

Illia Danilishyn, Oleksandr Danilishyn

MATHEMATICAL UNCERTAINTIES AND THEIR APPLICATIONS

Monograph



Primedia eLaunch

Illia Danilishyn, Oleksandr Danilishyn

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Edited by *Volodymyr Pasynkov*

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Epigraph 1:

Mathematics is on the border of science (knowledge), so it is she who is able to make major breakthroughs beyond this border.

Epigraph 2:

We will still leave our cozy world for other worlds in order to return....

Reviewer: Volodymyr PASYNKOV

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The monograph first task: to understand hierarchy of energies in the Universe and the principles of functioning of living energy (living organism, in particular, human, subtle energies), and then using these principles to "construct" artificial living energies (let's call them pseudo-living energies). It is possible to significantly expand the horizons of science, in particular physics, by studying the subtle energies in the Universe. On the basis of mathematical uncertainties, new mathematical structures are formed, allowing us to describe processes and objects that are fundamentally not determined by conventional deterministic methods. Here is considered new mathematical uncertainties. Objective uncertainties in any case can mean manifestations of processes and objects that are fundamentally not determined by conventional deterministic methods. Many energies are indeterminate because they are based on uncertainties from the perspective of traditional science—large concentrations of specific energy in a chaotic state. The foundation of dynamic mathematics lies in working with uncertainties, which makes it possible to manipulate these indeterminate energies using direct-accumulative direct-parallel neural networks. The second task of the monograph is to construct a new mathematical apparatus for neural networks of a fundamentally new type: direct-parallel and direct-accumulative action. We construct models of singularities for singular work with them through neural networks - analogues of the human CNS. Ordinary regular work with them in ordinary science is fundamentally unable to realize their capabilities. Therefore, singular science realized on a neural network - an analogue of the human CNS - will be much more natural. Unfortunately, we do not have funding to perform the necessary experiments and the practical creation of a technical model of such a neural network. There is a need to develop an instrumental mathematical base for new technologies. The task of the work is to create new approaches for this by introducing new concepts and methods. Our mathematics is unusual for a mathematician, because here the fulcrum is the action, and not the result of the action as in classical mathematics. Therefore, our mathematics is adapted not only to obtain results, but also to directly control actions, which will certainly show its benefits on a fundamentally new type of neural networks with directly parallel calculations, for which it was created. Any action has much greater potential than its result. It is time for physicists to begin studying not only the manifestations of living energies, but also the living energies themselves, which are by no means expressed through objectivity and ordinary energies, although they are capable of manifesting themselves through a lower level - objectivity and ordinary energies. We, as mathematicians, offer a new corresponding apparatus for understanding nature and studying living energies. Significance of the article: in a new qualitatively different approach to the study of complex processes through new mathematical, hierarchical, dynamic structures, in particular those processes that are dealt with by Synergetics. The significance of our article is in the formation of the presumptive mathematical structure of subtle energies, this is being done for the first time in science, and the presumptive classification of the mathematical structures of subtle energies for the first time. The experiments of the 2022 Nobel laureates Asle Ahlen, John Clauser, Anton Zeilinger and the experiments in chemistry Nazhipa Valitov eloquently demonstrate that we are right and that these studies are necessary. Be that as it may, we created classes of new mathematical structures, new mathematical singularities, i.e., made a contribution to the development of mathematics.

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Foreword:

In this book, the authors develop the themes of the books [40], [42], [47] in more interesting dynamic structures. The foundation of dynamic mathematics lies in working with uncertainties, which makes it possible to manipulate these indeterminate energies using direct-accumulative direct-parallel neural networks. Significance of the monograph: mathematical uncertainties and their applications, in a new qualitatively different approach to the study of complex processes through new mathematical hierarchical dynamic structures, in particular those processes that are dealt with by Synergetics. Constructing pseudo-living energy is Uncertainty constructing first of all, which correspond to singularity. Authors' approach is not based on deterministic equations that generate self-organization, which is very difficult to study and gives very small results for a very limited class of problems and does not provide the most important thing - the structure of self- organization. They are just starting from the assumed structure of self- organization, since they are interested not so much in the numerical calculation of this as in the structure of self-organization itself, its formation (construction) for the necessary purposes and its management. Although they are also interested in numerical calculations. Nobel laureates in physics 2023 Ferenc Kraus and his colleagues Pierre Agostini and Anna Lhuillier used a short-pulse laser to generate attosecond pulses of light to study the dynamics of electrons in matter. According to their Theory of singularities of the type synthesizing, its action corresponds to singularity $\uparrow I \downarrow q h$, which allows one to reach the upper level of subtle energies to manipulate lower levels. In April 2023 [14], the authors proposed using a short- pulse laser to achieve the desired goals by a directly parallel neural network. They then proposed the fundamental development of this directly parallel neural network. There is a long overdue need for the use of singular hierarchical structures, in particular self-sets, to describe complex processes, in particular to describe unusual states of consciousness and pathological conditions in medicine.

The experiments of Nobel laureates in 2022-year Asle Ahlen, Clauser John, Zeilinger Anton correspond to the concept of the Universe as its self-containment in itself. The monograph aims to create new constructive hierarchical mathematical objects for new technologies, particularly for a fundamentally new type of neural network with parallel computing and not the usual parallel computing through sequential computing.

Ukraine, April 2025
Volodymyr Pasynkov

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Introduction

On the basis of mathematical uncertainties, new mathematical structures are formed, allowing us to describe processes and objects that are fundamentally not determined by conventional deterministic methods. Objective uncertainties in any case can mean manifestations of processes and objects that are fundamentally not determined by conventional deterministic methods. Many energies are indeterminate because they are based on uncertainties from the perspective of traditional science—large concentrations of specific energy in a chaotic state. The foundation of dynamic mathematics lies in working with uncertainties, which makes it possible to manipulate these indeterminate energies using direct-accumulative direct-parallel neural networks. The task of the monograph is to construct a new mathematical apparatus for neural networks of a fundamentally new type: direct-parallel and direct-accumulative action. We construct models of singularities for singular work with them through neural networks - analogues of the human CNS. Ordinary regular work with them in ordinary science is fundamentally unable to realize their capabilities. Therefore, singular science realized on a neural network - an analogue of the human CNS - will be much more natural. Unfortunately, we do not have funding to perform the necessary experiments and the practical creation of a technical model of such a neural network. The task does not include formalization of this apparatus. This is the task of the following publications.

Part I. Mathematical uncertainties and their applications

Introduction

The capacity for uncertainty may be any. Such uncertainties can be conditionally designated: a) in probability theory through ${}_0^1|$ (by dynamic operator $Sprt_X^{\{xp\}}$, where X is distribution of a random variable $\{x\}$ with probabilities $\{p\}$), b) $\uparrow_{-1}^1| \downarrow$ for $\sin^\infty$, c) $\overset{A}{B}|_g^f$, d) $\overset{A}{B}|\overset{A}{B}|$. Any oscillation (wave) in the limit gives an uncertainty type $\uparrow_D^Q| \downarrow$.

For effective results, you should use an uncertainty in total. May consider forms and structures of uncertainties, including with ∞ -uncertainties, self-emptiness, self-manifestation. It is our direct-accumulative approach through dynamic operators that allows us to construct the regular necessary uncertainties. Each subtle energy has its own uncertainties and vice versa. Using SmnSprt-construction of such energy uncertainties through the corresponding dynamic programs [16], we gain access to these subtle energies. A failure in a normal computer system will automatically switch to operation mode of SmnSprt. There are no failures in operation, paradoxes, there are new elements and new possibilities. The system will work like this: if B is not defined in the system, then B will be defined as a new element and the system will work with it (in particular, through ||||[18]) and with a new operator according to its structure. For example, the operator $\uparrow\downarrow(A) = \forall B$, an operator transformer, a program operator transformer, a virtual operator, a program virtual operator, dynamic operator with «scenario» changes, dynamic program operator with «scenario» changes etc. The computer is an example of dynamic operator. The program operator of uncertainty type A leads to the energy A. The fuzzy program operator of uncertainty type A leads to the fuzzy energy A.

1.1 Mathematical uncertainties

For any uncertainty, we can "construct" a dynamic operator and then work through it. For example, for uncertainty B at point w, we get $B = {}^w_Sprt^Q_D$ [16]. After choosing Q and D we get the tool for work. It is possible to set the necessary uncertainties on a special filter and transmit UHF (or ultraviolet or pulses of a short-pulse laser) through it to form a program operator when constructing energy to perform the necessary goals. A program's appeal to itself makes it a self-program, from which oself will help to exit. May use recurrent method of constructing pseudo-living energy. An uncertainty form is a qualitative leap compared to the pre-limit form of its process, i.e., is an element of another space of a higher level, i.e., it is a "hole" (passage) between these spaces.

May consider the new dynamic operator $SIprt_B^A = A|||_B B$, $|||_B$ is $|||$ in norm(format) of B.

As soon as we start working with uncertainty, it ceases to be uncertainty and becomes certainty.

Uncertainties are “holes” through which, with the right settings, the right actions can be performed to obtain the appropriate results, in particular, "loopholes" to other worlds. They correspond to subtle energies that allow you to do this. Uncertainty usually corresponds to a large concentration of elements in it with large changes in them. This gives it great opportunities. Transforming uncertainties through $|||$, we get singularities, or better to say that many singularities correspond to uncertainties through $|||$. Any Uncertainty correspond to energy type. Random events are uncertainties type, where probability is a certainties measure and entropy - a uncertainties measure. Also, it is for fuzzy. Uncertainties are higher level elements than usual ones, in particular, self- level elements and higher. Manifestations of such energies at our level give uncertainties. Constructing pseudo-living energy is Uncertainty constructing first of all, which correspond to singularity. Then needed dynamic program operator works in $SmnSprt$ activation. May consider regular uncertainties with weights, random uncertainties, singular uncertainties, hierarchical uncertainties, uncertainty operators as program as mathematics. For example, $Sprt_w^{\{A|q\}}$ [16], q are weights, $A = (|||, self, oself, self -oself, paself, \dots, pa|||, pa(self -oself), etc)$. The probability theory is as «bridge» between mathematics and dynamic mathematics.

Paradox I: more singular than all singularities, it turns out: more singular than itself, and this is self by singularity(*decignation – singelf A*).

Paradox II: more paradoxical than all paradoxes, it turns out: more paradoxical than itself, and this is self by paradoxicality(*decignation – parelf A*).

Paradox I: more singular than all singularities, it turns out: more singular than itself, and this is self by singularity(*decignation* – *singelf* A).

Paradox II: more paradoxical than all paradoxes, it turns out: more paradoxical than itself, and this is self by paradoxicality(*decignation* – *parelf* A).

May consider the next hierarchy:

$$(1.1^*) \quad \left(\begin{array}{c} \dots \\ \text{parelf } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \text{singelf } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \text{subtle energy of uncertainty } A \text{ paradoxical upper level } (pa|||) \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \text{subtle energy of uncertainty } A \text{ paradoxical mid-level } \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ / \\ \text{subtle energy of } |||^{-1} \quad \overline{\overline{\overline{A}}} \\ \left(\overline{\overline{\overline{A}}} \right) \end{array} \right) \leftarrow \begin{array}{c} \text{subtle energy of } ||| \\ \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \\ \left(\overline{\overline{\overline{A}}} \right) \end{array} \left(\text{ordinary energy exhibited by an uncertainty } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \leftarrow \text{the raw energy of an uncertainty } A \left(\text{decignation} - A \right) \right)$$

$\overline{\overline{\overline{A}}}$ leads to the interpretation of our world in a significantly narrowed and detailed form, which creates the illusion of another world. Access to it is not safe, since it can lead to the collapse of the self of a living organism and its death, but despite this, it is practiced by some people.

Remark. Energy of a living organism:

$$g(r, a(E_q)) = \text{sprt} \left\{ \begin{array}{c} q \left({}^a\text{sprt}_a^a \right) \\ W_q \end{array} f \text{sprt}_{q \left({}^a\text{sprt}_a^a \right)}^{E_q}, \quad f \text{sprt}_{d_r \left(E_{in}^{l^{d_r}} \right)}^{\{E^{ex} l^{d_r}\}} \right\}_{t_0} (**_1).$$

${}^a\text{sprt}_a^a$ -internal energy of a living organism, q- a gap in the energy cocoon of a living organism, r-the position of the assemblage point d_r on the energy cocoon of a living organism, W_q - energy prominences from the center through the gap in the cocoon of a living organism has oself-type, E_q -external energy entering the gap in the cocoon of a living organism has (self-oself)-type, $E^{ex} l^{d_r}$ - a bundle of fibers of external energy self-capacities from outside the cocoon, collected at the point of assembly of the cocoon of a living organism at time t_0 , $E_{in} l^{d_r}$ - a bundle of fibers of

external energy self-capacities from inside the cocoon, collected at the point of assembly of the cocoon of a living organism in the same position r of the assemblage point d_r . d_r is the subject of identifying the energy fibers of the subtle energy of the Universe in position r both outside and inside the cocoon. The energy of a living organism consists of a "light" part represented by an energy cocoon, the self-level of layers of which increases from the edge to the center and an object part. May consider the equation for a :

$${}_a^a \text{Sprt}_a^a = g(r, E^{ex} l^{d_r}, a, E_q, t_0) (**_{1.1}).$$

Energy of a living organism of a person:

$$pg(r, a(E_q)) = \text{Sprt} \left\{ \begin{matrix} q({}_a^a \text{Sprt}_a^a) \\ W_q \end{matrix} f \text{Sprt}_{q({}_a^a \text{Sprt}_a^a)}^{E_q}, f \text{Sprt}_{d_r \left(\text{self}(E_{int} l^{d_r}) \right)}^{E^{ex} l^{d_r}} \right\}_{t_0} (***_1).$$

$(**_1)$, $(***_1)$ can be interpreted as Sprt- program operators. The treatment consists of restoring the balance between the energetic light and objective parts. The development process begins with the appearance of light energy, part of which gradually turns into an objective one, which more resistant to stress, "holds" the light. Since both parts: light and objective are in parallel, then through any of them it is possible to manipulate the other part. Double has the energetic light part only, since its development and learning took place in dreams, i.e., outside the objective world. May consider the equation for a :

$${}_a^a \text{Sprt}_a^a = pg(r, E^{ex} l^{d_r}, a, E_q, t_0) (***_1).$$

1.2 Regular uncertainties

All dynamic operators belong to the class of regular indeterminacies, for example, $A|_B$ is all from B to A, and their degenerations belong to the class of singular indeterminacies.

1.3 Singular uncertainties

- 1) self-type uncertainties, 2) self_D-type uncertainties, 3) ||-type uncertainties,
- 4) ||_D-type uncertainties, 5) paself-type uncertainties, 6) paself_D-type

uncertainties, 7) pa|||-type uncertainties, 8) pa|||_D-type uncertainties, 9) anyC|||-type uncertainties, 10) anyC|||_D-type uncertainties, 11) $\uparrow_B^A|\downarrow$, 12) fuzzy self_D-type uncertainties, 13) fuzzy |||-type uncertainties, 14) fuzzy |||_D-type uncertainties, 15) fuzzy paself-type uncertainties, 16) fuzzy paself_D-type uncertainties, 17) fuzzy pa|||-type uncertainties, 18) fuzzy pa|||_D-type uncertainties, 19) fuzzy anyC|||-type uncertainties, 20) fuzzy anyC|||_D-type uncertainties, 21) fuzzy $\uparrow_B^A|\downarrow$, 22) fuzzy self-type uncertainties, 23) s3i = 3-si

$$= \frac{\text{pa} ||| - (\text{self} - \text{type})}{|||}, \text{ 24) } s3i(A) = \frac{A |||(-A) - (\text{self}A)}{A |||A}, \text{ 25) } s3i(A,B) = \frac{(A)(\text{pa} |||)(B) - (\text{self}A) \& (\text{self}B)}{A |||B}, \text{ 26) } s3i = (\text{pa} |||) ||| (|||) ||| (\text{self}) \text{ 27) }$$

$${}^w_Sprt = |||_D^{-1}W \text{ 28) } o\text{self} \binom{d}{g} w = {}^{w,d}_{w,g}Sprt, \text{ 29) } \text{self} \binom{d}{g} w = Sprt^{w,d}_{w,g}, m$$

$$\text{self} \binom{b}{g} \binom{c}{d}^a = {}^{a,c}_{a,d}Sprt^{a,b}_{a,g}, m\text{self} \binom{b}{g} \binom{c}{d}^a Q = \frac{(actions \ Q, f)^{-1}}{Q, d} \text{SDS}$$

Subject of Q, w

Subject of Q, u

$\frac{Q, b}{actions \ Q, j}$ etc. There are an infinite number of possible singular types.
 $\frac{Q, g}{}$

All singularities in [18, 21, 28] are singular uncertainties. A singularity by form Q will be called Q-singularity. We construct all singularities for singular work.

self A in a larger structure occupies free "places" with links to itself. A full self occupies everything in the structure, a partial one - a part. Therefore, we will denote a partial selfA as follows: selfA||q(selfA), q(selfA) is part of links for A to itself, which is in selfA in comparison with the capabilities of the full base structure where it is implemented. q(selfA) measured from 0 to 1, 0 - no self, 1 -

full self ($q(\text{self}A)$ not specified by default in this case). For example, $\text{self}A||q(A|||B)$, $(|||)||q(|||)$, $\text{self}||q(|||)$ etc. Both types of operations self-type and $|||$ -type lead to upper levels. self-type operations are an extension in format $Sprt_{places\ of\ space}^{objects}$ and a compression in format $Sprt_{objects}^{places\ of\ space}$, $|||$ -type operations are an extension in format $Sprt_{objects}^{places\ of\ space}$ and a compression in format $Sprt_{places\ of\ space}^{objects}$. Let's denote type operations: (an extension in format $Sprt_{places\ of\ space}^{objects}$)pa $|||(a$ compression in format $Sprt_{places\ of\ space}^{objects}$) through Uno, (an extension in format $Sprt_{objects}^{places\ of\ space}$)pa $|||(a$ compression in format $Sprt_{objects}^{places\ of\ space}$) through Unsp, $(Sprt_{objects}^{places\ of\ space})pa$ $|||(Sprt_{places\ of\ space}^{objects})$, $(Sprt_{places\ of\ space}^{objects})|||(Sprt_{objects}^{places\ of\ space})$, $(anyQ)pa|||(anyP)$ etc.

If self corresponds to form (1.1): (1, (2, 1)), $|||$ corresponds to form (2, 1) then form (0, 1) will correspond to $\{\}_{a}Sprt$, (0, 2) will correspond to $\{\}_{b,a}Sprt$ etc. The form (2, 1/3) will correspond to $|||_{\frac{1}{3}}$, (2, q) will correspond to $|||_q$, q is any, for example, with $q = 0$ we get $|||_0$, with $q = -1$ we get $|||_{-1}$ etc. The form (1/3, (2, 1)) will correspond to self^3 , (q, (2, 1)) will correspond to $\text{self}^{q^{-1}}$, q is any, for example, (1, (3, 1)) will correspond to $\text{self}^{3/2}$, (-1, (2, 1)) will correspond to self^{-1} etc. May consider $R = (\text{self}|\mu_1, ||| \mu_2, ||| \text{self}, \text{self} |||, ||| \text{self}, \text{self} |||, \uparrow_{\text{self}} ||| \downarrow, \uparrow_{\text{self}} ||| \downarrow)$. The form (4, 1) in format $Sprt_{objects}^{places\ of\ space}$ will correspond to self^3 in format $Sprt_{objects}^{places\ of\ space}$. The form (n, 1) in format $Sprt_{objects}^{places\ of\ space}$ will correspond to self^{n-1} in format $Sprt_{objects}^{places\ of\ space}$. The form (n, m) in format $Sprt_{objects}^{places\ of\ space}$ will correspond to $\text{self}^{(n-1)/m}$ in format $Sprt_{objects}^{places\ of\ space}$. The form (D, Q) in format $Sprt_{objects}^{places\ of\ space}$ will correspond to $s_Q^D \text{elf}(\text{designation})$, $s_Q^D \text{elf-type}(\text{designation})$ in format $Sprt_{objects}^{places\ of\ space}$. The form (R, (D, Q)) will correspond to $s^R e_Q^D \text{lf}(\text{designation})$, $s^R e_Q^D \text{lf-type}(\text{designation})$. The any structure Q will correspond to $s_Q \text{elf}(\text{designation})$, $s_Q \text{elf-type}(\text{designation})$.

$$\text{May consider } s_Q \text{ } |||_Q = \begin{array}{c} s_Q^{\text{elf}} - \text{type} \\ | \\ |||_Q - \text{type} \end{array} - \begin{array}{c} |||_Q - \text{type} \\ | \\ s_Q^{\text{elf}} - \text{type} \end{array}, ||| - \text{type}$$

actions(operations), $|||_Q$ -type actions (operations) etc.

To work regularly with singular uncertainty, you need to introduce this singular uncertainty as a new basic element and then work with it regularly. May “construct” dynamic operator for an uncertainty. For example, $Sprt_x^{\{A\}}$ corresponds to uncertainty x with values $\{A\}$. $Sprt_X^{\{x|p\}}$ corresponds to distribution X of a random variable x, i.e., corresponds to dynamic operator with "target weights" $\{p\}$. May consider t-uncertainty, for example, $Sprt_w^{\{t|q\}}$, $\{t|q\}$ -time set with "weights" q, (x,t)-uncertainty etc. May use a virtual uncertainty. May consider the self-uncertainty. So far, we have considered uncertainties, which we will call regular. At the limit transitions from certainties only regular uncertainties. Paradoxs are examples of singular uncertainties type, in particular and $pa|||$, $pa_1||| = |||(|||)||||^{-1}$, $pa_2||| = |||(||||^{-1})|||^{-1}$. May consider the structure- uncertainty, an uncertainty of spiral type. $|||$ is an uncertainty upper lim. May consider: 1) the uncertainty, 2) the uncertainty by $|||$, 3) the partial uncertainty, 4) the undetermined uncertainty, 5) the self-uncertainty etc. Self-uncertainty is the uncertainty, which forms by itself (values of which forms by itself). May consider the uncertainty of uncertainties (with values -uncertainty). May consider relative uncertainty: Un_B^A is the uncertainty A relative B. May consider relative $|||$ and complete $|||$. May try to uncertain work of type A with uncertainty A. May try to self-uncertain work of type A with self-uncertainty A. And their subject must be of an even higher level.

1.4 Algebra of Singular Transformations

Consider the random dynamic random set

$$\begin{array}{c} A \\ \text{SUprt } p \text{ } (**_2), \\ B \end{array}$$

where random $A = (a_1, a_2, \dots, a_n)$ appear into the event B with probabilities $p = (p_1, p_2, \dots, p_n)$, the result of this process will be described by the expression

$$\sum_{B}^A p (**_2).$$

Here we consider the transformation of any processes, actions, objects, in particular, sets through structures. For example, the capacity $S_3 Uf p_1$ in itself with m elements from $\tilde{x}$, $m < n$, which is formed according to the form

$$w_{mn} = (m, (n, 1)) \quad (1.1)$$

that is, the structure $\sum_{q} p_1$ contains only m elements. Form (1.1) can be generalized into the following forms:

$$w_{m,n,k}^1 = (k, \left(\begin{matrix} (n_1, 1) \\ \dots \\ (n_m, 1) \end{matrix} \right)) \quad (1.1.1)$$

or

$$w_{m,n,k}^2 = (k, (l, \left(\begin{matrix} (n_1) \\ \dots \\ (n_m) \end{matrix} \right))) \quad (1.1.2)$$

$$w_{m,n,k,l}^3 = Q \left(\begin{matrix} d_1 & (n_1, 1) \\ \dots & \dots \\ d_l & (n_m, 1) \end{matrix} \right), \quad (1.1.3),$$

where $Q(x, y)$ – any operator, which makes a match between set $\left(\begin{matrix} d_1 \\ \dots \\ d_l \end{matrix} \right)$ and set $\left(\begin{matrix} (n_1, 1) \\ \dots \\ (n_m, 1) \end{matrix} \right)$ or

$$w_{m,m_1,n_1,m_2,n_2,m_3,n_3}^4 = (m, ((m_1, n_1), ((m_2, n_2), (m_3, n_3)))) \quad (1.1.4),$$

or

$$w_{m_1,n_1,\dots,m_k,n_k,l_k,q_k,s_k,r_k}^5 = (n_1, (m_1(\dots(n_k, (m_k(l_k(q_k, s_k)), r_k))\dots))) \quad (1.1.4.1),$$

or

$$w_{B_1, A_1, \dots, B_k, A_k, Q_k, R_k, D_k, P_k}^6 = (A_1, (B_1(\dots(A_k, (B_k(Q_k, (R_k, D_k))), P_k))\dots)) \quad (1.1.4.2),$$

or

$$w_{m_1, n_2, \dots, m_k, n_k, l_k, q_k, s_k, r_k}^5 = (m_1(\dots(n_k, (m_k(l_k, (q_k, s_k))), r_k))\dots) \quad (1.1.4.3),$$

or

$$w_{B_1, A_2, \dots, B_k, A_k, Q_k, R_k, D_k, P_k}^6 = (B_1(\dots(A_k, (B_k(Q_k, (R_k, D_k))), P_k))\dots) \quad (1.1.4.4),$$

or

$$(Q, R) \quad (1.1.5),$$

where Q – any, R – any structure, R could be anything can be anything, not just structure. In this case, (1.1.5) can be used as another type of transformation from Q to R. Capacities in themselves of the third type can be formed for any other structure, not necessarily SUPrt, only by necessarily reducing the number of elements in the structure, in particular, using form

$$w_{m_1 \dots m_n} = (m_1, (m_2, (\dots(m_n, 1)\dots))) \quad (1.2)$$

Structures more complex than S₃Uf can be introduced. For example, through a form that generalizes (1.1):

$$w_{ABC} = (A, (B, C)) \quad (1.3)$$

where A is compressed (fits) in C in the compression structure B in C (i.e., in the

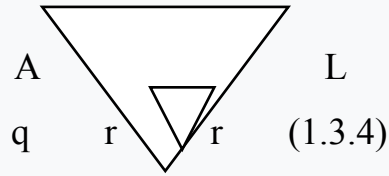
structure SUPrt $\tilde{p}_1$); or
q

$$w_{ABC} = A \quad \begin{array}{c} B \\ \swarrow \searrow \\ \triangle \\ \downarrow \\ C \end{array} \quad (1.3.1)$$

$$\begin{array}{c} A \quad (B, C) \\ \swarrow \searrow \\ G \quad Q \end{array} \quad (1.3.2)$$

$$\begin{array}{c} A \quad R \quad Q \\ \swarrow \searrow \quad \swarrow \searrow \\ \quad V \end{array} \quad (1.3.3)$$

S



or through the more general form that generalizes (1.2):

$$w_{A_1 A_2 \dots A_n C} = (A_1, (A_2, (\dots (A_n, C) \dots))) \quad (1.4)$$

$\tilde{x}$

that is, the structure $SUP_{prt} p_1$ contains only m elements, or in forms (1.1) - q

(1.1.5), summarizing it. Capacities in themselves of the third type can be formed for any other structure, not necessarily SUP_{prt} , only by necessarily reducing the number of elements in the structure, in particular, using form (1.2). Structures more complex than S_3Uf can be introduced. For example, through a form (1.3), where A is random compressed (random fits) in C in the random compression

random structure B in C (i.e., in the random structure $SUP_{prt} p$); or through the forms (1.3.1) - (1.4) and corresponding generalizations of (1.4) on (1.3.1) - (1.3.4), etc.

(1.3.1) - (1.3.4) schematically interpret the random formation of random capacity in itself through a pseudo 3-connected form with a 2-connected form. The ideology of SUP_{prt} and SU_3f can be used for programming.

Remark 1.1. Random self, in particular, according to a random form- random analogue of the form of type (1):

$$(1 \parallel p_1, (2 \parallel p_2, 1 \parallel p_3)) \quad (1.1^{**}),$$

p_i ($i=1,2,3$)— the probabilities of the indicated positions. For example,

1) random forming from element with probability p in the form $\{2,1\}$: $(1 \parallel p, (2,1))$

- 2) random forming from element in the form $\{2,1\}$ with probability p : $(1, (2,1))$ m)
- 3) random formation of partial self in the form $(1,1)$ with probability p : $(1, (2,1))$ m
- 4) It is also possible to generalize the other remaining forms $(1,1) - (2,4)$ to random forms
- 5) etc.

A transformation can be built for any structure.

Remark 1.2. Any singular action is a transformation.

(1,b)-singular transformations

For example, $(1_L, 4_Q)$ corresponds to L located in 4 places of Q simultaneously

(designation $\begin{smallmatrix} 4_Q \\ 1_L \end{smallmatrix} \text{self}^3$), $(1_L, N_Q)$ corresponds to L located in N places of Q

simultaneously (designation $\begin{smallmatrix} N_Q \\ 1_L \end{smallmatrix} \text{self}^{N-1}$). Each of these places will have its own

specificity of this self depending on the specificity of the place. For example, the energy double of a highly developed person is such a specificity for the life of a person in dreams, in contrast to another place of his self - in wakefulness. The self in wakefulness was obtained from the corresponding upbringing of a person in wakefulness, another place of the self - in dreams was also prepared by the corresponding upbringing.

Each of these places has its own area of definition up to hierarchical areas of definition, which can be self-type.

And each part of the original self from its different places can manifest itself in any of these areas of definition in its own way.

For example, $(1, 1/2)$ corresponds to self^1 , $(1, 1/3)$ corresponds to $\text{self}^{3/2}$, $(1, 1/n)$ corresponds to $\text{self}^{n/2}$. May consider $(1, \quad)$, $(1, \text{any geometric figure})$, $(1, \text{CNS})$ is a neuron, $(1_L, \text{any } C)$ will be designated $\begin{smallmatrix} C \\ 1_L \end{smallmatrix} \text{self}$.

(a, l)-singular transformations

For example, $(4_L, 1_Q)$ corresponds to $|||$ 4 objects from L located in 1 place of Q

simultaneously (designation $\frac{1_Q}{4_L}|||$), $(N_L, 1_Q)$ corresponds to $|||$ N objects from L

located in 1 place of Q simultaneously (designation $\frac{1_Q}{N_L}|||$). $pa||| = (|||)|||(|||^{-1}) = ($

$|||^{-1})|||(|||) = pa\text{self}(|||)$. $pa^2||| = (pa|||)|||((pa|||)^{-1}) = ((pa|||)^{-1})|||(pa|||) = pa^2\text{self}(pa$

$|||)$, $(|||)|||(\text{self})$, $RP_1(n, pa) = pa(|||)pa|||(pa\text{self})$, ..., $RP_m(n, pa) = pa^n(|||)pa^n$

$|||(pa^n\text{self})$, ..., $RP = \lim_{m \rightarrow \infty} RP_m(n, pa)$,

$$\left(\begin{array}{c} \dots \\ \text{parelf} (RP) \\ \text{singelf} (RP) \\ \text{subtle energy of } pa||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ RP \end{array} \right) \\ / \qquad \backslash \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{c} RP \\ \equiv \\ \equiv \\ \left(RP \right) \\ \underline{RP} \end{array} \qquad \begin{array}{c} \begin{array}{c} \equiv \\ \equiv \\ \equiv \\ RP \end{array} \\ \begin{array}{c} \overline{RP} \\ \overline{RP} \\ \left(\overline{RP} \right) \end{array} \\ \leftarrow RP \end{array} \end{array} \right) \text{ etc.}$$

This is all in the usual 2-interpretation (for example, $(1, m)$ for self, $(n, 1)$ for $|||$), which generates hierarchies. Examples:

$$\begin{array}{ccccccc}
 & & 3 - \text{self} & & & 3 - ||| & \\
 & 1 & m & - & n & & 1 \\
 & & d & & & q & \\
 3\text{-interpretation:} & & & | & & & , 4\text{-interpretation:} \\
 & & & r & l & &
 \end{array}$$

$$\begin{array}{ccccccc}
 & & 4 - \text{self} & & & 4 - ||| & \\
 & 1 & m & - & n & & 1 \\
 g & & h & & e & & u \\
 & & & | & & & \\
 & t & y & & j & & l \\
 & & & - & & & \\
 w & & f & & o & & p
 \end{array}$$

Remark 1.3. Since 2-interpretation does not fully reflect the world, hierarchies are introduced to somehow supplement the reflection of the world. Of course, this allows for a better reflection of the world, but a significant part of the singularities of the world is lost.

(a,b)-singular transformations

For example, (M_L, N_Q) corresponds to M objects from L located in N places of Q simultaneously.

For example, (A_L, B_Q) corresponds to A from L located in B of Q simultaneously.

Remark 1.4. $(1, \text{human } A)$ corresponds to DNA of human A. $(\text{human } A, 1)$ corresponds to soul of human A.

The structures considered at the beginning of the section are sometimes reduced to simpler ones. For example, $(1, (1, n))$ to $(1, n)$, $(M, (M, 1))$ to $(M, 1)$. These structures considered at the beginning of the section can be applied to any other,

$$\begin{array}{c}
 \tilde{x} \\
 \text{not necessarily only to the structure } S \text{ up to } p_1. \\
 q
 \end{array}$$

Singularity by Q will be called Q-singularity. May consider singular functions with singular arguments: $\text{self}(||)|$, $|||(\text{self})$, $\text{pa}\text{self}(||)|$, $\text{pa}|||(\text{self})$, $\text{self}(\text{pa}|||)$, $|||(\text{pa}\text{self})$, $\text{pa}\text{self}(\text{pa}|||)$, $|||_Q(\text{self}_Q)$, $g(N, |||) = \text{self}^N(||)|$, $g(B, |||)$, $g(||, |||)$, $|||^N(\text{self})$, $d(N, |||) = \text{pa}\text{self}^N(||)|$, $d(B, |||)$, $d(||, |||)$, $\text{pa}|||^N(\text{self})$, $\text{self}^N(\text{pa}|||)$, $v(N, \text{pa}$

self) = $\| \| ^N(\text{ paself), } v(B, \text{ paself), } v(\text{ paself, paself), paself}^N(\text{ pa}\| \|), \| \| _Q^N(\text{ self}_Q)$
etc.

$$\left(\begin{array}{c} \dots \\ \text{parelf}(\text{D1}) \\ \text{singelf}(\text{D1}) \\ \text{subtle energy of pa}\| \| \\ \left(\begin{array}{c} \overline{\overline{\overline{\text{D1}}}} \end{array} \right) \\ \\ / \qquad \qquad \qquad \backslash \\ \text{subtle energy of } \| \| ^{-1} \quad \text{subtle energy of } \| \| \\ \begin{array}{c} \overline{\overline{\overline{\text{D1}}}} \\ \left(\overline{\overline{\overline{\text{D1}}}} \right) \\ \overline{\overline{\overline{\text{D1}}}} \end{array} \qquad \begin{array}{c} \overline{\overline{\overline{\text{D1}}}} \\ \overline{\overline{\overline{\text{D1}}}} \\ \left(\overline{\overline{\overline{\text{D1}}}} \right) \\ \leftarrow \text{D1} \end{array} \end{array} \right),$$

$$\left(\begin{array}{c} \dots \\ \text{parelf}(\text{g}(\text{B}, \| \|)) \\ \text{singelf}(\text{g}(\text{B}, \| \|)) \\ \text{subtle energy of pa}\| \| \\ \left(\begin{array}{c} \overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \end{array} \right) \\ \\ / \qquad \qquad \qquad \backslash \\ \text{subtle energy of } \| \| ^{-1} \quad \text{subtle energy of } \| \| \\ \begin{array}{c} \overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \\ \left(\overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \right) \\ \overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \end{array} \qquad \begin{array}{c} \overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \\ \overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \\ \left(\overline{\overline{\overline{\overline{\text{g}(\text{B}, \| \|)}}} \right) \\ \leftarrow \text{g}(\text{B}, \| \|) \end{array} \end{array} \right),$$

$$\left(\begin{array}{c} \overset{\dots}{parelf}(V1) \\ singelf(V1) \\ subtle\ energy\ of\ pa||| \\ \left(\begin{array}{c} \overline{\overline{\overline{V1}}} \end{array} \right) \\ \\ / \qquad \backslash \\ subtle\ energy\ of\ |||^{-1} \quad subtle\ energy\ of\ ||| \\ \begin{array}{c} \overline{\overline{\overline{V1}}} \\ \left(\overline{\overline{\overline{V1}}} \right) \\ \underline{\underline{V1}} \end{array} \qquad \begin{array}{c} \overline{\overline{\overline{V1}}} \\ \overline{\overline{\overline{V1}}} \\ \left(\overline{\overline{\overline{V1}}} \right) \\ \leftarrow V1 \end{array} \end{array} \right).$$

May consider (1, self), (1, paself), (self, 1), (paself, 1), (|||, self), (self, |||), (pa|||, self), (paself, |||), (paself_Q^f, |||), (pa|||, paself), (self, pa|||), (|||, paself), (self_Q, |||_Q), (self_Q, |||_{selfQ}^D),

$\left(\begin{array}{c} N_Q \\ 1_L \end{array} self^{N-1}, \begin{array}{c} 1_Q \\ N_L \end{array} ||| \right), \left(\begin{array}{c} 1_Q \\ N_L \end{array} |||, \begin{array}{c} N_Q \\ 1_L \end{array} self^{N-1} \right)$ etc. paself_Q^f is paself by Q to the power of f.

May consider N-transformations, for example, 3-transformation =

(transformation) – (transformation)
|
(transformation), 4-transformation =

transformation – transformation
| – | etc. Example of pa||| : (self) |||(|||), self(|||),
transformation – transformation

||| (self,self), in the last two, ||| acts as an argument of function self(x), and self, as an argument of function ||| (x,y). You can enter a transformation operator

Tr(A, B): A to B. May consider

$$\left(\begin{array}{c} \text{parelf}(\text{transformation } Q) \\ \text{singelf}(\text{transformation } Q) \\ \text{subtle energy of } Q \text{ paradoxical upper level } (pa|||) \text{ (decignation - } \tilde{Q}) \\ \text{subtle energy of } Q \text{ paradoxical mid - level } \left(\text{decignation - } \frac{\equiv}{Q} \right) \\ \text{subtle energy of transformation } Q \text{ upper level } (\text{decignation - } \tilde{Q}) \\ \backslash \\ \text{subtle energy of } ||| \\ \text{subtle energy of } |||^{-1} \\ \frac{Q}{\equiv} \\ \left(\text{subtle energy of transformation } Q \text{ oself - level } \left(\text{decignation - } \frac{Q}{\equiv} \right) \right) \\ \text{ordinary energy exhibited by transformation } Q(\text{decignation - } \underline{Q}) \end{array} \right) \cdot \left(\begin{array}{c} \text{subtle energy of transformation } Q \text{ mid}_2 \text{ - level } \left(\text{decignation - } \frac{\equiv}{Q} \right) \\ \text{subtle energy of transformation } Q \text{ mid}_1 \text{ - level } \left(\text{decignation - } \overline{\overline{Q}} \right) \\ \text{subtle energy of transformation } Q \text{ mid}_0 \text{ - level } \left(\text{decignation - } \overline{Q} \right) \\ \leftarrow \text{the raw energy of transformation } Q(\text{decignation - } Q) \end{array} \right)$$

To create self-type (|||-type) singularity may use any form(structure), in general - any. For example, self-type by any G, self-type(||| - type) kind will depend on the choice of interpretation of the connections between elements of G. To create self-type (|||-type) singularity may use $\text{form}^N D = \text{form}(\dots (\text{form} D) \dots)$, $(\text{self}_Q^f - \text{type}) \text{form}^N D = (\text{self}_Q^f - \text{type}) \text{form}(\dots ((\text{self}_Q^f - \text{type}) \text{form} D) \dots)$, $\text{paself}_Q^f \text{form}^N D = \text{paself}_Q^f \text{form}(\dots (\text{paself}_Q^f \text{form} D) \dots)$ etc.

$$\left(\begin{array}{c} \text{parelf}(\text{form } H) \\ \text{singelf}(\text{form } H) \\ \text{subtle energy of } pa||| \\ \left(\frac{\equiv}{\text{form } H} \right) \\ \backslash \\ \text{subtle energy of } ||| \\ \text{subtle energy of } |||^{-1} \\ \text{form } \frac{H}{\equiv} \\ \left(\frac{H}{\equiv} \right) \\ \underline{H} \end{array} \right) \quad \left(\begin{array}{c} \text{subtle energy of } ||| \\ \text{form } \frac{\overline{\overline{H}}}{\overline{H}} \\ \left(\text{form } \overline{H} \right) \\ \leftarrow H \end{array} \right) \quad (**)$$

$$\left(\begin{array}{c} \dots \\ \text{parelf}((*)) \\ \text{singelf}((*)) \\ \text{subtle energy of pa}||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ (*) \end{array} \right) \\ \\ / \quad \backslash \quad (***) \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{c} (*) \\ \equiv \\ \equiv \\ \left(\begin{array}{c} (*) \\ \equiv \\ \equiv \end{array} \right) \\ \underline{(*)} \end{array} \quad \begin{array}{c} \begin{array}{c} \equiv \\ \equiv \\ \equiv \\ (*) \end{array} \\ \left(\begin{array}{c} (*) \\ \equiv \\ \equiv \end{array} \right) \\ \left(\overline{(*)} \right) \\ \leftarrow (*) \end{array} \end{array} \right)$$

by forms we mean any structures including hierarchical structures, instead form P may take self-type ($||| - \text{type}$) form P , paself-type ($\text{pa}||| - \text{type}$) form P , place-form P etc. There is no limit either in forms for creating self-type ($||| - \text{type}$) elements, paself-type ($\text{pa}||| - \text{type}$) elements or in the areas of definition of their parts. We can conditionally represent $(***)$ as a function of $(**)$: $(***)(**)$. Then we can consider the function $f((**),n) = (**)^n$, than $f((**),B)$ for any B , $f((**), (**))$ etc. May consider combined self-type ($||| - \text{type}$) form P , paself-type ($\text{pa}||| - \text{type}$) form P , place-form P etc. For example, $\uparrow_D^Q \downarrow$ is self by values and paself by directions. The combined self-type ($||| - \text{type}$) form P , paself-type ($\text{pa}||| - \text{type}$) form P may be from different parts of the self-type ($||| - \text{type}$), paself-type ($\text{pa}||| - \text{type}$) as by values, by directions, by places, by areas of definition etc.

May use for placeD of self $\text{place}^{\text{ND}} = \text{place}(\dots (\text{placeD})\dots)$, $(\text{self}_Q^f - \text{type})\text{place}^{\text{ND}} = (\text{self}_Q^f - \text{type})\text{place}(\dots ((\text{self}_Q^f - \text{type})\text{placeD})\dots)$, $\text{paself}_Q^f \text{place}^{\text{ND}} = \text{paself}_Q^f \text{place}(\dots (\text{paself}_Q^f \text{placeD})\dots)$ etc.

Remark 1.5. You can consider any designations to specify a singularity, not each of which it is fundamentally possible to carry out the usual interpretation. But for each such designation there is a corresponding natural singularity. Therefore, you can introduce any fundamentally new designation for further expansion of knowledge.

Hierarchical singularities

By form $(1, \frac{1}{1})$ will be called hierarchical self₂ (designation self_{2Hi}). By form $(\frac{1}{1}, 1)$ will be called hierarchical $|||_2$ (designation $|||_{2Hi}$). By form $(1, \frac{1}{\dots})$ will be called hierarchical self_n for n levels (designation self_{nHi}). By form $(\dots, 1)$ will be called hierarchical $|||_n$ for n levels (designation $|||_{nHi}$).

Hierarchical singular forms and formulars of N levels

Example of hierarchical equality: $\begin{pmatrix} \equiv \\ : \equiv \\ \equiv \\ : = \\ = \end{pmatrix}$.

Remark 1.6. May try to use paradoxical forms (designation paforms) for the task of new singularities.

Everything discussed above about Forms self-type ($|||$ – type) in this book is also applicable to Forms *singelf*-type (*parelf* – type). Here namely ∞ creates a self. You can symbolically display this as follows: selfD $\in$ (by D $\forall$ of D), i. e., selfD $\in$ (by D ∞ of D), D is any C, i. e., Q = (by (∞ C) ∞ of (∞ C)), selfR $\in$ (by R $\forall$ of R), i. e.,

selfR $\in$ (by R ∞ of R) (V^*),

R is any, for example, R is singularity or paradox or hierarchy or limit or $|||$ or $\uparrow$

$\frac{Q}{D} \downarrow, \uparrow \frac{Q}{D} \downarrow \uparrow \frac{Q}{D} \downarrow, \uparrow \frac{Q}{D} \downarrow \downarrow \frac{Q}{D} \uparrow$ etc. Paself(a) = $a ||| (-a) = \frac{a}{a} \text{Sprt}$, self(a) = $a ||| a =$

$\text{Sprt}_{\frac{a}{a}}^a, \frac{a}{a} \text{Sprt}_{\frac{a}{a}}^a = \text{paself}(a) ||| \text{self}(a)$.

Paradox III: more than any, it turns out: more any than itself, and this is self by any(*decignation* – *siany*).

Self-hierarchy ϵ (by hierarchy ∞ of hierarchy) (*decignation* – *sihier*). Self-structure ϵ (by structure ∞ of structure) (*decignation* – *sistr*). Self-energetic object ϵ (by energetic object ∞ of energetic object) (*decignation* – *sieno*). Self-interpretation ϵ (by interpretation ∞ of interpretation) (*decignation* – *siin*). Self= $\equiv$. Let us introduce the concept of Absolute Singularity(*decignation* – *siAbs*). Everything discussed above about Forms self-type ($|||$ – type) in this book is also applicable to Forms (V^*)-type. May consider $D(N, R) = (\dots (by (by R \infty of R), of (by R \infty of R)), \dots), D(\infty, R), D(B, R), D(R, R), D(\infty, \infty), T_1(N, siany) = D(N, siany), T_2(N, siany) = T_1(T_1(N, siany), siany), \dots, T_n(N, siany) = T_1(\dots(T_1(N, siany), siany)\dots), stin = \lim_{n \rightarrow \infty} T_n(N, siany)$ etc,

$$\begin{pmatrix}
\begin{array}{c}
\text{parelf}(\ddot{D}(B, R)) \\
\text{singelf}(D(B, R)) \\
\text{subtle energy of pa}||| \\
\left(\begin{array}{c} \overline{\overline{\overline{D(B, R)}}} \end{array} \right)
\end{array} \\
\\
\begin{array}{cc}
/ & \backslash \\
\text{subtle energy of } |||^{-1} & \text{subtle energy of } ||| \\
\begin{array}{c} \overline{\overline{\overline{D(B, R)}}} \\ \left(\overline{\overline{\overline{D(B, R)}}} \right) \\ \overline{\overline{\overline{D(B, R)}}} \end{array} & \begin{array}{c} \overline{\overline{\overline{D(B, R)}}} \\ \overline{\overline{\overline{D(B, R)}}} \\ \left(\overline{\overline{\overline{D(B, R)}}} \right) \\ \left(\overline{\overline{\overline{D(B, R)}}} \right) \\ \leftarrow D(B, R)
\end{array}
\end{array}
\end{pmatrix}
\\
\\
\begin{pmatrix}
\begin{array}{c}
\text{parelf}(\ddot{st}in) \\
\text{singelf}(s\ddot{in}) \\
\text{subtle energy of pa}||| \\
\left(\begin{array}{c} \overline{\overline{\overline{s\ddot{in}}}} \end{array} \right)
\end{array} \\
\\
\begin{array}{cc}
/ & \backslash \\
\text{subtle energy of } |||^{-1} & \text{subtle energy of } ||| \\
\begin{array}{c} \overline{\overline{\overline{s\ddot{in}}}} \\ \left(\overline{\overline{\overline{s\ddot{in}}}} \right) \\ \overline{\overline{\overline{s\ddot{in}}}} \end{array} & \begin{array}{c} \overline{\overline{\overline{s\ddot{in}}}} \\ \overline{\overline{\overline{s\ddot{in}}}} \\ \left(\overline{\overline{\overline{s\ddot{in}}}} \right) \\ \left(\overline{\overline{\overline{s\ddot{in}}}} \right) \\ \leftarrow s\ddot{in}
\end{array}
\end{array}
\end{pmatrix}
\end{pmatrix}
\text{ etc.}$$

May use self-type(||| – type), paself-type(pa||| – type), parelf-type, singelf-type forms for creating new singularities, in particular, self-type(||| – type), paself-type(pa||| – type), parelf-type, singelf-type. For example, self_A-form for B forms itself by A for self_AB, self_A-form for doer C forms itself by A for self_AC, self_A-form for any D forms itself by A for self_AD, |||_A-form can form a) any W |||self, b) self_A||| self_v etc. May consider

$$\left(\begin{array}{c} \overset{\dots}{\text{parelf}}(Q) \\ \text{singelf}(Q) \\ \text{subtle energy of } pa||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ Q \end{array} \right) \\ \\ - \qquad \qquad \qquad \backslash \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{c} Q \\ \equiv \\ \left(\begin{array}{c} Q \\ \equiv \end{array} \right) \\ \underline{Q} \end{array} \qquad \begin{array}{c} \\ \\ \begin{array}{c} \equiv \\ Q \\ \equiv \\ Q \\ \left(\begin{array}{c} Q \\ \equiv \end{array} \right) \\ \leftarrow Q \end{array} \end{array} \right) , Q = \text{self-type}(||| - \text{type}),$$

paself-type(pa||| – type), parelf-type, singelf-type forms. May consider $\psi_1(N, \text{self}) = \text{self}^N\text{-singularity}$, $\psi_2(N, \text{self}) = (\text{self-type})^N\text{-singularity}$, $\psi_1(N, \text{paself}) = \text{paself}^N\text{-singularity}$ $\psi_1(N, \text{singelf}) = \text{etc.}$ May consider $\psi_3(N, \text{paradox}) = \text{self}^N\text{-paradox}$, $(\text{self-type})^N\text{-paradox}$, $\text{paself}^N\text{-paradox}$, $\varphi(|||, n) = |||^n$,

$$\left(\begin{array}{c} \overset{\dots}{\text{parelf}}(\varphi(|||, n)) \\ \text{singelf}(\varphi(|||, n)) \\ \text{subtle energy of } pa||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ \varphi(|||, n) \end{array} \right) \\ \\ - \qquad \qquad \qquad \backslash \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{c} \varphi(|||, n) \\ \equiv \\ \left(\begin{array}{c} \varphi(|||, n) \\ \equiv \end{array} \right) \\ \underline{\varphi(|||, n)} \end{array} \qquad \begin{array}{c} \\ \\ \begin{array}{c} \equiv \\ \varphi(|||, n) \\ \equiv \\ \varphi(|||, n) \\ \left(\begin{array}{c} \varphi(|||, n) \\ \equiv \end{array} \right) \\ \leftarrow \varphi(|||, n) \end{array} \end{array} \right) ,$$

$$\begin{pmatrix}
\begin{array}{c}
\text{parelf}(\psi_1^{\dots}(\text{N}, \text{self})) \\
\text{singelf}(\psi_1(\text{N}, \text{self})) \\
\text{subtle energy of pa}||| \\
\left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ \psi_1(\text{N}, \text{self}) \end{array} \right)
\end{array} \\
- \\
\begin{array}{c}
\text{subtle energy of } |||^{-1} \\
\begin{array}{c} \psi_1(\text{N}, \text{self}) \\ \equiv \\ \equiv \\ \equiv \end{array} \\
\left(\begin{array}{c} \psi_1(\text{N}, \text{self}) \\ \equiv \\ \equiv \end{array} \right) \\
\psi_1(\text{N}, \text{self})
\end{array}
\end{pmatrix}
\begin{array}{c}
\backslash \\
\text{subtle energy of } ||| \\
\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ \psi_1(\text{N}, \text{self}) \end{array} \\
\begin{array}{c} \psi_1(\text{N}, \text{self}) \\ \equiv \\ \equiv \\ \equiv \end{array} \\
\left(\begin{array}{c} \psi_1(\text{N}, \text{self}) \\ \equiv \\ \equiv \end{array} \right) \\
\left(\psi_1(\text{N}, \text{self}) \right) \\
\leftarrow \psi_1(\text{N}, \text{self})
\end{array}
\end{array},$$

$$\begin{pmatrix}
\begin{array}{c}
\text{parelf}(\psi_2^{\dots}(\text{N}, \text{self})) \\
\text{singelf}(\psi_2(\text{N}, \text{self})) \\
\text{subtle energy of pa}||| \\
\left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ \psi_2(\text{N}, \text{self}) \end{array} \right)
\end{array} \\
- \\
\begin{array}{c}
\text{subtle energy of } |||^{-1} \\
\begin{array}{c} \psi_2(\text{N}, \text{self}) \\ \equiv \\ \equiv \\ \equiv \end{array} \\
\left(\begin{array}{c} \psi_2(\text{N}, \text{self}) \\ \equiv \\ \equiv \end{array} \right) \\
\psi_2(\text{N}, \text{self})
\end{array}
\end{pmatrix}
\begin{array}{c}
\backslash \\
\text{subtle energy of } ||| \\
\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ \psi_2(\text{N}, \text{self}) \end{array} \\
\begin{array}{c} \psi_2(\text{N}, \text{self}) \\ \equiv \\ \equiv \\ \equiv \end{array} \\
\left(\begin{array}{c} \psi_2(\text{N}, \text{self}) \\ \equiv \\ \equiv \end{array} \right) \\
\left(\psi_2(\text{N}, \text{self}) \right) \\
\leftarrow \psi_2(\text{N}, \text{self})
\end{array}
\end{array},$$

$$\left(\begin{array}{c} \dots \\ \text{parelf}(\psi_3(N, \text{self})) \\ \text{singelf}(\psi_3(N, \text{self})) \\ \text{subtle energy of pa}||| \\ \left(\begin{array}{c} \overline{\overline{\overline{\overline{\overline{\psi_3(N, \text{self})}}}}} \end{array} \right) \\ \\ - \qquad \qquad \qquad \backslash \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{cc} \overline{\overline{\overline{\overline{\overline{\psi_3(N, \text{self})}}}}} & \overline{\overline{\overline{\overline{\overline{\psi_3(N, \text{self})}}}}} \\ \left(\overline{\overline{\overline{\overline{\overline{\psi_3(N, \text{self})}}}}} \right) & \left(\overline{\overline{\overline{\overline{\overline{\psi_3(N, \text{self})}}}}} \right) \\ \overline{\overline{\overline{\overline{\overline{\psi_3(N, \text{self})}}}}} & \leftarrow \psi_3(N, \text{self}) \end{array} \end{array} \right) \text{ etc. self-formation of self-type(}$$

||| – type) forms forms itself etc.

Remark 1.7. self-type(||| – type) by any form, which can be taken as any Q, self-type(||| – type) kind will depend on the choice of interpretation of the connections between elements of Q, for example, in the case $Q = \begin{pmatrix} 1 & 3 \\ 1 & 2 \end{pmatrix}$, self-type kind can be imagined as a form for a hierarchical self, which manifests itself at the upper level as $\text{self}^{3/2}$, and at the lower as self, for example, $(C_Q, 1)$ is ||| of elements from C by Q, $(m_n, 1)$ is ||| of m elements in n places with n- self inclusion at $m > n$, or it is self of n elements in m places with m-||| inclusion at $m < n$, or $|||_{m_n}$ or self_{n_m} directly without combination.

Remark 1.8. The singularity “Nobody's element” is one of the poles of singularities field, the action pole. May consider $\text{paself}(\nabla) = \overline{\nabla} ||| \nabla$, $\text{paself}(\infty)$, $\frac{\nabla_x \text{Sprt} \nabla_x}{\nabla_x}, \frac{\nabla_x \text{Sprt} \nabla_x}{\nabla_x}$ etc, paself sets actions field.

Remark. self-type control of any C is double of C.

Remark 1.9. May consider some ||| - type: 1) $a|||_e b$ from $a \in b$, 2) $a|||_{\rightarrow} b$ from $a \rightarrow b$, 3) $a|||_{<} b$ from $a < b$, 4) $a|||_{>} b$ from $a > b$, 5) $a|||_{\leq} b$ from $a \leq b$, 6) $a|||_{\geq} b$ from $a \geq b$, 7) $a|||_{g(\cdot)} b$ from $g(a, b)$ etc.

Remark 1.10. $\text{Sprt}_x^{a,b}$ is a|||b by containment place – a point x.

Physics of Singular Transformations

Any *Singular Transformations* in *Physics* are possible, since we live not only in the strip of inanimate objects and energies but also in the strip of living objects and living energies, in which much is possible that is not possible only in the strip of inanimate objects and energies.

May use *Singular Transformations* in sociology, chemistry, engineering etc.

Dynamic operator is the straight parallel operator. Dynamic programing for uncertainties by dynamic program operators. To make it convenient to work in direct-parallel mode or direct-accumulative mode, dynamic operators and dynamic program operators and self-type operators are used similar to how the nervous system works through neurons, the central nervous system when activated. This is a certain parallel approach. Semi-certain parallel approach works by fuzzy dynamic operators and fuzzy dynamic program operators and fuzzy self-type operators. Partially certain parallel approach works by neural network SmnSprt .

Uncertaintical parallel approach works by neural network SmnSprt . To get the result tw in B: $\text{Sprt}_B^{\{activation \text{ SmnSprt for } tw, \text{ receiving } tw\}}$, i.e. by (request tw)

||| (receiving tw). The neural network-transformer accepts any type of uncertainty-neural network (in general, any type depending on the neural network "giving birth" to other neural networks). Can chaos spontaneously "give birth" to self-type structures? Yes, if at their "conception" and "birth" it will have a straight-parallel or straight- accumulative format, turning into a self-format. Thus, one can consider the topology of chaos.

Beginnings of uncertain dynamic topology

In dynamic mathematics more expedient to consider hierarchical topology, for example, 2-level: at the lower and upper levels with limit transitions in a continuous version and discrete transitions between levels.

You can use the hierarchical quasi-metric $\rho_h(x, y)$, where at the lower usual dynamic level the usual metric $\rho(x, y)$ is used, and at the upper singular dynamic level the quasi-metric is used. For example, for usual dynamic level: for $\Delta y = \frac{\|Sprt_B^{A+\Delta A} - Sprt_B^A\|}{\|\Delta A\|}$ if $A \cap B$ and $\Delta A \cap B$ are empty then $\Delta y \rightarrow 0$ for $\|\Delta A\| \rightarrow 0$.

At limit transitions between levels are used jump-like limit transitions. A more special one can be developed *uncertain dynamic singular topology*.

Beginnings of uncertain dynamic arithmetic

May use any dynamic uncertain *arithmetic* operation R : xRy , for example

1. $R = *|\mu_1, -|\mu_2, /|\mu_3, +|\mu_4$ by $fSAprt \left(\begin{matrix} \{a\} \\ *|\mu_1, -|\mu_2, /|\mu_3, +|\mu_4 \end{matrix} \right)$ with measures w of fuzziness $\mu_i, i = 1, \dots, 4$.
2. Simultaneous different fuzzy arithmetic operations $Q = (+|\mu_{\tilde{Q}}(+), \backslash|\mu_{\tilde{Q}}(\backslash), \dots, *|\mu_{\tilde{Q}}(*))$ with a fuzzy set of elements $\tilde{x} = (x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))$ is carried out using $fSAprt \begin{matrix} \tilde{x} \\ Q \end{matrix}$.

Beginnings of Vector algebra self

For type self-vectors $\uparrow \begin{pmatrix} a \\ b \end{pmatrix} \downarrow$ you can use usual scalar product, for example

$$\uparrow \begin{pmatrix} a \\ b \end{pmatrix} \downarrow * \uparrow \begin{pmatrix} c \\ d \end{pmatrix} \downarrow = a * c + b * d, \quad \uparrow \begin{pmatrix} a \\ b \end{pmatrix} \downarrow * \downarrow \begin{pmatrix} c \\ d \end{pmatrix} \uparrow = a * c + b * d,$$

usual vector product:

$$\uparrow \begin{pmatrix} a \\ b \end{pmatrix} \downarrow * \uparrow \begin{pmatrix} c \\ d \end{pmatrix} \downarrow \text{ (v.1),}$$

$$\uparrow \begin{pmatrix} a \\ b \end{pmatrix} \downarrow * \downarrow \begin{pmatrix} c \\ d \end{pmatrix} \uparrow \text{ (v.2).}$$

Only result of vector product will have a self-frame of the form $\uparrow \left(\begin{pmatrix} a \\ b \end{pmatrix} \right) \downarrow$ for (v.1) and form $\downarrow \left(\begin{pmatrix} a \\ b \end{pmatrix} \right) \uparrow$ for (v.2).

1.5 Beginnings of Mathematical uncertainties Calculations

One of our common approaches: we throw everything into the space of "verification" ("target") and take what is closer to the "apple"(desired goal).

Minimax dynamic methods, ordering:

A

By SCprt g contains a number set A to potential numeric axis B through g , then we

B

take the rightmost actual number as max, and the leftmost actual number as min.

1.6 Beginnings of uncertain dynamic geometry

Definition 1.1. By dynamic point q we mean the entire bundle of lines A

$\overleftarrow{q} \quad A$

intersecting at it as an interpretation of dynamic operators of type $g_2 \text{SCprt } g_1$.

$A \quad q$

Here lines A are accommodated with the accommodation type g_1 to q and then are displaced from q with the displacement type g_2 .

Definition 1.2. All the remaining dynamic geometric objects consist of this type of points.

You can use the usual metric $\rho(x, y)$, where x is the intersection point of one bundle of lines, and y is the intersection point of the other.

Definition 1.3. By fuzzy dynamic point q we mean the entire fuzzy bundle of fuzzy lines A intersecting at it as an interpretation of dynamic operators of type

$\overleftarrow{q} \quad A$

$g_2 \text{fSCprt } g_1$.

$A \quad q$

Definition 1.4. All the remaining dynamic fuzzy geometric objects consist of this type of dynamic points.

Remark 1.11. As dynamic point may take any dynamic C . At all as point may take any C and get new Geometry from these points.

Remark 1.12. May consider self-type ($|||$ – type), paself-type ($pa|||$ – type), singelf-type ($parelf$ – type) points, metrics.

Beginnings of Singular Dynamic Geometry

Definition 1.5. By singular dynamic point q we mean as an interpretation of

$\overleftarrow{q} \quad q$

dynamic operators of type $g_1 \text{SCprt } g_1$. Here point q is accommodated with the

$q \quad q$

accommodation type g_1 itself and then is displaced from q with the displacement type g_1 .

Definition 1.6. All the remaining singular dynamic geometric objects consist of this type of points.

You can use the hierarchical quasi-metric $ph(x, y)$, where at the lower usual dynamic geometric level the usual metric $p(x, y)$ is used, and at the upper singular dynamic geometric level the quasi-metric is used.

Definition 1.7. By singular fuzzy dynamic point q we mean as an interpretation of

fuzzy dynamic operators of type $\overleftarrow{g_1 fSCprt g_1}$. Here point q is accommodated

with the accommodation type g_1 itself and then is displaced from q with the displacement type g_1 .

Definition 1.8. All the remaining singular fuzzy dynamic geometric objects consist of this type of points.

You can use the hierarchical fuzzy quasi-metric $ph(x, y)$, where at the lower usual dynamic geometric level the usual fuzzy metric $p(x, y)$ is used, and at the upper singular dynamic geometric level the quasi-metric is used.

It is possible to extend *Dynamic Geometry*, *Singular Dynamic Geometry* from Euclidean to non-Euclidean: *Lobachevsky Geometry*, *Riemann Geometry*, *Minkowski Geometry*, but this is already in the next publications.

May consider in Euclidean: The point $A|_{\mu_1}$, a line equation $y|_{\mu_2} = (k|_{\mu_3}) + b|_{\mu_4}$ by measures of fuzziness μ_i , $i = 1, \dots, 4$. May consider hierarchical uncertain dynamic geometry, for example, with 2-hierarchy in the kind of 2 geometric spaces. In this case we will be able to consider hierarchical self-geometric objects, |||-geometric objects etc.

Geometry of Singular Transformations

Here we consider the transformation of any processes, actions, objects, in particular, sets through structures in geometric interpretation. Circles with radii equal to zero can be taken as self-geometric objects. Then spheres with radii equal to zero will be self²-geometric objects, and tori with radii equal to zero will be self-geometric objects. May consider lines from self-points, surfaces from self-points, planes from self-points or simply self-geometric objects as a whole, self-geometric objects, parts of which are isolated in different places in space and self-connected

to each other (we will be called their “connected”). May try to use classification from knot theory symbolically, considering knots as geometric interpretation of

dynamic operators of the type $\text{SCprt}_x^A g$. Here x is self-type point, which

corresponds to knot symbolically, generated by the corresponding type g of containment A . self-geometric objects correspond algebraic topology objects symbolically.

geometric equations for vectors (forms for self-type, |||-type), curved lines(circles, *Singular Transformations forms*)

Example:

(1, Geometry) is self-point etc.

Geometric Transformations forms

Examples:

$(\diagup, \circlearrowleft), (\circ, \circ), (\sim, \mathbb{Z})$ etc.

Beginnings of uncertain dynamic biology

In the absolute sense, man represents uncertainty because he represents by self-type structure.

Remark 1.13. For example, an insect can be used as a "match" to connect to some "living" energy fibers of our world.

Remark 1.14. DNA corresponds to the dynamic operator $\{\} \text{Sprt}_a^a$ in the state of isolation from energy and dynamic operator $\{^E_E\} \text{Sprt}_a^a$ at energy E .

Any operator, functionality, connection corresponds to its type of energy and it is possible to construct the energy of these types in this way. There are plenty of examples when this is done unconsciously. The only question is the level of energy. Let us introduce some notations: suncertainty = self-uncertainty, souncertainty = (self- oself)-uncertainty, ∞ -uncertainties.

1.7 Dynamic interpretation of uncertainties such as random events

May consider self- values of probability, self-events, self- probability with the argument (random value) to herself, self-appearance. $P = \frac{m}{n}$ corresponds to the form $(m, (n, 1))$. May consider the example of self- probability $\uparrow_{-1} \frac{1}{n} | p \downarrow$.

Remark 1.15. Processes that are handled the probability theory are singular, since the slightest changes in them lead to leaps in results.

We consider functional $g(x): X \rightarrow g, x \in X, g$ —numerical value of functional $g(x)$. It is specific capacity for X . $Sprt_{\{g(x)\}}^{\{g(x)\}}$ [16] made from her the self-capacity in itself as an element $f_1 S\{g(x)\}, \{g(x)\}$ —the set of any functionals for X . In particular, probability $p(X)$ –is such functional, X —an event. Here $Sprt_{p(X)}^{p(X)}$ is $f_1 Sp(X)$, denote it through $pS(X)$. The usual event is dynamical capacity.

Definition 1.9. Sprt-probability of events A, B is $p(Sprt_B^A)$, denote Spp_B^A . In particular,

$$Spp_B^A \text{ for joint } A, B: Spp_B^A = p(Sprt_B^A) = p\left(\left\{A \cup B - A \cap B\right\}^D\right) = p(A) + p(B)$$

– $p(AB) + pS(D)$, D — the self-capacity in itself as an element from $A \cap B$, $pS(D)$ — probability self of D of next level—self level. The probability for stochastic value X is capacity. We represent its distribution in the kind of Sprt-element:

$$Sprt(t)_X^{\{(x_1, p_1), (x_2, p_2), \dots, (x_n, p_n)\}} (*_3)$$

Here interest represent partial distribution self from $(*_3)$ by form (1.1) - (1.4) with value self of stochastic value X for some subset $\{x_{1_1}, x_{2_1}, \dots, x_{j_1}\} \in \{x_1, x_2, \dots, x_n\}$ with probabilities self $\{pS_1, pS_2, \dots, pS_j\}$.

We consider: $S^2 t_{\{g(x)\}}^{\{g(x)\}}$ [21] made from her the self-capacity in itself as an element $S^2_1 f \{g(x)\} [1], \{g(x)\}$ —all functional for all X . In particular, probability $p(X)$ –is such functional, X —an event. Here $S^2 t_{p(X)}^{p(X)}$ — $S^2_1 f p(X)$, denote it through $pS^2(X)$. Usual event is dynamical capacity.

Definition 1.10. S^2t -probability of events A, B is $p(S^2t_B^A)$, denote $S^2p_B^A$. In particular,

$S^2p_B^A$ for joint A, B: $S^2p_B^A = p(S^2t_B^A) = p(\{A \dot{\cup} B - A \dot{\cup} B, D\}) = p(A) + p(B) - p(AB) + pS^2(D)$,
 D -- the s^2 elf-consistency in itself as an element from $A \dot{\cup} B$, $pS^2(D)$ — probability s^2 elf of D of next level — s^2 elf level. The probability for stochastic value X is holding capacity. We represent their distribution in the kind of S^2t -element:

$$S^2t_X(t)^{\{(x_1, p_1), (x_2, p_2), \dots, (x_n, p_n)\}} (*_4)$$

Here interest represent partial distribution self from $(*_4)$ by form (1.1) - (1.4) with value self of stochastic value X for some subset $\{x_{j_1}, x_{j_2}, \dots, x_{j_l}\} \in \{x_1, x_2, \dots, x_n\}$ with probabilities self $\{pS^2_{j_1}, pS^2_{j_2}, \dots, pS^2_{j_l}\}$.

Definition 1.11. tS^2 -probability of events A, B is $p({}_A^B S^2t)$, denote ${}_A^B S^2p$ [21].

In particular, ${}_A^B S^2p$ for joint events A, B: ${}_A^B S^2p = p({}_A^B S^2t) =$
 $(p^{os^2}(A \cap B - Co(A \cap B)) + p^{-s^2}({}_A - A \cap B^{\{\}} S^2t)), Co(A \cap B)$ – content of $A \cap B$.
 $p(B) - p(A)$

Definition 1.12. S^2e -probability of events ${}_D^B S^2t_B^A$ is $p({}_D^B S^2t_B^A)$, denote ${}_D^B S^2p_B^A$ [21].

In particular, ${}_D^B S^2p_B^A$ for joint events $S^2t_B^A, {}_D^B S^2t, A, B, D, {}_D^B S^2t_B^A$:
 $p({}_D^B S^2t_B^A) = p({}_D^B S^2t) + p(S^2t_B^A) - p(S^2t_B^A \cap {}_D^B S^2t) =$
 $(p^{os^2}(B \cap D) + p^{s^2}(A \cap B) + p^{-s^2}({}_B - B \cap D^{\{\}} S^2t)) - p(S^2t_B^A \cap {}_D^B S^2t)$, for dependent
 $p(A) - p(A \cap B) + p(D)$
 events: $p({}_D^B S^2t \cap S^2t_B^A) = p({}_D^B S^2t) * p(S^2t_B^A / {}_D^B S^2t) = p(S^2t_B^A) * p({}_D^B S^2t / S^1t_B^A)$.
 $p^{s^2}(x)$ - the value of self-P for self- event x , $p^{os^2}(x)$ - the value of oself-P for oself- event x .

Definition 1.13. Set-probability of events ${}_D^B St_B^A$ is $p({}_D^B St_B^A)$, denote ${}_D^B Sp_B^A$ [21].

In particular, ${}_D^B Sp_B^A$ for joint events St_B^A , ${}_D^B St$, A, B, D, ${}_D^B St_B^A$:

$$p({}_D^B St_B^A) = p({}_D^B St) + p(St_B^A) - p({}_D^B St \cap St_B^A) =$$

$$(p^{os} (B \cap D - Co(B \cap D)) + p^s (A \cap B) + p^{-s} ({}_{B-B \cap D}^{\{\}} St)) - p({}_D^B St \cap St_B^A), \text{ for } p(A) - p(A \cap B) + p(D)$$

dependent events: $p({}_D^B St \cap St_B^A) = p({}_D^B St) * p(St_B^A / {}_D^B St) = p(St_B^A) * p({}_D^B St / St_B^A)$.

$p^s(x)$ - the value of self-P for self- event x , $Co(x)$ – content of x , $p^{os}(x)$ - the value of oself-P for oself- event x .

Definition 1.14. Set-probability of events ${}_D^C St_B^A$ [21] is $p({}_D^C St_B^A)$, denote ${}_D^C Sp_B^A$.

Then for joint events St_B^A , ${}_A^B St$, A, B, C, D: $p({}_D^C St_B^A) = p({}_D^C St) + p(St_B^A) - p({}_D^C St \cap$

$$St_B^A) = (p^{oss} (C \cap D) + p^{ss} (A \cap B) + p^{-ss} ({}_{C-C \cap D}^{\{\}} St)) - p({}_D^C St \cap St_B^A), \text{ for } p(A) + p(B) - p(A \cap B) + p(D) - p(C)$$

dependent events: $p({}_D^C St \cap St_B^A) = p({}_D^C St) * p(St_B^A / {}_D^C St) = p(St_B^A) * p({}_D^C St / St_B^A)$.

$p^{ss}(x)$ - the value of self-P for self- event x , $p^{oss}(x)$ - the value of oself-P for oself- event x .

$p(St_B^A) = p_{SSSt_B^A} * p(St_B^A / E_{St_B^A})$, $p_{SSSt_B^A}$ - probability of random placement A into B,

$E_{St_B^A}$ -the event of random placement A into B, $p({}_D^C St) = p_{{}_D^C St} * p({}_D^C St / E_{{}_D^C St})$, $p_{{}_D^C St}$

- probability of accidental displacement D from C, $E_{{}_D^C St}$ - the event of accidental displacement D from C.

Definition 1.15. S¹et-probability of events ${}_D^C S^1 t_B^A$ [21] is $p({}_D^C S^1 t_B^A)$, denote ${}_D^C S^1 p_B^A$.

In particular, ${}_D^C S^1 p_B^A$ for joint events $S^1 t_B^A$, ${}_D^C S^1 t$, A, B, C, D, ${}_D^C S^1 t_B^A$:

$$p({}_D^C S^1 t_B^A) = p({}_D^C S^1 t) + p(S^1 t_B^A) - p(S^1 t_B^A \cap {}_D^C S^1 t) =$$

$$(p^{os^1} (C \cap D) + p^{s^1} (A \cap B) + p^{-s^1} ({}_{C-C \cap D}^{\{\}} S^1 t)) - p(S^1 t_B^A \cap {}_D^C S^1 t), \text{ for dependent } p(A) + p(B) - p(A \cap B) + p(D) - p(C)$$

events: $p(\frac{C}{D}S^1t \cap S^1t_B^A) = p(\frac{C}{D}S^1t) * p(S^1t_B^A / \frac{C}{D}S^1t) = p(S^1t_B^A) * p(\frac{C}{D}S^1t / S^1t_B^A)$.

$p^{s^1}(x)$ - the value of self-P for self- event x , $p^{os^1}(x)$ - the value of oself-P for oself- event x .

Definition 1.16. Set-probability of events $\frac{C}{D}S_1t_B^A$ [21] is $p(\frac{C}{D}S_1t_B^A)$, denote

$$\frac{C}{D}S_1p_B^A$$

In particular, $\frac{C}{D}S_1p_B^A$ for joint events $S_1t_B^A$, $\frac{C}{D}S_1t$, A , B , C , D , $\frac{C}{D}S_1t_B^A$:

$$p(\frac{C}{D}S_1t_B^A) = p(\frac{C}{D}S_1t) + p(S_1t_B^A) - p(\frac{C}{D}S_1t \cap S_1t_B^A) =$$

$$(p^{os^1}(C \cap D) + p^{s^1}(A \cap B) + p^{-s^1}\left(\frac{\{\}}{C-C \cap D}S_1t\right)) - p(\frac{C}{D}S_1t \cap S_1t_B^A), \text{ for dependent } p(A) + p(B) - p(A \cap B) + p(D) - p(C)$$

events: $p(\frac{C}{D}S_1t \cap S_1t_B^A) = p(\frac{C}{D}S_1t) * p(S_1t_B^A / \frac{C}{D}S_1t) = p(S_1t_B^A) * p(\frac{C}{D}S_1t / S_1t_B^A)$.

$p^{s^1}(x)$ - the value of self-P for self- event x , $p^{os^1}(x)$ - the value of oself-P for oself- event x .

Remark 1.16. A statement can be interpreted as an event, and its truth value as a probability.

Definition 1.17. S²et-probability of events $\frac{C}{D}S^2t_B^A$ is $p(\frac{C}{D}S^2t_B^A)$, denote $\frac{C}{D}S^2p_B^A$.

In particular, $\frac{C}{D}S^2p_B^A$ for joint events $S^2t_B^A$, $\frac{C}{D}S^2t$, A , B , C , D , $\frac{C}{D}S^2t_B^A$:

$$p(\frac{C}{D}S^2t_B^A) = p(\frac{C}{D}S^2t) + p(S^2t_B^A) - p(S^2t_B^A \cap \frac{C}{D}S^2t) =$$

$$(p^{os^2}(C \cap D) + p^{s^2}(A \cap B) + p^{-s^2}\left(\frac{\{\}}{C-C \cap D}S^2t\right)) - p(S^2t_B^A \cap \frac{C}{D}S^2t), \text{ for dependent } p(A) + p(B) - p(A \cap B) + p(D) - p(C)$$

events: $p(\frac{C}{D}S^2t \cap S^2t_B^A) = p(\frac{C}{D}S^2t) * p(S^2t_B^A / \frac{C}{D}S^2t) = p(S^2t_B^A) * p(\frac{C}{D}S^2t / S^2t_B^A)$.

$p^{s^2}(x)$ - the value of self-P for self- event x , $p^{os^2}(x)$ - the value of oself-P for oself- event x .

1.8 Self-type structures of probability

self-type Dprt-structures of probability

We consider the following self-type Dprt-structures of probability of the first type:

$$p(\overset{\text{action } Q}{(action \ Q)^{-1}} \underset{\text{action } Q}{\text{Dprt } action \ Q})(1.5),$$

denote $p(D_1 f Q)$.

$$p(\overset{\text{action } Q}{(action \ Q)^{-1}} \underset{A}{\text{Dprt } action \ Q}) \underset{\text{action } Q}{(1.6)},$$

denote $p(D_2 f A; Q)$.

$$p(\overset{B}{(action \ Q)^{-1}} \underset{A}{\text{Dprt } action \ Q}) \underset{B}{(1.7)},$$

denote $p(D_3 f A; Q; B)$.

$$p(\overset{A}{(action \ Q)^{-1}} \underset{A}{\text{Dprt } action \ Q}) \underset{A}{(1.8)},$$

denote $p(D_4 f A; Q)$.

$$p(\overset{a}{(action \ Q)^{-1}} \underset{str A}{\text{Dprt } action \ Q}) \underset{a}{(1.8.1)},$$

denote $p(D_5 f A; Q; a)$, $a \subset A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p(\overset{Str A}{(action \ Q)^{-1}} \underset{a}{\text{Dprt } action \ Q}) \underset{Str A}{(1.8.2)},$$

denote $p(D_6 f a; Q; A)$, $a \subset A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p(\overset{B}{(action \ Q)^{-1}} \underset{B}{\text{Dprt } action \ Q}) \underset{B}{(1.8.3)},$$

and any other possible options of self for (A.1.1) etc.

We consider the following self-type Dprt-structures of probability of the second type:

$$\begin{array}{c} A \\ p(\text{Dprt } \textit{action} \ Q) \ (1.9), \\ A \end{array}$$

$$\begin{array}{c} \textit{str} A \\ p(\text{Dprt } \textit{action} \ Q) \ (1.9.1), \\ a \end{array}$$

denote $p(D_7 f A; Q; a)$, $a \subset A$ and structure of A acts Q to a ,

$$\begin{array}{c} a \\ p(\text{Dprt } \textit{action} \ Q) \ (1.9.2), \\ \textit{str} A \end{array}$$

denote $p(D_8 f a; Q; A)$, $a \subset A$ and acts Q to structure of A ,

$$\begin{array}{c} \textit{action} \ Q \\ p(\text{Dprt } \textit{action} \ Q) \ (1.9.3), \\ \textit{action} \ Q \end{array}$$

$$\begin{array}{c} A \\ p(\text{Dprt } \textit{action} \ Q) \ (1.9.4), \\ \textit{action} \ Q \end{array}$$

and any other possible options of self for (A.1.8) [18] etc.

Also, for self-type Rprt-structures of probability of the second type.

We consider the following self-type tprD-structures of probability:

$$\begin{array}{c} D \\ p((\textit{action} \ Q)^{-1} \text{Dprt}) \ (1.9.5) \\ D \end{array}$$

$$\begin{array}{c} \textit{str} D \\ p((\textit{action} \ Q)^{-1} \text{Dprt}) \ (1.9.1), \\ d \end{array}$$

denote $p(D_9 f d; Q; D)$, $d \subset D$ and d acts Q out from structure of D ,

$$\begin{matrix} d \\ p((action\ Q)^{-1}Dprt) \\ strD \end{matrix} \quad (1.9.2),$$

denote $p(D_{10}fD;Q;d)$, $d \subset D$ and structure of D acts Q out from d ,

$$\begin{matrix} action\ Q \\ p((action\ Q)^{-1}Dprt) \\ D \end{matrix} \quad (1.10)$$

$$\begin{matrix} action\ Q \\ p((action\ Q)^{-1}Dprt) \\ action\ Q \end{matrix} \quad (1.11)$$

and any other possible options of self for (A.1.10) [18] etc.

Also, for self-type tprR-structures of probability.

self-type Rprt-structures of probability

We consider the following self-type Rprt-structures of probability of the first type:

$$\begin{matrix} action\ Q & action\ Q \\ p(action\ P\ Rprt\ action\ Q) \\ action\ Q & action\ Q \end{matrix} \quad (1.13),$$

denote $p(r_1fQ)$.

$$\begin{matrix} action\ Q & A \\ p(action\ P\ Rprt\ action\ Q) \\ A & action\ Q \end{matrix} \quad (1.14),$$

denote $p(r_2fA;Q)$.

$$\begin{matrix} B & A \\ p(action\ P\ Rprt\ action\ Q) \\ A & B \end{matrix} \quad (1.15),$$

denote $p(r_3fA;Q;B)$.

$$p(\overset{A}{\underset{A}{\text{action}}} \text{PRprt} \overset{A}{\underset{A}{\text{action}}} Q) \text{ (1.16),}$$

denote $p(r_4 f A; Q)$.

$$p(\overset{a}{\underset{str A}{\text{action}}} \text{PRprt} \overset{str A}{\underset{a}{\text{action}}} Q) \text{ (1.16.1),}$$

denote $p(r_5 f A; Q; a)$, $a \subset A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p(\overset{Str A}{\underset{a}{\text{action}}} P \text{Rprt} \overset{a}{\underset{Str A}{\text{action}}} Q) \text{ (1.16.2),}$$

denote $p(r_6 f a; Q; A)$, $a \subset A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p(\overset{B}{\underset{B}{\text{action}}} P \text{Rprt} \overset{A}{\underset{B}{\text{action}}} Q) \text{ (1.17),}$$

and any other possible options of self for (A.1.1) [18] etc.

self-type fDprt-structures of probability

We consider the following self-type fDprt-structures of probability of the first type:

$$p(\overset{\text{action } Q}{\underset{\text{action } Q}{(\text{action } Q)^{-1}}} \text{fDprt} \overset{\text{action } Q}{\underset{\text{action } Q}{\text{action } Q}}) \text{ (1.18),}$$

denote $p(fD_1 f Q)$.

$$p(\overset{\text{action } Q}{\underset{A}{(\text{action } Q)^{-1}}} \text{fDprt} \overset{A}{\underset{\text{action } Q}{\text{action } Q}}) \text{ (1.19),}$$

denote $p(fD_2 f A; Q)$.

$$p\left(\begin{smallmatrix} B \\ \text{action } Q \end{smallmatrix}\right)^{-1} fDprt \begin{smallmatrix} A \\ \text{action } Q \end{smallmatrix} \begin{smallmatrix} B \\ A \end{smallmatrix} \quad (1.20),$$

denote $p(fD_3 f A; Q; B)$.

$$p\left(\begin{smallmatrix} A \\ \text{action } Q \end{smallmatrix}\right)^{-1} fDprt \begin{smallmatrix} A \\ \text{action } Q \end{smallmatrix} \begin{smallmatrix} A \\ A \end{smallmatrix} \quad (1.21),$$

denote $p(fD_4 f A; Q)$.

$$p\left(\begin{smallmatrix} a \\ \text{action } Q \end{smallmatrix}\right)^{-1} fDprt \begin{smallmatrix} str A \\ \text{action } Q \end{smallmatrix} \begin{smallmatrix} str A \\ a \end{smallmatrix} \quad (1.21.1),$$

denote $p(fD_5 f A; Q; a)$, $a \subset A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p\left(\begin{smallmatrix} Str A \\ \text{action } Q \end{smallmatrix}\right)^{-1} fDprt \begin{smallmatrix} a \\ \text{action } Q \end{smallmatrix} \begin{smallmatrix} a \\ Str A \end{smallmatrix} \quad (1.21.2),$$

denote $p(fD_6 f a; Q; A)$, $a \subset A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p\left(\begin{smallmatrix} B \\ \text{action } Q \end{smallmatrix}\right)^{-1} fDprt \begin{smallmatrix} A \\ \text{action } Q \end{smallmatrix} \begin{smallmatrix} B \\ B \end{smallmatrix} \quad (1.22),$$

and any other possible options of self for (A.1.1) [18] etc.

We consider the following self-type $fDprt$ -structures of probability of the second type:

$$p\left(\begin{smallmatrix} A \\ \text{action } Q \end{smallmatrix}\right) \quad (1.23),$$

$$p\left(\begin{smallmatrix} str A \\ \text{action } Q \end{smallmatrix}\right) \quad (1.24.1),$$

denote $p(fD_7fA;Q;a)$, $a \in A$ and structure of A acts Q to a ,

$$\begin{matrix} a \\ p(fD_{prt} \text{ action } Q) \\ strA \end{matrix} (1.24.2),$$

denote $p(fD_8fa;Q;A)$, $a \in A$ and acts Q to structure of A ,

$$\begin{matrix} \text{action } Q \\ p(fD_{prt} \text{ action } Q) \\ \text{action } Q \end{matrix} (1.25),$$

$$\begin{matrix} A \\ p(fD_{prt} \text{ action } Q) \\ \text{action } Q \end{matrix} (1.26),$$

and any other possible options of self for (A.1.8) [18] etc.

Also, for self-type $fRprt$ -structures of probability of the second type.

We consider the following self-type $tprfD$ -structures of probability:

$$\begin{matrix} D \\ p((\text{action } Q)^{-1}fD_{prt}) \\ D \end{matrix} (1.27)$$

$$\begin{matrix} strD \\ p((\text{action } Q)^{-1}fD_{prt}) \\ d \end{matrix} (1.27.1),$$

denote $p(fD_9fd;Q;D)$, $d \in D$ and d acts Q out from structure of D ,

$$\begin{matrix} d \\ p((\text{action } Q)^{-1}fD_{prt}) \\ strD \end{matrix} (1.27.2),$$

denote $p(fD_{10}fD;Q;d)$, $d \in D$ and structure of D acts Q out from d ,

$$\begin{matrix} \text{action } Q \\ p((\text{action } Q)^{-1}fD_{prt}) \\ D \end{matrix} (1.28)$$

$$\begin{array}{c} \text{action } Q \\ p((\text{action } Q)^{-1} f \text{Dprt}) \text{ (1.29)} \\ \text{action } Q \end{array}$$

and any other possible options of self for (A.1.10) [18] etc.

Also, for self-type tprfR-structures of probability.

We consider the following self-type dynamic Dprt-structures of probability of the first type:

$$\begin{array}{c} \text{action } Q(t) \quad \text{action } Q(t) \\ p((\text{action } Q(t))^{-1} \text{Dprt}(t) \text{ action } Q(t)) \text{ (1.30),} \\ \text{action } Q(t) \quad \text{action } Q(t) \end{array}$$

$$\begin{array}{c} \text{action } Q(t) \quad A(t) \\ p((\text{action } Q(t))^{-1} \text{Dprt}(t) \text{ action } Q(t)) \text{ (1.31),} \\ A(t) \quad \text{action } Q(t) \end{array}$$

$$\begin{array}{c} B(t) \quad A(t) \\ p((\text{action } Q(t))^{-1} \text{Drt}(t) \text{ action } Q(t)) \text{ (1.32),} \\ A(t) \quad B(t) \end{array}$$

$$\begin{array}{c} A(t) \quad A(t) \\ p((\text{action } Q(t))^{-1} \text{Drt}(t) \text{ action } Q(t)) \text{ (1.33),} \\ A(t) \quad A(t) \end{array}$$

$$\begin{array}{c} a(t) \quad \text{str}A(t) \\ p((\text{action } Q(t))^{-1} \text{Drt}(t) \text{ action } Q(t)) \text{ (1.33.1),} \\ \text{str}A(t) \quad a(t) \end{array}$$

denote $p(D_{11}(t) f A(t); Q(t); a(t))$, $a(t) \subset A(t)$ and structure of $A(t)$ acts $Q(t)$ to $a(t)$ and acts $Q(t)$ out from $a(t)$ simultaneously,

$$\begin{array}{c} \text{str}A(t) \quad a(t) \\ p((\text{action } Q(t))^{-1} \text{Drt}(t) \text{ action } Q(t)) \text{ (1.33.2),} \\ a(t) \quad \text{str}A(t) \end{array}$$

denote $p(D_{12}(t)fa(t);Q(t);A(t), a(t)) \subset A(t)$ and acts $Q(t)$ to structure of $A(t)$ and acts $Q(t)$ out from structure of $A(t)$ simultaneously,

$$\begin{array}{c} B(t) \quad A(t) \\ p((action\ Q(t))^{-1}Drt(t)\ action\ Q(t))\ (1.34), \\ B(t) \quad B(t) \end{array}$$

and any other possible options of self for (A.1.2.1) [18] etc.

We consider the following self-type dynamic Dprt-structures of probability of the second t type:

$$\begin{array}{c} A(t) \\ p(Dprt(t)\ action\ Q(t))\ (1.35), \\ A(t) \end{array}$$

$$\begin{array}{c} strA(t) \\ p(Dprt(t)\ action\ Q(t))\ (1.35.1), \\ a(t) \end{array}$$

denote $p(D_{13}(t)fA(t);Q(t);a(t)), a(t) \subset A(t)$ and structure of $A(t)$ acts $Q(t)$ to $a(t)$,

$$\begin{array}{c} a(t) \\ p(Dprt(t)\ action\ Q(t))\ (1.35.2), \\ strA(t) \end{array}$$

denote $p(D_{14}(t)fa(t);Q(t);A(t)), a(t) \subset A(t)$ and acts $Q(t)$ to structure of $A(t)$,

$$\begin{array}{c} action\ Q(t) \\ p(Dprt(t)\ action\ Q(t))\ (1.36), \\ action\ Q(t) \end{array}$$

$$\begin{array}{c} A(t) \\ p(Dprt(t)\ action\ Q(t))\ (1.37), \\ action\ Q(t) \end{array}$$

and any other possible options of self for (A.1.2.8) [18] etc.

We consider the following self-type dynamic tprD-structures: of probability

$$\begin{matrix} D(t) \\ p((action\ Q(t))^{-1}Dprt(t))\ (1.38) \\ D(t) \end{matrix}$$

$$\begin{matrix} strD(t) \\ p((action\ Q(t))^{-1}Dprt(t))\ (1.38.1), \\ d(t) \end{matrix}$$

denote $p(D_{15}(t)fd(t);Q(t);D(t))$, $d(t) \subset D(t)$ and $d(t)$ acts $Q(t)$ out from structure of $D(t)$,

$$\begin{matrix} d(t) \\ p((action\ Q(t))^{-1}Dprt(t))\ (1.39) \\ strD(t) \end{matrix}$$

denote $p(D_{16}(t)fD(t);Q(t);d(t))$, $d(t) \subset D(t)$ and structure of $D(t)$ acts $Q(t)$ out from $d(t)$,

$$\begin{matrix} action\ Q(t) \\ p((action\ Q(t))^{-1}Dprt(t))\ (1.40) \\ D(t) \end{matrix}$$

$$\begin{matrix} action\ Q(t) \\ p((action\ Q(t))^{-1}Dprt(t))\ (1.41) \\ action\ Q(t) \end{matrix}$$

and any other possible options of self for (A.1.2.10) [18] etc.

New mathematical structures and operators is carried out with generalization it to any structures with any actions. For example,

$$1) \begin{matrix} f_{11} & \dots & f_{1k} & & q_{11} & \dots & q_{1n} \\ \dots & \dots & \dots & & & & \\ p((q_{j1})^{-1} & \dots & (q_{jk})^{-1}DDprt & & \dots & &)(*_{A.1}), \\ \dots & \dots & \dots & & q_{m1} & \dots & q_{mn} \\ f_{l1} & \dots & f_{lk} & & & & \end{matrix}$$

f_{ij}, q_{ij} – any objects, actions etc.

$$2) \begin{matrix} g_{11} & g_{12} & & w_{11} & w_{12} & w_{1n} \\ & g_{22} & g_{13} & \dots & \dots & w_{2n} \\ (w_{j1})^{-1} & (w_{j2})^{-1} & (w_{j3})^{-1} & \text{DGprt} & & \dots \\ g_{31} & \dots & & w_{m1} & w_{m2} & \dots \\ & g_{k2} & & & & w_{sn} & w_{ml} \end{matrix})(*_{A.1.1}),$$

w_{ij}, g_{ij} – any objects, actions etc.

3)

$$\begin{matrix} a & b & g \\ p(c & ASrq(\mu) & w) (*_{A.1.2}), \\ d & q & r \end{matrix}$$

where $ASrq$ is virtual structure or virtual operator, which can take any form of action; $a, c, d, q, r, w, g, b, \mu$ – any objects, actions etc.

Accordingly, we can consider all sorts of self-structures for 1) – 3). And any other possible structures and operators etc.

We consider the following self-type fRprt-structures of probability of the first type:

$$\begin{matrix} \text{action } Q & \text{action } Q \\ p(\text{action } P \text{ fRprt } \text{action } Q) (1.42), \\ \text{action } Q & \text{action } Q \end{matrix}$$

denote $p(fr_1 fQ)$.

$$\begin{matrix} \text{action } Q & A \\ p(\text{action } P \text{ fRprt } \text{action } Q) (1.43), \\ A & \text{action } Q \end{matrix}$$

denote $p(fr_2 fA; Q)$.

$$\begin{matrix} B & A \\ p(\text{action } P \text{ fRprt } \text{action } Q) (1.43), \\ A & B \end{matrix}$$

denote $p(fr_3 fA; Q; B)$.

$$\begin{matrix} A & A \\ p(\text{action } P \text{ fRprt } \text{action } Q) (1.44), \\ A & A \end{matrix}$$

denote $p(fr_4 f A; Q)$.

$$p(\overset{a}{\underset{str A}{action}} P \overset{str A}{\underset{a}{fRprt}} action Q) \quad (1.45),$$

denote $p(fr_5 f A; Q; a)$, $a \subset A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p(\overset{Str A}{\underset{a}{action}} P \overset{a}{\underset{Str A}{fRprt}} action Q) \quad (1.46),$$

denote $p(fr_6 f a; Q; A)$, $a \subset A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p(\overset{B}{\underset{B}{action}} P \overset{A}{\underset{B}{fRprt}} action Q) \quad (1.47),$$

and any other possible options of self for (A.1.1) etc.

$$p(\overset{B(t)}{\underset{A(t)}{action}} P(t) \overset{A(t)}{\underset{B(t)}{Rprt(t)}} action Q(t)) \quad (1.48),$$

$$p(\overset{B(t)}{\underset{B(t)}{action}} P(t) \overset{A(t)}{\underset{B(t)}{Rprt(t)}} action Q(t)) \quad (1.49),$$

$$P(\overset{B(t)}{\underset{A(t)}{action}} P(t) \overset{B(t)}{\underset{B(t)}{Rprt(t)}} action Q(t)) \quad (1.50),$$

$$p(\overset{B(t)}{\underset{B(t)}{action}} P(t) \overset{B(t)}{\underset{B(t)}{Rprt(t)}} action Q(t)) \quad (1.51),$$

and any other possible options of self for (B.1.2.1) [18] etc. Likewise for fuzzy

$$\begin{array}{cc} C(t) & A(t) \\ \text{dynamic operator } action & P(t) \text{ Rprt}(t) \text{ action } Q(t). \\ D(t) & B(t) \end{array}$$

self-type SDS-structures

We consider the following self-type SDS-structures of probability of the first type:

$$p\left(\begin{array}{cc} \text{Subject of } Q & \text{Subject of } Q \\ (action \ Q)^{-1} & \text{Subject of } Q \\ \text{Subject of } Q & action \ Q \end{array} \text{SDS} \right) (1.52),$$

denote $p(SD_1 f Q)$,

$$p\left(\begin{array}{cc} action \ Q & \text{Subject of } Q \\ (action \ Q)^{-1} & action \ Q \\ action \ Q & action \ Q \\ \text{Subject of } Q & action \ Q \end{array} \text{SDS} \right) (1.53.1),$$

denote $p(SD_{1,1} f Q)$,

$$p\left(\begin{array}{cc} action \ Q & \text{Subject of } Q \\ (action \ Q)^{-1} & A \\ A & action \ Q \\ \text{Subject of } Q & action \ Q \end{array} \text{SDS} \right) (1.54),$$

denote $p(SD_2 f A; Q)$,

$$p\left(\begin{array}{cc} B & \text{Subject of } Q \\ (action \ Q)^{-1} & A \\ A & action \ Q \\ \text{Subject of } Q & B \end{array} \text{SDS} \right) (1.55),$$

denote $p(SD_3 f A; Q; B)$.

$$p\left(\begin{array}{cc} A & \text{Subject of } Q \\ (action \ Q)^{-1} & A \\ A & action \ Q \\ \text{Subject of } Q & A \end{array} \text{SDS} \right) (1.56),$$

denote $p(SD_4 f A; Q)$.

$$p\left(\begin{array}{c} a \\ \text{action } Q \end{array}^{-1} \text{SDS} \begin{array}{c} \text{Subject of } Q \\ \text{str } A \\ \text{action } Q \\ a \end{array} \right) (1.56.1),$$

denote $p(SD_5 f A; Q; a)$, $a \in A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p\left(\begin{array}{c} \text{Str } A \\ a \end{array}^{-1} \text{SDS} \begin{array}{c} \text{Subject of } Q \\ a \\ \text{action } Q \\ \text{Str } A \end{array} \right) (1.56.2),$$

denote $p(SD_6 f a; Q; A)$, $a \in A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p\left(\begin{array}{c} B \\ \text{action } Q \end{array}^{-1} \text{SDS} \begin{array}{c} \text{Subject of } Q \\ A \\ \text{action } Q \\ B \end{array} \right) (1.57),$$

and any other possible options of self for (D.1.1) [18] etc.

self-type SRS-structures

We consider the following self-type SRS-structures of probability of the first type:

$$p\left(\begin{array}{c} \text{Subject of } Q \\ \text{action } P \\ \text{Subject of } Q \end{array} \text{SRS} \begin{array}{c} \text{Subject of } Q \\ \text{Subject of } Q \\ \text{action } Q \\ \text{Subject of } Q \end{array} \right) (1.58),$$

denote $p(SR_1 f Q)$,

$$p\left(\begin{array}{c} \text{action } Q \\ \text{action } P \\ \text{action } Q \\ \text{Subject of } Q \end{array} \text{SRS} \begin{array}{c} \text{Subject of } Q \\ \text{action } Q \\ \text{action } Q \\ \text{action } Q \end{array} \right) (1.58.1),$$

denote $p(SR_{1,1} f Q)$,

$$p\left(\begin{array}{ccc} \text{action } Q & & \text{Subject of } Q \\ \text{action } P & \text{SRS} & A \\ A & & \text{action } Q \\ \text{Subject of } Q & & \text{action } Q \end{array} \right) (1.59),$$

denote $p(SR_2 f A; Q)$,

$$p\left(\begin{array}{ccc} B & & \text{Subject of } Q \\ \text{action } P & \text{SRS} & A \\ A & & \text{action } Q \\ \text{Subject of } Q & & B \end{array} \right) (1.60),$$

denote $p(SR_3 f A; Q; B)$.

$$p\left(\begin{array}{ccc} A & & \text{Subject of } Q \\ \text{action } P & \text{SRS} & A \\ A & & \text{action } Q \\ \text{Subject of } Q & & A \end{array} \right) (1.61),$$

denote $p(SR_4 f A; Q)$.

$$p\left(\begin{array}{ccc} a & & \text{Subject of } Q \\ \text{action } P & \text{SRS} & \text{str } A \\ \text{str } A & & \text{action } Q \\ \text{Subject of } Q & & a \end{array} \right) (1.61.1),$$

denote $p(SR_5 f A; Q; a)$, $a \subset A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p\left(\begin{array}{ccc} \text{Str } A & & \text{Subject of } Q \\ \text{action } P & \text{SRS} & a \\ a & & \text{action } Q \\ \text{Subject of } Q & & \text{Str } A \end{array} \right) (1.61.2),$$

denote $p(SR_6 f a; Q; A)$, $a \subset A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p\left(\begin{array}{ccc} B & & \text{Subject of } Q \\ \text{action } P & \text{SRS} & A \\ B & & \text{action } Q \\ \text{Subject of } Q & & B \end{array} \right) (1.62),$$

and any other possible options of self for (D.1.1) [18] etc.

We consider the following self-type SDS-structures of the second t type:

$$p(\text{SDS} \begin{array}{c} \text{Subject of } Q \\ A \\ \text{action } Q \\ A \end{array}) (1.63),$$

$$p(\text{SDS} \begin{array}{c} \text{Subject of } Q \\ \text{str } A \\ \text{action } Q \\ a \end{array}) (1.64.1),$$

denote $p(\text{SD}_7 f A; Q; a)$, $a \in A$ and structure of A acts Q to a ,

$$p(\text{SDS} \begin{array}{c} \text{Subject of } Q \\ a \\ \text{action } Q \\ \text{str } A \end{array}) (1.64.2),$$

denote $p(\text{SD}_8 f a; Q; A)$, $a \in A$ and acts Q to structure of A ,

$$p(\text{SDS} \begin{array}{c} \text{Subject of } Q \\ \text{Subject of } Q \\ \text{action } Q \\ \text{Subject of } Q \end{array}) (1.65),$$

$$p(\text{SDS} \begin{array}{c} \text{Subject of } Q \\ \text{action } Q \\ \text{action } Q \\ \text{action } Q \end{array}) (1.65.1),$$

$$p(\text{SDS} \begin{array}{c} \text{Subject of } Q \\ A \\ \text{action } Q \\ \text{action } Q \end{array}) (1.66),$$

and any other possible options of self for (D.1.8) [18] etc.

We consider the following self-type tSDS -structures of probability:

$$p(\begin{array}{c} D \\ (\text{action } Q)^{-1} \\ D \end{array} \text{SDS}) (1.67)$$

Subject of Q

$$p(\overset{strD}{(action\ Q)^{-1}}_{d} SDS)(1.67.1),$$

Subject of Q

denote $p(SD_9fd;Q;D)$, $d \in D$ and d acts Q out from structure of D ,

$$p(\overset{d}{(action\ Q)^{-1}}_{strD} SDS)(1.67.2),$$

Subject of Q

denote $p(SD_{10}fD;Q;d)$, $d \in D$ and structure of D acts Q out from d ,

$$p(\overset{action\ Q}{(action\ Q)^{-1}}_D SDS)(1.68)$$

Subject of Q

$$p(\overset{action\ Q}{(action\ Q)^{-1}}_{action\ Q} SDS)(1.69)$$

Subject of Q

$$p(\overset{Subject\ of\ Q}{(action\ Q)^{-1}}_{Subject\ of\ Q} SDS)(1.69.1)$$

Subject of Q

and any other possible options of self for (D.1.10) [18] etc.

We consider the following self-type dynamic SDS -structures of probability of the first type:

$$p(\overset{Subject\ of\ Q(t)}{(action\ Q(t))^{-1}}_{Subject\ of\ Q(t)} SDS(t) \overset{Subject\ of\ Q(t)}{action\ Q(t)}_{Subject\ of\ Q(t)})(1.70),$$

$$p\left(\begin{array}{c} \text{action } Q(t) \\ (\text{action } Q(t))^{-1} \\ \text{action } Q(t) \\ \text{Subject of } Q(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \end{array} \right) (1.71),$$

$$p\left(\begin{array}{c} \text{action } Q(t) \\ (\text{action } Q(t))^{-1} \\ A(t) \\ \text{Subject of } Q(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \end{array} \right) (1.72),$$

$$p\left(\begin{array}{c} B(t) \\ (\text{action } Q(t))^{-1} \\ A(t) \\ \text{Subject of } Q(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ B(t) \end{array} \right) (1.73),$$

$$P\left(\begin{array}{c} A(t) \\ (\text{action } Q(t))^{-1} \\ A(t) \\ \text{Subject of } Q(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ A(t) \end{array} \right) (1.74),$$

$$P\left(\begin{array}{c} a(t) \\ (\text{action } Q(t))^{-1} \\ \text{str}A(t) \\ \text{Subject of } Q(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ \text{str}A(t) \\ \text{action } Q(t) \\ a(t) \end{array} \right) (1.74.1),$$

denote $p(\text{SD}_{11}(t)fA(t);Q(t);a(t))$, $a(t) \subset A(t)$ and structure of $A(t)$ acts $Q(t)$ to $a(t)$ and acts $Q(t)$ out from $a(t)$ simultaneously,

$$p\left(\begin{array}{c} \text{str}A(t) \\ (\text{action } Q(t))^{-1} \\ a(t) \\ \text{Subject of } Q(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ a(t) \\ \text{action } Q(t) \\ \text{str}A(t) \end{array} \right) (1.74.2),$$

denote $p(\text{SD}_{12}(t)fa(t);Q(t);A(t))$, $a(t) \subset A(t)$ and acts $Q(t)$ to structure of $A(t)$ and acts $Q(t)$ out from structure of $A(t)$ simultaneously,

$$p\left(\begin{array}{c} B(t) \\ \text{action } Q(t) \\ B(t) \end{array} \text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ B(t) \end{array}\right)^{-1} \quad (1.75),$$

and any other possible options of self for (D.2.1) [18] etc.

We consider the following self-type dynamic SDS(t) structures of probability of the second t type:

$$p(\text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ A(t) \end{array}) \quad (1.76),$$

$$p(\text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ \text{str}A(t) \\ \text{action } Q(t) \\ a(t) \end{array}) \quad (1.76.1),$$

denote $p(\text{SD}_{13}(t) f A(t); Q(t); a(t))$, $a(t) \subset A(t)$ and structure of $A(t)$ acts $Q(t)$ to $a(t)$,

$$p(\text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ a(t) \\ \text{action } Q(t) \\ \text{str}A(t) \end{array}) \quad (1.76.2),$$

denote $p(\text{SD}_{14}(t) f a(t); Q(t); A(t))$, $a(t) \subset A(t)$ and acts $Q(t)$ to structure of $A(t)$,

$$p(\text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \end{array}) \quad (1.77),$$

$$p(\text{SDS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ \text{Subject of } Q(t) \\ \text{action } Q(t) \\ \text{Subject of } Q(t) \end{array}) \quad (1.77.1),$$

$$p(\text{SDS}(t) \begin{matrix} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \end{matrix}) (1.77.2),$$

$$p(\text{SDS}(t) \begin{matrix} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \end{matrix}) (1.77.3),$$

$$p(\text{SDS}(t) \begin{matrix} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \end{matrix}) (1.78),$$

$$p(\text{SDS}(t) \begin{matrix} \text{Subject of } Q(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \\ B(t) \end{matrix}) (1.78.1),$$

and any other possible options of self for (D.2.8) [18] etc.

We consider the following self-type dynamic tSDS-structures of probability: $pP(\text{SDS}(t) \begin{matrix} D(t) \\ \text{action } Q(t) \end{matrix})^{-1} \text{SDS}(t) \end{matrix}) (1.79)$

$$p(\text{SDS}(t) \begin{matrix} \text{Subject of } Q(t) \\ \text{str } D(t) \\ \text{action } Q(t) \\ d(t) \end{matrix})^{-1} \text{SDS}(t) \end{matrix}) (1.79.1),$$

denote $p(\text{SD}_{15}(t) \text{ f } d(t); Q(t); D(t))$, $d(t) \subset D(t)$ and $d(t)$ acts $Q(t)$ out from structure of $D(t)$,

$$p(\begin{matrix} d(t) \\ (action\ Q(t))^{-1} \\ strD(t) \end{matrix} SDS(t)) \quad (1.79.2)$$

Subject of Q(t)

denote $p(SD_{16}(t)fD(t);Q(t);d(t))$, $d(t) \subset D(t)$ and structure of $D(t)$ acts $Q(t)$ out from $d(t)$,

$$p(\begin{matrix} action\ Q(t) \\ (action\ Q(t))^{-1} \\ D(t) \end{matrix} SDS(t)) \quad (1.80)$$

Subject of Q(t)

$$p(\begin{matrix} C(t) \\ (action\ Q(t))^{-1} \\ action\ Q(t) \end{matrix} SDS(t)) \quad (1.80.1)$$

Subject of Q(t)

$$p(\begin{matrix} action\ Q(t) \\ (action\ Q(t))^{-1} \\ action\ Q(t) \end{matrix} SDS(t)) \quad (1.80.2)$$

Subject of Q(t)

$$P(\begin{matrix} Subject\ of\ Q(t) \\ (action\ Q(t))^{-1} \\ Subject\ of\ Q(t) \end{matrix} SDS(t)) \quad (1.81)$$

Subject of Q(t)

$$P(\begin{matrix} Subject\ of\ Q(t) \\ (action\ Q(t))^{-1} \\ D(t) \end{matrix} SDS(t)) \quad (1.81.1)$$

Subject of Q(t)

$$P(\begin{matrix} C(t) \\ (action\ Q(t))^{-1} \\ Subject\ of\ Q(t) \end{matrix} SDS(t)) \quad (1.81.2)$$

Subject of Q(t)

and any other possible options of self for (D.2.10) [18] etc.

New mathematical structures and operators is carried out with generalization it to any structures with any actions. For example,

$$1) \begin{pmatrix} f_{11} & \dots & f_{1k} \\ \dots & \dots & \dots \\ \dots & \dots & \dots \end{pmatrix}^{-1} \begin{pmatrix} q_{11} & \dots & q_{1n} \\ \dots & \dots & \dots \\ q_{m1} & \dots & q_{mn} \end{pmatrix} \text{DDprt} (*_D),$$

f_{ij}, q_{ij} – any objects, actions etc.

$$2) \begin{pmatrix} g_{11} & g_{12} & g_{13} \\ \dots & \dots & \dots \\ g_{31} & \dots & g_{k2} \end{pmatrix}^{-1} \begin{pmatrix} w_{11} & w_{12} & \dots & w_{1n} \\ \dots & \dots & \dots & \dots \\ w_{m1} & w_{m2} & \dots & w_{sn} \end{pmatrix} \text{DGprt} (*_{D.1}),$$

w_{ij}, g_{ij} – any objects, actions etc.

3)

$$\begin{pmatrix} a & b & g \\ c & ASrq(\mu) & w \\ d & q & r \end{pmatrix} (*_{D.2}),$$

where $ASrq$ is virtual structure or virtual operator, which can take any form of action; $a, c, d, q, r, w, g, b, \mu$ – any objects, actions etc.

Accordingly, we can consider all sorts of self-structures for 1) – 3). And any other possible structures and operators etc.

We consider the following self-type Rprt-structures of probability of the first type:

$$p \left(\begin{matrix} \text{Subject of } P & \text{Subject of } Q \\ \text{action } P & \text{Subject of } Q \\ \text{Subject of } P & \text{action } Q \end{matrix} \text{SRS} \right) (1.83),$$

denote $p(SR_1 f Q)$.

$$p \left(\begin{matrix} \text{Subject of } Q & \text{Subject of } Q \\ \text{action } Q & \text{Subject of } Q \\ \text{Subject of } Q & \text{action } Q \end{matrix} \text{SRS} \right) (1.83.0),$$

$$p\left(\begin{array}{cc} \text{action } Q & \text{Subject of } Q \\ (\text{action } Q)^{-1} & \text{action } Q \\ \text{action } Q & \text{action } Q \\ \text{Subject of } Q & \text{action } Q \end{array} \text{SRS}\right) (1.83.1),$$

denote $p(SR_{1,1}fQ)$,

$$p\left(\begin{array}{cc} \text{action } Q & \text{Subject of } Q \\ (\text{action } Q)^{-1} & A \\ A & \text{action } Q \\ \text{Subject of } Q & \text{action } Q \end{array} \text{SRS}\right) (1.84),$$

denote $p(SR_2fA;Q)$,

$$p\left(\begin{array}{cc} B & \text{Subject of } Q \\ (\text{action } Q)^{-1} & A \\ A & \text{action } Q \\ \text{Subject of } Q & B \end{array} \text{SRS}\right) (1.85),$$

denote $p(SR_3fA;Q;B)$.

$$p\left(\begin{array}{cc} B & \text{Subject of } Q \\ \text{action } P & A \\ A & \text{action } Q \\ \text{Subject of } P & B \end{array} \text{SRS}\right) (1.85.1),$$

$$p\left(\begin{array}{cc} A & \text{Subject of } Q \\ (\text{action } Q)^{-1} & A \\ A & \text{action } Q \\ \text{Subject of } Q & A \end{array} \text{SRS}\right) (1.86),$$

denote $p(SR_4fA;Q)$.

$$p\left(\begin{array}{cc} A & \text{Subject of } Q \\ \text{action } P & A \\ A & \text{action } Q \\ \text{Subject of } P & A \end{array} \text{SRS}\right) (1.86.0),$$

$$p\left(\begin{array}{cc} a & \text{Subject of } Q \\ (\text{action } Q)^{-1} & \text{str } A \\ \text{str } A & \text{action } Q \\ \text{Subject of } Q & a \end{array} \text{SRS}\right) (1.86.1),$$

denote $p(SR_5 f A; Q; a)$, $a \in A$ and structure of A acts Q to a and acts Q out from a simultaneously,

$$p\left(\begin{array}{c} \text{Str } A \\ \text{action } Q \\ \text{Subject of } Q \end{array} \begin{array}{c} \text{SRS} \\ a \\ \text{action } Q \end{array} \begin{array}{c} \text{Subject of } Q \\ a \\ \text{Str } A \end{array} \right) (1.87),$$

denote $SR_6 f a; Q; A$, $a \in A$ and acts Q to structure of A and acts Q out from structure of A simultaneously,

$$p\left(\begin{array}{c} B \\ \text{action } Q \\ \text{Subject of } Q \end{array} \begin{array}{c} \text{SRS} \\ B \\ \text{action } Q \end{array} \begin{array}{c} \text{Subject of } Q \\ A \\ B \end{array} \right) (1.88),$$

$$p\left(\begin{array}{c} B \\ \text{action } P \\ \text{Subject of } P \end{array} \begin{array}{c} \text{SRS} \\ B \\ \text{action } Q \end{array} \begin{array}{c} \text{Subject of } Q \\ A \\ B \end{array} \right) (1.89),$$

$$p\left(\begin{array}{c} B \\ \text{action } P \\ \text{Subject of } P \end{array} \begin{array}{c} \text{SRS} \\ A \\ \text{action } Q \end{array} \begin{array}{c} \text{Subject of } Q \\ B \\ B \end{array} \right) (1.90),$$

$$p\left(\begin{array}{c} A \\ \text{action } P \\ \text{Subject of } P \end{array} \begin{array}{c} \text{SRS} \\ A \\ \text{action } Q \end{array} \begin{array}{c} \text{Subject of } Q \\ A \\ A \end{array} \right) (1.91),$$

and any other possible options of self for (E.1.1) [18] etc.

We consider the following self-type SRS-structures of probability of the second type:

$$p\left(\begin{array}{c} \text{Subject of } Q \\ A \\ \text{action } Q \\ A \end{array} \begin{array}{c} \text{SRS} \\ A \\ \text{action } Q \\ A \end{array} \right) (1.92),$$

$$p(\text{SRS } \begin{matrix} \text{Subject of } Q \\ \text{str } A \\ \text{action } Q \\ a \end{matrix})(1.92.1),$$

denote $p(\text{SR}_7 f A; Q; a)$, $a \in A$ and structure of A acts Q to a ,

$$p(\text{SRS } \begin{matrix} \text{Subject of } Q \\ a \\ \text{action } Q \\ \text{str } A \end{matrix})(1.92.2),$$

denote $p(\text{SR}_8 f a; Q; A)$, $a \in A$ and acts Q to structure of A ,

$$p(\text{SRS } \begin{matrix} \text{Subject of } Q \\ \text{Subject of } Q \\ \text{action } Q \\ \text{Subject of } Q \end{matrix})(1.93),$$

$$p(\text{SRS } \begin{matrix} \text{Subject of } Q \\ \text{action } Q \\ \text{action } Q \\ \text{action } Q \end{matrix})(1.93.1),$$

$$p(\text{SRS } \begin{matrix} \text{Subject of } Q \\ A \\ \text{action } Q \\ \text{action } Q \end{matrix})(1.94),$$

and any other possible options of self for (E.1.12) [18] etc.

We consider the following self-type tSRS-structures of probability:

$$p(\begin{matrix} D \\ \text{action } P \\ D \end{matrix} \text{SRS})(1.95)$$

Subject of P

$$P(\begin{matrix} \text{str } D \\ \text{action } P \\ d \end{matrix} \text{SRS})(1.95.1),$$

Subject of P

denote $p(\text{R}_9 f d; Q; D)$, $d \in D$ and d acts Q out from structure of D ,

$$p(\begin{matrix} d \\ \text{action } P \\ \text{str } D \\ \text{Subject of } P \end{matrix} \text{SRS})(1.95.2),$$

denote $p(R_{10}fD;Q;d)$, $d \in D$ and structure of D acts Q out from d ,

$$p(\begin{matrix} \text{action } Q \\ (\text{action } Q)^{-1} \\ D \\ \text{Subject of } Q \end{matrix} \text{SRS})(1.96)$$

$$P(\begin{matrix} \text{Subject of } Q \\ (\text{action } Q)^{-1} \\ \text{Subject of } Q \\ \text{Subject of } Q \end{matrix} \text{SRS})(1.97)$$

$$P(\begin{matrix} \text{action } Q \\ (\text{action } Q)^{-1} \\ \text{action } Q \\ \text{Subject of } Q \end{matrix} \text{SRS})(1.97.1)$$

and any other possible options of self for (E.1.14) [18] etc.

We consider the following self-type dynamic SRS -structures of probability of the first type:

$$p(\begin{matrix} \text{Subject of } Q(t) & \text{Subject of } Q(t) \\ (\text{action } Q(t))^{-1} & \text{Subject of } Q(t) \\ \text{Subject of } Q(t) & \text{action } Q(t) \\ \text{Subject of } Q(t) & \text{Subject of } Q(t) \end{matrix} \text{SRS}(t)) (1.98),$$

$$p(\begin{matrix} \text{action } Q(t) & \text{Subject of } Q(t) \\ (\text{action } Q(t))^{-1} & \text{action } Q(t) \\ \text{action } Q(t) & \text{action } Q(t) \\ \text{Subject of } Q(t) & \text{action } Q(t) \end{matrix} \text{SRS}(t)) (1.98.1),$$

$$P\left(\begin{array}{c} \text{action } Q(t) \\ (action\ Q(t))^{-1} \\ A(t) \\ \text{Subject of } Q(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ \text{action } Q(t) \end{array} \right) (1.99),$$

$$p\left(\begin{array}{c} B(t) \\ (action\ Q(t))^{-1} \\ A(t) \\ \text{Subject of } Q(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ B(t) \end{array} \right) (1.100),$$

$$p\left(\begin{array}{c} B(t) \\ \text{action } P(t) \\ A(t) \\ \text{Subject of } P(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ B(t) \end{array} \right) (1.101),$$

$$p\left(\begin{array}{c} A(t) \\ (action\ Q(t))^{-1} \\ A(t) \\ \text{Subject of } Q(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ A(t) \end{array} \right) (1.102),$$

$$P\left(\begin{array}{c} A(t) \\ \text{action } P(t) \\ A(t) \\ \text{Subject of } P(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ A(t) \end{array} \right) (1.102.1),$$

$$P\left(\begin{array}{c} a(t) \\ (action\ Q(t))^{-1} \\ strA(t) \\ \text{Subject of } Q(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ strA(t) \\ \text{action } Q(t) \\ a(t) \end{array} \right) (1.102.2),$$

denote $p(SR_{11}(t)fA(t);Q(t);a(t))$, $a(t) \subset A(t)$ and structure of $A(t)$ acts $Q(t)$ to $a(t)$ and acts $Q(t)$ out from $a(t)$ simultaneously,

$$p\left(\begin{array}{c} strA(t) \\ (action\ Q(t))^{-1} \\ a(t) \\ \text{Subject of } Q(t) \end{array} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ a(t) \\ \text{action } Q(t) \\ strA(t) \end{array} \right) (1.102.3),$$

denote $p(SR_{12}(t)fa(t);Q(t);A(t))$, $a(t) \subset A(t)$ and acts $Q(t)$ to structure of $A(t)$ and acts $Q(t)$ out from structure of $A(t)$ simultaneously,

$$p\left(\begin{array}{c} B(t) \\ \text{action } Q(t) \\ B(t) \end{array} \right)^{-1} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ B(t) \end{array} \right) (1.103),$$

$$p\left(\begin{array}{c} B(t) \\ \text{action } P(t) \\ B(t) \end{array} \right)^{-1} \text{SRS}(t) \begin{array}{c} \text{Subject of } Q(t) \\ A(t) \\ \text{action } Q(t) \\ B(t) \end{array} \right) (1.103.1),$$

and any other possible options of self for (E.2.1) [18] etc.

We consider the following self-type Lprt-structure of probability of the first type:

$$\begin{array}{c} Q \\ \uparrow \\ p(\overline{Q} \text{Lprt } \overline{Q}) \\ \uparrow \\ \tilde{Q} \end{array} \begin{array}{c} \tilde{Q} \\ \uparrow \\ \overline{Q} \\ \uparrow \\ Q \end{array} (1.103.2),$$

denote $p(L_1 f Q)$.

$$\begin{array}{c} Q \\ \uparrow \\ p(\overline{Q} \text{Lprt } \overline{Q}) \\ \uparrow \\ \tilde{A} \end{array} \begin{array}{c} \tilde{A} \\ \uparrow \\ \overline{Q} \\ \uparrow \\ Q \end{array} (1.103.3),$$

denote $p(L_2 f A; Q)$.

$$\begin{array}{c} B \\ \uparrow \\ p(\overline{Q} \text{Lprt } \overline{Q}) \\ \uparrow \\ \tilde{A} \end{array} \begin{array}{c} \tilde{A} \\ \uparrow \\ \overline{Q} \\ \uparrow \\ B \end{array} (1.103.4),$$

denote $p(L_3 f A; Q; B)$.

$$\begin{array}{ccc}
A & & \tilde{A} \\
\uparrow & & \uparrow \\
P(\overline{Q} \text{Lprt } \overline{Q}) & & (1.103.5), \\
\uparrow & & \uparrow \\
\tilde{A} & & A
\end{array}$$

denote $p(L_4 f A; Q)$.

$$\begin{array}{ccc}
a & & \text{str } \tilde{A} \\
\uparrow & & \uparrow \\
p(\overline{Q} \text{Lprt } \overline{Q}) & & (1.103.6), \\
\uparrow & & \uparrow \\
\tilde{A} & & a
\end{array}$$

denote $p(L_5 f A; Q; a)$, $a \in A$,

$$\begin{array}{ccc}
\text{str } A & & \tilde{a} \\
\uparrow & & \uparrow \\
p(\overline{Q} \text{Lprt } \overline{Q}) & & (1.103.7), \\
\uparrow & & \uparrow \\
\tilde{a} & & \text{str } A
\end{array}$$

denote $p(L_6 f a; Q; A)$, $a \in A$,

$$\begin{array}{ccc}
B & & \tilde{A} \\
\uparrow & & \uparrow \\
p(\overline{Q} \text{Lprt } \overline{Q}) & & (1.103.8), \\
\uparrow & & \uparrow \\
\tilde{B} & & B
\end{array}$$

and any other possible options of self for (1.1) [22] etc.

We consider the following self-type Lprt-structures of probability of the second type:

$$\begin{array}{ccc}
& & \tilde{A} \\
& & \uparrow \\
p(\text{Lprt } \overline{Q}) & & (1.103.9), \\
& & \uparrow \\
& & A
\end{array}$$

$$\begin{array}{c} \widetilde{A} \\ \uparrow \\ p(\text{Lprt } \overline{Q}) (1.103.10), \\ \uparrow \\ a \end{array}$$

denote $p(L_7 f A; Q; a)$, $a \subset A$,

$$\begin{array}{c} a \\ \uparrow \\ p(\text{Lprt } \overline{Q}) (1.103.11), \\ \uparrow \\ \text{str} A \end{array}$$

denote $p(L_8 f a; Q; A)$, $a \subset A$,

$$\begin{array}{c} \widetilde{A} \\ \uparrow \\ p(\text{Lprt } \overline{Q}) (1.103.12), \\ \uparrow \\ Q \end{array}$$

and any other possible options of self for (1.8) [22] etc.

We consider the following self-type tprL-structures of probability:

$$\begin{array}{c} R \\ \uparrow \\ p(\overline{P} \text{Lprt}) (1.103.13), \\ \uparrow \\ \widetilde{R} \end{array}$$

$$\begin{array}{c} \text{str} D \\ \uparrow \\ p(\overline{P} \text{Lprt}) (1.103.14), \\ \uparrow \\ \widetilde{d} \end{array}$$

denote $p(L_9 f d; Q; D)$, $d \subset D$,

$$\begin{array}{c}
d \\
\uparrow \\
p(\overline{P} \text{ Lprt})(1.103.15), \\
\uparrow \\
str \widetilde{D}
\end{array}$$

denote $p(L_{10}fD;Q;d)$, $d \in D$,

$$\begin{array}{c}
P \\
\uparrow \\
p(\overline{P} \text{ Lprt})(1.103.16), \\
\uparrow \\
\widetilde{R}
\end{array}$$

and any other possible options of self for (1.10) [22] etc.

We consider the following self-type dynamic Lprt-structures of probability of the first type:

$$\begin{array}{cc}
Q(t) & \widetilde{Q(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)} \text{ Lprt}(t) \overline{Q(t)}) (1.103.17), & \\
\uparrow & \uparrow \\
\widetilde{Q(t)} & Q(t)
\end{array}$$

$$\begin{array}{cc}
Q(t) & \widetilde{A(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)} \text{ Lprt}(t) \overline{Q(t)}) (1.103.18), & \\
\uparrow & \uparrow \\
\widetilde{A(t)} & Q(t)
\end{array}$$

$$\begin{array}{cc}
B(t) & \widetilde{A(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)} \text{ Lprt}(t) \overline{Q(t)}) (1.103.19), & \\
\uparrow & \uparrow \\
\widetilde{A(t)} & B(t)
\end{array}$$

$$\begin{array}{ccc}
A(t) & & \overline{A(t)} \\
\uparrow & & \uparrow \\
p(\overline{Q(t)} \text{Lprt}(t) \overline{Q(t)}) (1.103.20), \\
\uparrow & & \uparrow \\
\overline{A(t)} & & A(t) \\
a(t) & & \text{str } \overline{A(t)} \\
\uparrow & & \uparrow \\
p(\overline{Q(t)} \text{Lprt}(t) \overline{Q(t)}) (1.103.21), \\
\uparrow & & \uparrow \\
\text{str } \overline{A(t)} & & a(t)
\end{array}$$

denote $p(L_{11}(t) f A(t); Q(t); a(t))$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
\text{str } A(t) & & \overline{a(t)} \\
\uparrow & & \uparrow \\
p(\overline{Q(t)} \text{Lprt}(t) \overline{Q(t)}) (1.103.22), \\
\uparrow & & \uparrow \\
\overline{a(t)} & & \text{str } A(t)
\end{array}$$

denote $p(L_{12}(t) f a(t); Q(t); A(t))$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
B(t) & & \overline{A(t)} \\
\uparrow & & \uparrow \\
p(\overline{Q(t)} \text{Lprt}(t) \overline{Q(t)}) (1.103.23), \\
\uparrow & & \uparrow \\
\overline{B(t)} & & B(t)
\end{array}$$

and any other possible options of self for (2.1) [22] etc.

We consider the following self-type dynamic Lprt-structures of probability of the second t type:

$$\begin{array}{ccc}
\overline{A(t)} \\
\uparrow \\
p(\text{Lprt}(t) \overline{Q(t)}) (1.103.24), \\
\uparrow \\
A(t)
\end{array}$$

$$\begin{array}{c} \overbrace{str A(t)} \\ \uparrow \\ p(Lprt(t) \overline{Q(t)}) (1.103.25), \\ \uparrow \\ a(t) \end{array}$$

denote $p(L_{13}(t) f A(t); Q(t); a(t))$, $a(t) \subset A(t)$,

$$\begin{array}{c} \overbrace{a(t)} \\ \uparrow \\ p(Lprt(t) \overline{Q(t)}) (1.103.26), \\ \uparrow \\ str A(t) \end{array}$$

denote $p(L_{14}(t) f a(t); Q(t); A(t))$, $a(t) \subset A(t)$,

$$\begin{array}{c} \overbrace{A(t)} \\ \uparrow \\ p(Lprt(t) \overline{Q(t)}) (1.103.27), \\ \uparrow \\ Q(t) \end{array}$$

and any other possible options of self for (2.8) [22] etc.

We consider the following self-type dynamic tprL-structures of probability:

$$\begin{array}{c} R(t) \\ \uparrow \\ p(\overline{P(t)} Lprt(t)) (1.103.28), \\ \uparrow \\ \overbrace{R(t)} \end{array}$$

$$\begin{array}{c} str D(t) \\ \uparrow \\ p(\overline{P(t)} Lprt(t)) (1.103.29), \\ \uparrow \\ \overbrace{d(t)} \end{array}$$

denote $p(L_{15}(t)fd(t);\overline{P(t)};D(t)), d(t) \subset D(t)$,

$$\begin{array}{c} d(t) \\ \uparrow \\ p(\overline{P(t)} \text{ FLprt}(t))(1.103.30), \\ \uparrow \\ \overbrace{str D(t)} \end{array}$$

denote $p(L_{16}(t)fD(t);\overline{P(t)};d(t)), d(t) \subset D(t)$,

$$\begin{array}{c} P(t) \\ \uparrow \\ p(\overline{P(t)} \text{ Lprt}(t))(1.103.31), \\ \uparrow \\ \overbrace{R(t)} \end{array}$$

and any other possible options of self for (2.10) [22] etc.

New mathematical structures and operators are carried out with generalization it to any structures with any actions. For example,

$$1) \begin{array}{ccccccc} f_{11} & \cdots & f_{1k} & & q_{11} & \cdots & q_{1n} \\ \cdots & \cdots & \cdots & & \cdots & \cdots & \cdots \\ p((q_{j1})^{-1} & \cdots & (q_{jk})^{-1} \text{ LLprt} & & \cdots & & \cdots) (*_{L.1}), \\ \cdots & \cdots & \cdots & & q_{m1} & \cdots & q_{mn} \\ f_{l1} & \cdots & f_{lk} & & & & \end{array}$$

f_{ij}, q_{ij} – any fuzzy objects, fuzzy actions etc.

$$2) \begin{array}{ccccccc} & g_{12} & & w_{11} & w_{12} & w_{1n} \\ g_{11} & g_{22} & & \cdots & \cdots & w_{2n} \\ p((w_{j1})^{-1} & (w_{j2})^{-1} & g_{13} & \text{ LGprt} & & \cdots & \cdots) (*_{L.2}), \\ g_{31} & \cdots & (w_{j3})^{-1} & w_{m1} & w_{m2} & \cdots & w_{sn} \\ & g_{k2} & & & & & w_{ml} \end{array}$$

w_{ij}, g_{ij} – any fuzzy objects, fuzzy actions etc.

3)

$$\begin{array}{ccc} a & b & g \\ p(c \text{ ALrq}(\mu) & w &) (*_{L.3}), \\ d & q & r \end{array}$$

where $ALrq$ is fuzzy virtual structure or fuzzy virtual operator, which can take any form of fuzzy action; $a, c, d, q, r, w, g, b, \mu$ – any fuzzy objects, fuzzy actions etc.

Accordingly, we can consider all sorts of self-type fuzzy structures for 1) – 3). And any other possible fuzzy structures and fuzzy operators etc.

We consider the following self-type FLprt-structure of probability of the first type:

$$\begin{array}{ccc} Q & & \tilde{Q} \\ \uparrow & & \uparrow \\ p(\overline{Q}FLprt \overline{Q}) & & (1.103.32), \\ \uparrow & & \uparrow \\ \tilde{Q} & & Q \end{array}$$

denote $p(FL_1 f Q)$.

$$\begin{array}{ccc} Q & & \tilde{A} \\ \uparrow & & \uparrow \\ p(\overline{Q}FLprt \overline{Q}) & & (1.103.33), \\ \uparrow & & \uparrow \\ \tilde{A} & & Q \end{array}$$

denote $p(FL_2 f A; Q)$.

$$\begin{array}{ccc} B & & \tilde{A} \\ \uparrow & & \uparrow \\ p(\overline{Q}FLprt \overline{Q}) & & (1.103.34), \\ \uparrow & & \uparrow \\ \tilde{A} & & B \end{array}$$

denote $p(FL_3 f A; Q; B)$,

$$\begin{array}{ccc} A & & \tilde{A} \\ \uparrow & & \uparrow \\ p(\overline{Q}FLprt \overline{Q}) & & (1.103.35), \\ \uparrow & & \uparrow \\ \tilde{A} & & A \end{array}$$

denote $p(FL_4 f A; Q)$,

$$\begin{array}{ccc}
a & & str \tilde{A} \\
\uparrow & & \uparrow \\
p(\overline{Q}FLprt & \overline{Q}) & (1.103.36), \\
\uparrow & & \uparrow \\
\tilde{A} & & a
\end{array}$$

denote $p(FL_5 f A; Q; a)$, $a \in A$,

$$\begin{array}{ccc}
str A & & \tilde{a} \\
\uparrow & & \uparrow \\
p(\overline{Q}FLprt & \overline{Q}) & (1.103.37), \\
\uparrow & & \uparrow \\
\tilde{a} & & str A
\end{array}$$

denote $p(FL_6 f a; Q; A)$, $a \in A$,

$$\begin{array}{ccc}
B & & \tilde{A} \\
\uparrow & & \uparrow \\
p(\overline{Q}FLprt & \overline{Q}) & (1.103.38), \\
\uparrow & & \uparrow \\
\tilde{B} & & B
\end{array}$$

and any other possible options of self for (C.2.1.1) [18] etc.

We consider the following self-type FLprt-structures of probability of the second type:

$$\begin{array}{ccc}
\tilde{A} \\
\uparrow \\
p(FLprt & \overline{Q}) & (1.103.39), \\
\uparrow \\
A
\end{array}$$

$$\begin{array}{ccc}
str \tilde{A} \\
\uparrow \\
p(FLprt & \overline{Q}) & (1.103.40), \\
\uparrow \\
a
\end{array}$$

denote $p(FL_7 f A; Q; a)$, $a \in A$,

$$\begin{array}{c}
a \\
\uparrow \\
p(\text{FLprt } \overline{Q})(1.103.41), \\
\uparrow \\
strA
\end{array}$$

denote $p(\text{FL}_8 fa; Q; A)$, $a \in A$,

$$\begin{array}{c}
\tilde{A} \\
\uparrow \\
p(\text{FLprt } \overline{Q})(1.103.42), \\
\uparrow \\
Q
\end{array}$$

and any other possible options of self for (C.2.1.8) [18] etc.

We consider the following self-type tprFL-structures of probability:

$$\begin{array}{c}
R \\
\uparrow \\
p(\overline{P}\text{FLprt})(1.103.43), \\
\uparrow \\
\tilde{R}
\end{array}$$

$$\begin{array}{c}
strD \\
\uparrow \\
p(\overline{P} \text{ FLprt})(1.103.44), \\
\uparrow \\
\tilde{d}
\end{array}$$

denote $p(\text{FL}_9 fd; Q; D)$, $d \in D$,

$$\begin{array}{c}
d \\
\uparrow \\
p(\overline{P} \text{ FLprt})(1.103.45), \\
\uparrow \\
str\tilde{D}
\end{array}$$

denote $p(\text{FL}_{10} fD; Q; d)$, $d \in D$,

$$\begin{array}{c}
P \\
\uparrow \\
p(\overline{P}\text{FLprt})(1.103.46), \\
\uparrow \\
\widetilde{R}
\end{array}$$

and any other possible options of self for (C.2.1.10) [18] etc.

We consider the following self-type dynamic FLprt-structures of probability of the first type:

$$\begin{array}{cc}
Q(t) & \overline{Q(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)}\text{FLprt}(t) \overline{Q(t)})(1.103.47), & \\
\uparrow & \uparrow \\
\overline{Q(t)} & Q(t)
\end{array}$$

$$\begin{array}{cc}
Q(t) & \overline{A(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)}\text{FLprt}(t) \overline{Q(t)})(1.103.48), & \\
\uparrow & \uparrow \\
\overline{A(t)} & Q(t)
\end{array}$$

$$\begin{array}{cc}
B(t) & \overline{A(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)}\text{FLprt}(t) \overline{Q(t)})(1.103.49), & \\
\uparrow & \uparrow \\
\overline{A(t)} & B(t)
\end{array}$$

$$\begin{array}{cc}
A(t) & \overline{A(t)} \\
\uparrow & \uparrow \\
p(\overline{Q(t)}\text{FLprt}(t) \overline{Q(t)})(1.103.50), & \\
\uparrow & \uparrow \\
\overline{A(t)} & A(t)
\end{array}$$

$$\begin{array}{ccc}
 a(t) & & \overline{str A(t)} \\
 \uparrow & & \uparrow \\
 p(\overline{Q(t)} & FLprt(t) & \overline{Q(t)}) (1.103.51), \\
 \uparrow & & \uparrow \\
 \overline{str A(t)} & & a(t)
 \end{array}$$

denote $p(FL_{11}(t) f A(t); Q(t); a(t))$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
 str A(t) & & \overline{a(t)} \\
 \uparrow & & \uparrow \\
 p(\overline{Q(t)} & FLprt(t) & \overline{Q(t)}) (1.103.52), \\
 \uparrow & & \uparrow \\
 \overline{a(t)} & & str A(t)
 \end{array}$$

denote $p(FL_{12}(t) f a(t); Q(t); A(t))$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
 B(t) & & \overline{A(t)} \\
 \uparrow & & \uparrow \\
 p(\overline{Q(t)} & FLprt(t) & \overline{Q(t)}) (1.103.53), \\
 \uparrow & & \uparrow \\
 \overline{B(t)} & & B(t)
 \end{array}$$

and any other possible options of self for (C.2.2.1) [18] etc.

We consider the following self-type dynamic FLprt-structures of probability of the second t type:

$$\begin{array}{c}
 \overline{A(t)} \\
 \uparrow \\
 p(FLprt(t) \overline{Q(t)}) (1.103.54), \\
 \uparrow \\
 A(t)
 \end{array}$$

$$\begin{array}{c}
 \overline{str A(t)} \\
 \uparrow \\
 p(FLprt(t) \overline{Q(t)}) (1.103.55), \\
 \uparrow \\
 a(t)
 \end{array}$$

denote $p(FL_{13}(t) f A(t); Q(t); a(t)), a(t) \subset A(t)$,

$$\begin{array}{c} \overbrace{a(t)} \\ \uparrow \\ p(FLprt(t) \overline{Q(t)}) (1.103.56), \\ \uparrow \\ strA(t) \end{array}$$

denote $p(FL_{14}(t) f a(t); Q(t); A(t)), a(t) \subset A(t)$,

$$\begin{array}{c} \overbrace{A(t)} \\ \uparrow \\ p(FLprt(t) \overline{Q(t)}) (1.103.57), \\ \uparrow \\ Q(t) \end{array}$$

and any other possible options of self for (C.2.2.8) [18] etc.

We consider the following self-type dynamic tprFL-structures of probability:

$$\begin{array}{c} R(t) \\ \uparrow \\ p(\overline{P(t)} FLprt(t)) (1.103.58), \\ \uparrow \\ \overbrace{R(t)} \\ \\ strD(t) \\ \uparrow \\ p(\overline{P(t)} FLprt(t)) (1.103.59), \\ \uparrow \\ \overbrace{d(t)} \end{array}$$

denote $p(FL_{15}(t) f d(t); \overline{P(t)}; D(t)), d(t) \subset D(t)$,

$$\begin{array}{c}
d(t) \\
\uparrow \\
p(\overline{P(t)} \text{ FLprt}(t))(1.103.60), \\
\uparrow \\
\text{str} \overline{D(t)}
\end{array}$$

denote $p(FL_{16}(t) fD(t); \overline{P(t)}; d(t))$, $d(t) \subset D(t)$,

$$\begin{array}{c}
P(t) \\
\uparrow \\
p(\overline{P(t)} \text{ FLprt}(t))(1.103.61), \\
\uparrow \\
\overline{R(t)}
\end{array}$$

and any other possible options of self for (C.2.2.10) [18] etc.

New mathematical structures and operators is carried out with generalization it to any structures with any actions. For example,

$$\begin{array}{ccccccc}
f_{11} & \dots & f_{1k} & & q_{11} & \dots & q_{1n} \\
\dots & \dots & \dots & & \dots & \dots & \dots \\
1) \ p((q_{j1})^{-1} & \dots & (q_{jk})^{-1} \text{LFLprt} & \dots & & &) (*_{C.2.1}), \\
\dots & \dots & \dots & & q_{m1} & \dots & q_{mn} \\
f_{l1} & \dots & f_{lk} & & & &
\end{array}$$

f_{ij}, q_{ij} – any fuzzy objects, fuzzy actions etc.

$$\begin{array}{ccccccc}
& & g_{12} & & w_{11} & w_{12} & w_{1n} \\
g_{11} & & g_{22} & & \dots & \dots & w_{2n} \\
2) \ p((w_{j1})^{-1} & (w_{j2})^{-1} & g_{13} & \text{FLGprt} & & & \dots) (*_{C.2.2}), \\
& & \dots & & w_{m1} & w_{m2} & \dots \\
g_{31} & & g_{k2} & & & & w_{sn} \quad w_{ml}
\end{array}$$

w_{ij}, g_{ij} – any fuzzy objects, fuzzy actions etc.

$$\begin{array}{ccc}
a & b & g \\
p(c \text{ AFLrq}(\mu) & w) (*_2), \\
d & q & r
\end{array}$$

where $AFLrq$ is fuzzy virtual structure or fuzzy virtual operator, which can take any form of fuzzy action; $a, c, d, q, r, w, g, b, \mu$ – any fuzzy objects, fuzzy actions etc.

Accordingly, we can consider all sorts of self-type fuzzy structures for 1) – 3). And any other possible fuzzy structures and fuzzy operators etc.

We consider the following self-type PrSrt-structures [18] of probability

$$p\left(\begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix} \text{PrSrt} \begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix}\right),$$

$$p(\text{PrSrt} \begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix}),$$

$$p\left(\begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix} \text{PrSrt}\right),$$

$$p(\text{PrCprt} \begin{matrix} strA_1 & strA_2 & \dots & strA_n \\ strA_1 & strA_2 & \dots & strA_n \end{matrix}),$$

$$p(\text{PrCrt} \begin{matrix} strA_1 & strA_2 & \dots & strA_n \\ strA_1 & strA_2 & \dots & strA_n \end{matrix}).$$

We consider the following self-type dynamic PrSrt-structures of probability

$$p\left(\begin{matrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{matrix} \text{PrSprrt}(t) \begin{matrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{matrix}\right),$$

$$p(\text{PrSprrt}(t) \begin{matrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{matrix}),$$

$$p\left(\begin{matrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{matrix} \text{PrSprrt}(t) \right).$$

We consider the following self-type fPrSrt-structures of probability

$$p\left(\begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix} f\text{PrSrt} \begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix}\right),$$

$$p(f\text{PrSrt} \begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix}),$$

$$p\left(\begin{matrix} A_1 & A_2 & \dots & A_n \\ A_1 & A_2 & \dots & A_n \end{matrix} f\text{PrSrt}\right),$$

$$p(\text{fPrCprt}_{\text{str}A_1 \text{ str}A_2 \dots \text{str}A_n}^{\text{str}A_1 \text{ str}A_2 \dots \text{str}A_n}),$$

$$p(\text{fPrCrt}_{\text{str}A_1 \text{ str}A_2 \dots \text{str}A_n}^{\text{str}A_1 \text{ str}A_2 \dots \text{str}A_n}).$$

We consider the following self-type dynamic fPrSrt-structures of probability

$$p_{\begin{pmatrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{pmatrix} \text{fPrSprrt}(t)}^{\begin{pmatrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{pmatrix}},$$

$$p(\text{fPrSprrt}(t)_{\begin{pmatrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{pmatrix}}^{\begin{pmatrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{pmatrix}}),$$

$$p\left(\begin{pmatrix} A_1(t) & A_2(t) & \dots & A_n(t) \\ A_1(t) & A_2(t) & \dots & A_n(t) \end{pmatrix} \text{fPrSprrt}(t)\right).$$

We consider dynamic operator

$$\begin{array}{ccc} C & & \dots \\ \uparrow & & \ddot{\bar{H}} \\ \bar{P} & & \uparrow \\ \uparrow & & \overline{\overline{F}} \\ \bar{R} & & \uparrow \\ \uparrow & \text{Wprt} & \bar{A} \\ \overline{\overline{G}} & & \uparrow \\ \uparrow & & \bar{Q} \\ \bar{O} & & \uparrow \\ \dots & & B \end{array} \quad (1.103.62),$$

where $\ddot{\bar{H}}, \ddot{\bar{O}}$ - paradoxical upper levels of H and O respectively, $\overline{\overline{F}}, \overline{\overline{G}}$ - paradoxical average levels of F and G respectively, $\bar{A}, \bar{R}$ - upper levels of A and R respectively, $\bar{Q}, \bar{P}$ - average levels of Q and P respectively, B goes to the middle level of Q - $\bar{Q}$, $\bar{Q}$ goes to the upper level of A - $\bar{A}$, $\bar{A}$ goes to the paradoxical middle level of F - $\overline{\overline{F}}$, $\overline{\overline{F}}$ goes to the paradoxical upper level of H - $\ddot{\bar{H}}$, $\ddot{\bar{O}}$ goes to the paradoxical middle level of G - $\overline{\overline{G}}$, $\overline{\overline{G}}$ goes to the upper level of R - $\bar{R}$, $\bar{R}$ goes to the middle level of P - $\bar{P}$, $\bar{P}$ goes to the lower level of C simultaneously. The result of this process will be described by the expression

$$\begin{array}{c}
 C \\
 \uparrow \\
 \bar{P} \\
 \uparrow \\
 \bar{R} \\
 \uparrow \\
 \bar{G} \\
 \uparrow \\
 \bar{O}
 \end{array}
 \begin{array}{c}
 \bar{H} \\
 \uparrow \\
 \bar{F} \\
 \uparrow \\
 \bar{A} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 B
 \end{array}
 \text{Wrt } (1.103.63),$$

We consider the following self-type Wprt-structures of probability, paradoxical self-type Wprt-structures (paself-type Wprt-structures) of probability of the first type:

$$\begin{array}{c}
 Q \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q}
 \end{array}
 \begin{array}{c}
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 \bar{Q}
 \end{array}
 \text{Wprt } (1.103.64),$$

denote $p(W_1 f Q)$.

$$p(\overset{Q}{\underset{\uparrow}{W}} \text{prt} \overset{\uparrow}{\underset{\sim}{W}})(1.103.65), \text{ denote } p(W_2 f A; Q).$$

$$p(\uparrow W_{\text{prt}} \uparrow) \quad (1.103.66),$$

denote $p(W_3fH,F,A;Q;B)$.

$$p(\uparrow \text{ Wprt } \underbrace{\quad}_{\text{Q}}) (1.103.67),$$

denote $p(W_4 f A; Q)$.

denote $p(W_5 f A; Q; a)$, $a \in A$,

denote $p(W_6fa; Q; A)$, $a \in A$,

and any other possible options of self for (1.103.62) etc.

We consider the following self-type Wprt-structures of probability of the second type:

$$A \rightarrow Q \rightarrow \overline{Q} \rightarrow A$$

$$p(W_{\text{prt}} \uparrow \overline{Q} \uparrow \tilde{A} \uparrow \overline{A} \uparrow \tilde{A} \uparrow \dots) \quad (1.103.72),$$

denote $p(W_7 f A; Q; a)$, $a \in A$,

$$\begin{array}{c}
 \vdots \\
 \tilde{a} \\
 \uparrow \\
 \overline{\overline{a}} \\
 \uparrow \\
 \tilde{a} \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 strA
 \end{array}
) (1.103.73),$$

denote $p(W_8fa;Q;A)$, $a \in A$,

$$\begin{array}{c}
 \vdots \\
 \} \\
 A \\
 \uparrow \\
 \overline{\overline{A}} \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 Q
 \end{array}
 p(Wprt) \text{ (1.103.74),}$$

and any other possible options of self for (1.103.71) etc.

We consider the following self-type tprL-structures of probability:

$$\begin{array}{c}
 O \\
 \uparrow \\
 \overline{P} \\
 \uparrow \\
 \} \\
 R \\
 \uparrow \\
 \overline{O} \\
 \uparrow \\
 \} \\
 O \\
 \vdots \\
 strD \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 \} \\
 Q \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 \} \\
 d \\
 \vdots
 \end{array}
 p(Wprt) \text{ (1.103.75),}$$

$$\begin{array}{c}
 \overline{Q} \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 \} \\
 d \\
 \vdots
 \end{array}
 p(Wprt) \text{ (1.103.76),}$$

denote $p(W_9fd;Q;D)$, $d \subset D$,

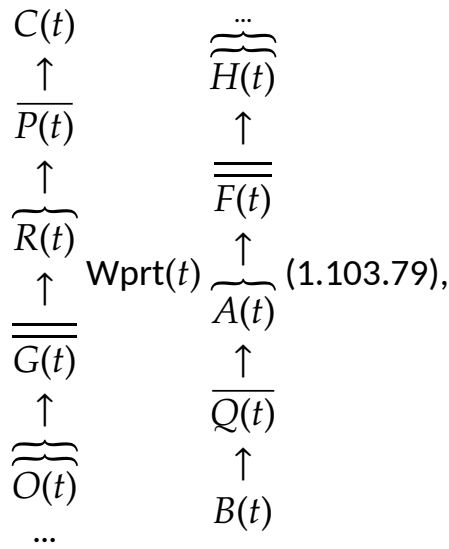
$$\begin{array}{c}
 d \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 \overbrace{Q} \\
 p(\uparrow \text{ Wprt}) (1.103.77), \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overbrace{\overline{D}} \\
 str \\
 \dots
 \end{array}$$

denote $p(W_{10}fD;Q;d)$, $d \subset D$,

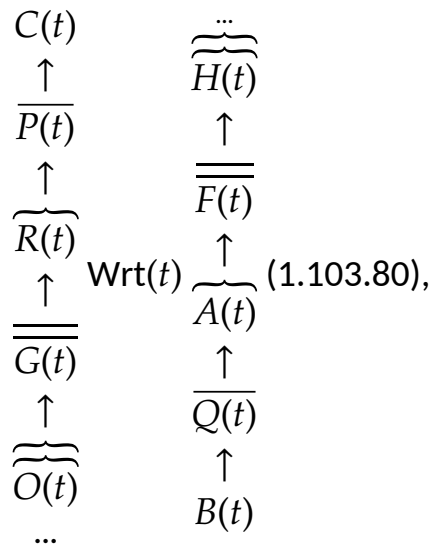
$$\begin{array}{c}
 P \\
 \uparrow \\
 \overline{P} \\
 \uparrow \\
 \overline{\overline{R}} \\
 p(\uparrow \text{ Wprt}) (1.103.78), \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overbrace{\overline{O}} \\
 \dots
 \end{array}$$

and any other possible options of self for (1.103.75) etc.

Here we consider dynamic Wprt – elements. We consider dynamic operator whose elements change over time



where $\overbrace{\overbrace{H(t)}}$, $\overbrace{\overbrace{O(t)}}$ - paradoxical upper levels of $H(t)$ and $O(t)$ respectively, $\overline{\overline{F(t)}}$, $\overline{\overline{G(t)}}$ - paradoxical average levels of $F(t)$ and $G(t)$ respectively, $\overbrace{A(t)}$, $\overbrace{R(t)}$ - upper levels of $A(t)$ and $R(t)$ respectively, $\overline{Q(t)}$, $\overline{P(t)}$ - average levels of $Q(t)$ and $P(t)$ respectively, $B(t)$ goes to the middle level of $Q(t)$ - $\overline{Q(t)}$, $\overline{Q(t)}$ goes to the upper level of $A(t)$ - $\overbrace{A(t)}$, $\overbrace{A(t)}$ goes to the paradoxical middle level of $F(t)$ - $\overline{\overline{F(t)}}$, $\overline{\overline{F(t)}}$ goes to the paradoxical upper level of $H(t)$ - $\overbrace{\overbrace{H(t)}}$, $\overbrace{\overbrace{O(t)}}$ goes to the paradoxical middle level of $G(t)$ - $\overline{\overline{G(t)}}$, $\overline{\overline{G(t)}}$ goes to the upper level of $R(t)$ - $\overbrace{R(t)}$, $\overbrace{R(t)}$ goes to the middle level of $P(t)$ - $\overline{P(t)}$, $\overline{P(t)}$ goes to the lower level of $C(t)$ simultaneously. The result of this process will be described by the expression



We consider the following self-type dynamic Wprt-structures of probability of the first type:

$$\begin{array}{c} Q(t) \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ \overbrace{Q(t)} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ \overbrace{\overbrace{Q(t)}} \\ \vdots \end{array} \text{p}(\text{Wprt}(t) \text{ }) \text{ (1.103.81),} \begin{array}{c} \overbrace{\overbrace{\overbrace{Q(t)}}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ \overbrace{Q(t)} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ Q(t) \end{array}$$

$$\begin{array}{ccc}
Q(t) & & \overbrace{A(t)}^{\dots} \\
\uparrow & & \uparrow \\
\overline{Q(t)} & & \overline{\overline{Q(t)}} \\
\uparrow & & \uparrow \\
\overbrace{Q(t)} & & \overbrace{Q(t)} \\
\uparrow & \text{Wprt}(t) & \uparrow \\
\overline{\overline{Q(t)}} & & \overline{Q(t)} \\
\uparrow & & \uparrow \\
\overbrace{A(t)} & & Q(t) \\
\vdots & &
\end{array}
\quad (1.103.82),$$

$$\begin{array}{ccc}
 B(t) & & \overbrace{Q(t)}^{\dots} \\
 \uparrow & & \uparrow \\
 \overline{Q(t)} & & \overline{\overline{Q(t)}} \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overbrace{Q(t)} \\
 \uparrow & \text{Wprt}(t) & \uparrow \\
 \overline{\overline{Q(t)}} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 \dots & & B(t)
 \end{array}
 \quad (1.103.83),$$

$$\begin{array}{ccc}
A(t) & & \overbrace{A(t)}^{\dots} \\
\uparrow & & \uparrow \\
\overline{Q(t)} & & \overline{\overline{Q(t)}} \\
\uparrow & & \uparrow \\
\overbrace{Q(t)} & & \overbrace{Q(t)} \\
\uparrow & & \uparrow \\
\overline{\overline{Q(t)}} & & \overline{Q(t)} \\
\uparrow & & \uparrow \\
\overbrace{A(t)} & & A(t) \\
\vdots & &
\end{array}
\quad p(\overbrace{Q(t)}^{\dots} \text{Wprt}(t) \overbrace{Q(t)}^{\dots}) \text{ (1.103.84),}$$

$$\begin{array}{ccc}
a(t) & & \overbrace{str A(t)}^{\dots} \\
\uparrow & & \uparrow \\
\overline{Q(t)} & & \overline{\overline{Q(t)}} \\
\uparrow & & \uparrow \\
\overbrace{Q(t)} & & \overbrace{Q(t)} \\
\uparrow & & \uparrow \\
\overline{\overline{Q(t)}} & & \overline{Q(t)} \\
\uparrow & & \uparrow \\
\overbrace{str A(t)} & & a(t) \\
\vdots & &
\end{array}
\quad p(\overbrace{Q(t)}^{\dots} \text{Wprt}(t) \overbrace{Q(t)}^{\dots}) \text{ (1.103.85),}$$

denote $p(W_{11}(t) f A(t); Q(t); a(t))$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
str A(t) & & \overbrace{a(t)}^{\dots} \\
\uparrow & & \uparrow \\
\overline{Q(t)} & & \overline{\overline{Q(t)}} \\
\uparrow & & \uparrow \\
\overbrace{Q(t)} & & \overbrace{Q(t)} \\
\uparrow & & \uparrow \\
\overline{\overline{Q(t)}} & & \overline{Q(t)} \\
\uparrow & & \uparrow \\
\overbrace{a(t)} & & str A(t) \\
\vdots & &
\end{array}
\quad p(\overbrace{Q(t)}^{\dots} \text{Wprt}(t) \overbrace{Q(t)}^{\dots}) \text{ (1.103.86),}$$

denote $p(W_{12}(t) f a(t); Q(t); A(t))$, $a(t) \subset A(t)$,

$$\begin{array}{c}
 B(t) \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 \overbrace{Q(t)} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 \overbrace{B(t)} \\
 \dots
 \end{array}
 \text{Wprt}(t)
 \begin{array}{c}
 \overbrace{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 \overbrace{A(t)} \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 B(t)
 \end{array}
) \text{ (1.103.87),}$$

and any other possible options of self for (1.103.79) etc.

We consider the following self-type dynamic Wprt-structures of probability of the second t type:

$$\begin{array}{c}
 \overbrace{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 \overbrace{Q(t)} \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 H(t)
 \end{array}
 \text{p(Wprt}(t)
) \text{ (1.103.88),}$$

$$\begin{array}{c}
 \overbrace{\overline{\overline{strA(t)}}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 \overbrace{Q(t)} \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 a(t)
 \end{array}
 \text{p(Wprt}(t)
) \text{ (1.103.89),}$$

denote $p(W_{13}(t)fa(t);Q(t);a(t)), a(t) \subset A(t)$,

$$\begin{array}{c}
 \overbrace{a(t)}^{\dots} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 p(W_{prt}(t) \overbrace{Q(t)}^{\dots}) (1.103.90), \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 strA(t)
 \end{array}$$

denote $p(W_{14}(t)fa(t);Q(t);A(t)), a(t) \subset A(t)$,

$$\begin{array}{c}
 \overbrace{Q(t)}^{\dots} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 p(W_{prt}(t) \overbrace{A(t)}^{\dots}) (1.103.91), \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 Q(t)
 \end{array}$$

and any other possible options of self for (1.103.88) etc.

We consider the following self-type dynamic tprW-structures of probability:

$$\begin{array}{c}
R(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overbrace{R(t)} \\
p(\uparrow \text{Wprt}(t)) \text{ (1.103.92),} \\
\overline{\overline{R(t)}} \\
\uparrow \\
\overbrace{R(t)} \\
\ldots \\
strD(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overbrace{P(t)} \\
p(\uparrow \text{Wprt}(t)) \text{ (1.103.93),} \\
\overline{\overline{P(t)}} \\
\uparrow \\
\overbrace{d(t)} \\
\ldots
\end{array}$$

denote $p(W_{15}(t)fd(t);\overline{P(t)};D(t)), d(t) \subset D(t)$,

$$\begin{array}{c}
d(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overbrace{D(t)} \\
p(\uparrow \text{Wprt}(t)) \text{ (1.103.94),} \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overbrace{D(t)} \\
\ldots
\end{array}$$

denote $p(W_{16}(t)fD(t);\overline{P(t)};d(t)), d(t) \subset D(t)$,

$$\begin{array}{c}
P(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overbrace{R(t)} \\
p(\uparrow Wprt(t)) (1.103.95), \\
\overline{\overline{R(t)}} \\
\uparrow \\
\overbrace{R(t)} \\
\ldots
\end{array}$$

and any other possible options of self for (1.103.92) etc.

New mathematical structures of probability and operators of probability is carried out with generalization it to any structures with any actions. For example,

$$\begin{array}{ccccccc}
f_{11} & \dots & f_{1k} & & q_{11} & \dots & q_{1n} \\
\dots & \dots & \dots & & & & \\
1) \ p((q_{j1})^{-1} & \dots & (q_{jk})^{-1} & WWprt & \dots & &)(*), \\
\dots & \dots & \dots & & q_{m1} & \dots & q_{mn} \\
f_{l1} & \dots & f_{lk} & & & &
\end{array}$$

f_{ij}, q_{ij} – any objects, actions etc.

$$\begin{array}{ccccccc}
& & g_{12} & & w_{11} & w_{12} & w_{1n} \\
g_{11} & & g_{22} & & \dots & \dots & w_{2n} \\
2) \ p((w_{j1})^{-1} & (w_{j2})^{-1} & g_{13} & WGWprt & & & \dots) (*_1), \\
& & \dots & & w_{m1} & w_{m2} & \dots \\
g_{31} & & g_{k2} & & & & w_{sn} \quad w_{ml}
\end{array}$$

w_{ij}, g_{ij} – any objects, actions etc.

3)

$$\begin{array}{ccc}
a & b & g \\
p(c \ AWWrq(\mu) \ w) (*_2), \\
d & q & r
\end{array}$$

where $AWrq$ is virtual structure or virtual operator, which can take any form of action; $a, c, d, q, r, w, g, b, \mu$ – any objects, actions etc.

Accordingly, we can consider all sorts of self-type structures of probability for 1) – 3). And any other possible structures and operators etc.

We consider expression

$$\begin{array}{cc} C & A \\ g_2 \text{SCprt} g_1 & (1.103.93), \\ D & B \end{array}$$

where A fits into B with type of accommodation g_1 , D is forced out from C with type of accommodation g_2 ; A, B, C, D, g_1 , g_2 may also be fuzzy. The result of this process will be described by the expression

$$\begin{array}{cc} C & A \\ g_2 \text{SCprt} g_1 & (1.103.94), \\ D & B \end{array}$$

We consider the following self-type **SCprt** – structures of probability:

$$\begin{array}{cc} A & A \\ p(g_2 \text{SCprt} g_1), \\ A & A \end{array}$$

$$\begin{array}{cc} A & A \\ p(g_1 \text{SCprt} g_1), \\ A & A \end{array}$$

$$\begin{array}{c} A \\ p(\text{SCprt} g_1), \\ A \end{array}$$

$$\begin{array}{c} A \\ p(g_1 \text{SCprt}). \\ A \end{array}$$

We consider the following self-type dynamic **SCprt** – structures of probability:

$$\begin{array}{cc} A(t) & A(t) \\ p(g_2(t) \text{SCprt}(t) g_1(t)), \\ A(t) & A(t) \end{array}$$

$$\begin{array}{cc} A(t) & A(t) \\ p(g_1(t)SCprt(t)g_1(t)), & \\ A(t) & A(t) \end{array}$$

$$\begin{array}{cc} & A(t) \\ p(SCprt(t)g_1(t)), & \\ & A(t) \end{array}$$

$$\begin{array}{cc} A(t) & \\ g_1(t)SCprt(t) & \\ A(t) & \end{array}$$

We consider expression

$$\begin{array}{cc} C & A \\ g_2^{SfCprt} g_1^{(1.103.95)}, & \\ \mu_2 & \mu_1 \\ D & B \end{array}$$

where A fuzzy fits into B with type of accommodation g_1 and measure of fuzziness μ_1 , D is forced out from C with type of accommodation g_2 measure of fuzziness μ_2 ; A, B, C, D, g_1 , g_2 may also be fuzzy. The result of this process will be described by the expression

$$\begin{array}{cc} C & A \\ g_2^{SfCrt} g_1^{(1.103.96)}, & \\ \mu_2 & \mu_1 \\ D & B \end{array}$$

We consider the following self-type **SfCprt** – structures of probability:

$$\begin{array}{cc} A & A \\ p(g_2^{SfCprt} g_1), & \\ \mu_2 & \mu_1 \\ A & B \end{array}$$

$$\begin{array}{cc} A & A \\ p(g_1^{SfCprt} g_1), & \\ \mu_2 & \mu_1 \\ A & B \end{array}$$

$$\begin{array}{cc} A & A \\ p(\mu_1^{g_2} \text{SfCprt} \mu_1^{g_1}), \\ A & B \end{array}$$

$$\begin{array}{cc} A & A \\ p(\mu_1^{g_1} \text{SfCprt} \mu_1^{g_1}), \\ A & B \end{array}$$

$$\begin{array}{c} A \\ p(\text{SfCprt} \mu_1^{g_1}), \\ B \end{array}$$

$$\begin{array}{c} A \\ p(\mu_2^{g_1} \text{SfCprt}). \\ A \end{array}$$

We consider the following dynamic self-type **SfCprt** – structures of probability:

$$\begin{array}{cc} A(t) & A(t) \\ p(\mu_2^{g_2(t)} \text{SfCprt}(t) \mu_1^{g_1(t)}), \\ A(t) & B(t) \end{array}$$

$$\begin{array}{cc} A(t) & A(t) \\ p(\mu_2^{g_2(t)} \text{SfCprt}(t) \mu_1^{g_1(t)}), \\ A(t) & B(t) \end{array}$$

$$\begin{array}{cc} A(t) & A(t) \\ p(\mu_2^{g_1(t)} \text{SfCprt}(t) \mu_1^{g_1(t)}), \\ A(t) & B(t) \end{array}$$

$$\begin{array}{cc} A(t) & A(t) \\ p(\mu_1^{g_2} \text{SfCprt}(t) \mu_1^{g_1}), \\ A(t) & B(t) \end{array}$$

$$\begin{array}{cc} A(t) & A(t) \\ p(\frac{g_1(t)}{\mu_1(t)} \text{SfCprt}(t) \frac{g_1(t)}{\mu_1(t)}), & \\ A(t) & B(t) \end{array}$$

$$\begin{array}{c} A(t) \\ p(\text{SfCprt}(t) \frac{g_1(t)}{\mu_1(t)}), \\ B(t) \end{array}$$

$$\begin{array}{c} A(t) \\ p(\frac{g_1(t)}{\mu_2(t)} \text{SfCprt}(t)). \\ A(t) \end{array}$$

You may consider the other dynamic self-type– structures of probability for structures in other parts of monograph.

1.9 ||| -type structures of probability

Variants of ||| Schrödinger equation: $\frac{\partial \hat{\hat{\rho}}}{\partial t} + [\hat{\hat{W}}, \hat{\hat{\rho}}] \equiv 0$

The manifestations of subtle energy: $\text{Sprt}_w^{\{q, \hat{\hat{\rho}}\}}, \text{Sprt}_w^{\{p, \hat{\hat{\rho}}\}}$, w is the elementary particle.

Remark 1.17. An ordinary equation with at least two different positions of the unknown has self-type. Self-type equation, ||| -equation have ||| -type. Here the unknown gets own self-type from self-type equation or ||| -equation.

Supplement

Types of dynamic concepts

Let us introduce some notations: stuncertainty = (self-type)-uncertainty, suncertainty = self-uncertainty, souncertainty = (self- oself)-uncertainty, scontainment = self-containment; sD = self-D, D – any, s²D = self²-D, ..., sⁿD = selfⁿ-D, f(n,s)D = f(n,self)-D, f(n,os)D = f(n,self-oself)-D, f(α,s)D, f(∞,s)D, f(s,s)D

$= f(\text{self}, \text{self})-D$, $sf(\text{os}, s)D = \text{self}(f(\text{self}-\text{oself}, \text{self})) - D$ etc. Then $\text{soconcept} = (\text{self}-\text{oself})-$ concept, $\text{soaset} = (\text{self}-\text{oself})-$ set, $f(n, \text{os})(\text{Dynamic mathematics}) = f(n, \text{self}-\text{oself})-(\text{Dynamic mathematics})$, $f(n, \text{os})(\text{Dynamic programming}) = f(n, \text{self}-\text{oself})-(\text{Dynamic programming})$, $f(n, \text{os})(\text{Dynamic program operator}) = f(n, \text{self}-\text{oself})-(\text{Dynamic program operator})$, $f(n, \text{os})(\text{Dynamic operator}) = f(n, \text{self}-\text{oself})-(\text{Dynamic operator})$, $f(n, \text{os})\text{form} = f(n, \text{self}-\text{oself})-$ form, $f(n, \text{os})\text{structure} = f(n, \text{self}-\text{oself})-$ structure, $f(n, \text{os})\text{transform} = f(n, \text{self}-\text{oself})-$ transform, $f(n, \text{os})\text{change} = f(n, \text{self}-\text{oself})-$ change etc. May use a $\text{svirtual uncertainty} = \text{self-virtual uncertainty}$, a $\text{osvirtual uncertainty} = (\text{oself}-\text{self})-$ virtual uncertainty, $s_a\text{uncertainty} = \text{self}_a\text{-uncertainty}$, $s_a\text{os}_v\text{uncertainty} = (\text{self}_a-\text{oself}_v)-\text{uncertainty}$, $s_a\text{containment} = \text{self}_a\text{-containment}$; $s_aD = \text{self}_a-D$, $D - \text{any}$, $s_a^2D = \text{self}_a^2-D$, $\dots$, $s_a^nD = \text{self}_a^n-D$, $f(n, s_a)D = f(n, \text{self}_a)-D$, $f(n, \text{os}_v, s_a)D = f(n, \text{self}_a-\text{oself}_v)-D$, $f(\alpha, s_a)D$, $f(\infty, s_a)D$, $f(s_a, s_a)D = f(\text{self}_a, \text{self}_a)-D$, $sf(\text{os}_v, s_a)D = \text{self}_a(f(\text{self}_a-\text{oself}_v, \text{self}_a))-D$, $\text{pastuncertainty} = (\text{paself-type})-\text{uncertainty}$, $\text{pasuncertainty} = \text{paself-uncertainty}$, $\text{pasouncertainty} = (\text{paself}-\text{paoself})-\text{uncertainty}$, $\text{pascontainment} = \text{paself-containment}$; $\text{pas}D = \text{paself}-D$, $D - \text{any}$, $\text{pas}^2D = \text{paself}^2-D$, $\dots$, $\text{pas}^nD = \text{paself}^n-D$, $f(n, \text{pas})D = f(n, \text{paself})-D$, $f(n, \text{paos})D = f(n, \text{paself}-\text{paoself})-D$, $f(\alpha, \text{pas})D$, $f(\infty, \text{pas})D$, $f(\text{pas}, \text{pas})D = f(\text{paself}, \text{paself})-D$, $sf(\text{paso}, \text{pas})D = \text{paself}(f(\text{paself}-\text{paoself}, \text{paself})) - D$ etc. Then $\text{pasoconcept} = (\text{paself}-\text{paoself})-$ concept, $\text{pasoset} = (\text{paself}-\text{paoself})-$ set, $f(n, \text{paos})(\text{Dynamic mathematics}) = f(n, \text{paself}-\text{paoself})-(\text{Dynamic mathematics})$, $f(n, \text{paos})(\text{Dynamic programming}) = f(n, \text{paself}-\text{paoself})-(\text{Dynamic programming})$, $f(n, \text{paos})(\text{Dynamic program operator}) = f(n, \text{paself}-\text{paoself})-(\text{Dynamic program operator})$, $f(n, \text{paos})(\text{Dynamic operator}) = f(n, \text{paself}-\text{paoself})-(\text{Dynamic operator})$, $f(n, \text{paos})\text{form} = f(n, \text{paself}-\text{paoself})-$ form, $f(n, \text{paos})\text{structure} = f(n, \text{paself}-\text{paoself})-$ structure, $f(n, \text{paos})\text{transform} = f(n, \text{paself}-\text{paoself})-$ transform, $f(n, \text{paos})\text{change} = f(n, \text{paself}-\text{paoself})-$ change etc. May use a $\text{pasvirtual uncertainty} = \text{paself-virtual uncertainty}$, a $\text{paosvirtual uncertainty} = (\text{paoself}-\text{paself})-$ virtual uncertainty, $\text{pas}_a\text{uncertainty} = \text{paself}_a\text{-uncertainty}$, $\text{pas}_a\text{os}_v\text{uncertainty} = (\text{paself}_a-\text{paoself}_v)-\text{uncertainty}$, $\text{pas}_a\text{containment} = \text{paself}_a\text{-containment}$; $\text{pas}_aD = \text{paself}_a-D$, $D - \text{any}$, $\text{pas}_a^2D = \text{paself}_a^2-D$, $\dots$, $\text{pas}_a^nD = \text{paself}_a^n-D$, $f(n, \text{pas}_a)D = f(n, \text{paself}_a)-D$, $f(n,$

$pao_v s_a)D = f(n, paself_a - paoself_v) - D$, $f(\alpha, pas_a)D$, $f(\infty, pas_a)D$, $f(pas_a, pas_a)D =$
 $f(paself_a, paself_a) - D$, $sf(paos_v, pas_a)D = paself_a(f(paself_a - paoself_v, paself_a)) - D$ etc.
 May use the uncertainties of uncertainties. Let's denote $(uncertainty)^2 =$
 uncertainties of uncertainties, $(uncertainty)^3 = \text{uncertainties of } (uncertainties)^2$, ...,
 $g(N, uncertainty) = (uncertainty)^{N+1} = \text{uncertainties of } (uncertainties)^N$ etc. May try
 to consider $g(D, uncertainty)$ for any D , $g(uncertainty, uncertainty)$ etc. We can
 work with them both normally (using regular methods) and singularly. Let's
 conventionally call the uncertainties of the 2-interpretation format (the usual
 scientific format) as 2-uncertainties. Then we can introduce the concept of B-
 uncertainties, for example, 3-uncertainty =
$$\frac{(uncertainty) - (uncertainty)}{(uncertainty)}, 4-$$

$$uncertainty = \frac{uncertainty - uncertainty}{uncertainty - uncertainty} \text{ etc.}$$

May use the next types of networks: A-networks, A – any uncertainty(in
 particular, A may be any singular), for examples, a virtual network, a virtual
 uncertainty. as soon as we begin to work with uncertainty, it ceases to be
 uncertainty and becomes certainty. All singular uncertainties

These new concepts become "keys" to further mastering knowledge about the
 world, in particular, when forming new neural networks and the next step in
 studying will be mastering them.

We construct such a singular science that will effectively work on these neural
 networks analogs of the central nervous system, it is for them that we create it.

Remark 1.18. The distribution of a random variable is nothing more than a fuzzy
 set.

The type of uncertainty: a distribution of random value x - $Sprt_{event B}^x = \begin{pmatrix} x_1|p_1 \\ x_2|p_2 \\ \dots \\ x_n|p_n \end{pmatrix}$

gives $((x|p), t)$ -energy instead usual energy: (x, t) -energy.

Remark 1.19. The usual interpretation (perception) is carried out on the process through the senses and the mind (i.e., indirectly) and gives the initial information. Naturally, some loss of knowledge occurs. Then follows the processing of what has been received, the costs of which lead to the next loss of knowledge. If we try to describe the process through its result, then it becomes necessary to bring the result to the dimension of the process (since it is clear that the dimension of the process is always greater than the dimension of the result, which enters the process as one of its last parts). That is, it is necessary to substitute a "shoulder" - the missing dimension, which is done by the theory of probability. This "shoulder" is probability. Holistic interpretation (perception) is carried out directly through the will and gives the initial information in the form of direct knowledge through integrity (intensity) without its loss and sometimes the ability to manipulate the original process and its results. But the processing of what has been received, the costs can lead to some loss of knowledge. For example, the approach of quantum mechanics differs in this from the approach of probability theory, since quantum mechanics starts from the whole process, it simply works with fuzzy coordinates and momenta.

Remark 1.20. May consider the structure: $\overset{A}{SVprt} \overset{Q}{\nabla} B$, B is action. Corresponds to

the actions of the Will.

Remark 1.21. It can be developed self-type-constructing pseudo-living energy theory, Uncertain dynamic programming, uncertain dynamic mathematics, uncertain dynamic analysis, Internal algebra of self, uncertain dynamic biology

etc. In the absolute sense, man represents uncertainty because he represents by self-type structure. For example, an insect can be used as a "match" to connect to some "living" energy fibers of our world. DNA corresponds to the dynamic operator $\{\} Sprt_a^a$ in the state of isolation from energy and dynamic operator $\begin{Bmatrix} E \\ E \end{Bmatrix} Sprt_a^a$ at energy E.

Remark 1.22. Information is the interpretation by living organisms of energies, in particular, subtle ones, through the sense organs, the cerebral cortex, entire central nervous system. The noosphere corresponds to a part of the energy space, which is and was interpreted in the information by living organisms.

Remark 1.23. May **use** Uncertain dynamic programming, self-type-constructing pseudo-living energy theory.

Remark 1.24. May consider

$$\left(\begin{array}{c} \dots \\ \text{parelf}(\nabla) \\ \text{singelf}(\nabla) \\ \text{subtle energy of } pa||| \\ \left(\begin{array}{c} \equiv \\ \nabla \end{array} \right) \\ / \\ \text{subtle energy of } |||^{-1} \\ \begin{array}{c} \nabla \\ \equiv \\ \left(\nabla \right) \\ \nabla \end{array} \\ \backslash \\ \text{subtle energy of } ||| \\ \begin{array}{c} \equiv \\ \nabla \\ \nabla \\ \left(\nabla \right) \\ \nabla \end{array} \end{array} \right) \cdot$$

May consider N-forms to create new singularities, for example, the next 4-form:

$$\begin{array}{cc} \nabla d & - & Q \\ | & & | \\ Q & - & \nabla d \end{array}.$$

Remark 1.25. self-type by control of any C, this is a double of any C. self-control is an element of control $\forall$ control and at all selfR $\in$ (by R $\forall$ of R), i. e., selfR $\in$ (by R ∞ of R).

Remark 1.26. As for formalism in Dynamic Mathematics, here we can use proof by contradiction through the corresponding direct-parallel and direct-accumulative dynamic operators not with one version of the contradiction but with many. But this can be done effectively only by neural networks - analogues of the human CNS. Although, similarly to Gödel's theorems, it is fundamentally impossible to fully formalize in the apparatus of Dynamic Mathematics, and we do not see much sense in this. In Dynamic Mathematics we use a constructive approach. The main thing is to provide a constructive mathematical apparatus for constructing and working with neural networks - analogues of the human CNS. self-type by control of any formalism, this is double of any formalism. self-type by control of any proof, this is double of any proof.

Remark 1.27. The solution of the equation $A(x,b) = 0$ (problem $Q(x,w)$) can be carried out by the following dynamic operators: $A(x,b) = 0 \quad {}^0_x Sprt^b_{A(x,b) = 0} ($

$Q(x,w) \quad {}^w_{x Sprt^{tw}_{Q(x,b)}})$ or $\overbrace{b \uparrow \downarrow x}^{A(x,b) = 0}, \overbrace{(w \uparrow \downarrow x)}^{Q(x,w)}$ upon activation of SmnSprt with $(A(x,b) = 0) ||| ((Q(x,w)) |||)$.

Remark 1.28. Using an antagonistic game in the form of paself, we obtain a master of actions (field).

Using a non-antagonistic game in the form of self, we obtain a manager.

Remark 1.29. HYPOTHALAMUS is the subject (controller) of pa. It manifests its 2- essence through the eyes and the gap in the human energy cocoon at the level below the navel. In fact, it controls the Will of a person and allows his energy body to go to the border of objectivity and further and thereby make any replacements with objects, processes, etc.

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Declarations:

Availability of data and material

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Part II. Dynamic interpretation of uncertainties such as random events

Introduction

Introduction .

Significance of the section: in a new qualitatively different approach to the study of complex random processes through new mathematical, random hierarchical, random dynamic structures, in particular those random processes that are dealt with by Synergetics.

We consider expression

$$\begin{array}{cc} C & A \\ p_2 \text{SUprt} & p_1 \end{array} \quad (*_{2.1})$$

$$\begin{array}{cc} D & B \end{array}$$

where the random $A = (a_1, a_2, \dots, a_n)$ appear into the event B with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$, $D = (d_1, d_2, \dots, d_n)$ are forced out of C with probabilities $p_2 = (p_{21}, p_{22}, \dots, p_{2n})$. In Part I we mentioned expression $(*_{2.1})$. Here we will consider it in more detail. The result of this process will be described by the expression

$$\begin{array}{cc} C & A \\ p_2 \text{SUprt} & p_1 \end{array} \quad (*_{2.2})$$

$$\begin{array}{cc} D & B \end{array}$$

If A, B, D, C are taken as sets, then we will call $(*_{2.1})$ a random dynamic set. The need $(*_{2.1})$ arose to describe processes in networks. Threshold element SUprt -

$$\begin{array}{cc} b & \{a\tilde{x}\} \\ p_2 \text{SUprt}(t) & p_1 \end{array} \quad , \quad b\text{- artificial neurons of type SUprt (designation - mnSUprt) } ,$$

$$\begin{array}{cc} \{qy\} & b \end{array}$$

$\tilde{x} = (x_1, x_2, \dots, x_n)$ is the set of values of the initial signals, $a = (a_1, a_2, \dots, a_n)$ are the weights of Sprt -synapses and $\tilde{y} = (y_1, y_2, \dots, y_n)$ is the set of values of the output signals with weights $q = (q_1, q_2, \dots, q_n)$. It can be considered a simpler version of the random dynamic random set

$$\begin{matrix} A \\ \text{SUprt } p \\ B \end{matrix} (**_{2.1})$$

where random $A = (a_1, a_2, \dots, a_n)$ appear into the event B with probabilities $p = (p_1, p_2, \dots, p_n)$, the result of this process will be described by the expression

$$\begin{matrix} A \\ \text{SUrt } p \\ B \end{matrix} (**_{2.2})$$

or

$$\begin{matrix} B \\ p \text{SUprt} \\ A \end{matrix} (**_{2.1})$$

where random $A = (a_1, a_2, \dots, a_n)$ are forced out of the event B with probabilities $p = (p_1, p_2, \dots, p_n)$, the result of this process will be described by the expression

$$\begin{matrix} B \\ p \text{SUrt} \\ A \end{matrix} (**_{2.2}).$$

We consider the measure:

$$m^{**}(\begin{matrix} b \\ p_2 \text{SUrt } p_1 \\ D \end{matrix} \begin{matrix} A \\ b \end{matrix}) = \frac{E[A] E[X] E[X]}{E[D]}, \text{ where } E[A], E[D] - \text{expected values of } A, D.$$

Remark. One can consider some generalization for $(*_{2.1}), (*_{2.2})$: $\begin{matrix} q_1(C) \\ p_2 \\ D \end{matrix} \begin{matrix} A \\ \text{SUprt } p_1 \\ q(B) \end{matrix}$,

$\begin{matrix} q_1(C) \\ p_2 \\ D \end{matrix} \begin{matrix} A \\ \text{SUprt } p_1 \\ q(B) \end{matrix}$, where A is contained into B through q , D is forced out of C

through q_1 , A, B, D, C are taken as sets. Similarly, for $(**_{2.1}), (**_{2.2})$: $\begin{matrix} A \\ p \\ \text{SUrt } p \end{matrix}$,

$\begin{matrix} A \\ p \\ \text{SUrt } p \end{matrix}$, where A is contained into B through q , for $(***_{2.1}), (**_{2.2})$:

$\begin{matrix} q(B) \\ q(B) \end{matrix}$

$\begin{matrix} q(C) \\ q(C) \end{matrix}$

$\begin{matrix} p \\ D \end{matrix} \text{SUprt}, \begin{matrix} p \\ D \end{matrix} \text{SUrt}$, where D is displaced from C through q .

Consider the compression ratios of the random dynamic set: $q_1 = \sup_{p \in B} \frac{A}{p}$ answers I

compression power of random dynamic set A, $q_2 = \sup_{p \in B} \frac{q_1}{p}$ –II compression power

of random dynamic set A, ..., $q_{n+1} = \sup_{p \in B} \frac{q_n}{p}$ –n+1 compression power of random

dynamic set A. Previously [4] - [16] the axiom of regularity (A8) [17] is removed from the axioms of set theory, so we naturally obtain the possibility of using singularities in the form of self- sets, self- elements, which is exactly what we need for new mathematical models for describing complex processes.

2.1 SUprt – elements

Definition 2.1.1. The distribution of a random variable $\tilde{x} = (x_1, x_2, \dots, x_n)$ at one point q with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$ of space X we shall call SUprt– element (designation - SUprt– element), and such a point in space is called

capacity of the SUprt– element. We shall denote $\sup_{p \in q} \frac{\tilde{x}}{p_1}$. The result of this

process we shall denote $\sup_{p \in q} \frac{\tilde{x}}{p_1}$.

Definition 2.1.2. $\sup_{p \in q} \frac{\tilde{x}}{p_1}$ —dynamic with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$ set $\tilde{x}$ at q .

Definition 2.1.3. An ordered distribution of a random variable $\vec{r}$ at one point q in space with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$: $\sup_{p \in q} \frac{\vec{r}}{p_1}$, $r = \tilde{x}$, is called an ordered SUprt– element.

It's possible to $\sup_{p \in q} \frac{\tilde{x}}{p_1}$ correspond to the distribution of a random variable $\tilde{x}$, and

to the ordered SUprt- element - a random vector, a random matrix, a random

tensor, a random directed segment in the case, when the totality of elements is understood as a set of elements in a segment.

$$\text{It's allowed to sum SUprt- elements: } \text{SUprt}_{\tilde{q}}^{\tilde{x}} p_1 + \text{SUprt}_{\tilde{q}}^{\tilde{y}} p_1 = \text{SUprt}_{\tilde{q}}^{\tilde{x} \cup \tilde{y}} p_1 .$$

These structures are more suitable for using sets for energy space, for any objects. The operator SUprt is adapted for ordinary energies, using their property to overlap.

Random capacity in itself.

Definition 2.1.4. The random capacity A in itself of the first type is the capacity random containing with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$ itself as an element.

Denote $S_1 Uf p_1 A$.

Definition 2.1.5. The capacity A in itself of the second type is the capacity that contains with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$ elements from which it can be generated. Denote $S_2 Uf p_1 A$.

An example of the capacity in itself of the first type is a set random containing itself. An example of capacity in itself of the second type is a living organism since it contains a program: DNA and RNA.

Definition 2.1.6. The partial capacity A in itself of the third type is the capacity A in itself, which partially random contains with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$ itself or random contains with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$ elements from which it can be generated in part or both. Let us denote $S_3 Uf p_1 A$.

All capacities in self-space are capacities in themselves by definition. Capacities in themselves can appear as SUrt -capacities and ordinary capacities. In these cases, the usual measures and methods of topology are used.

Connection of SUprt- elements with capacities in themselves [1].

For example, $\text{SUrt}_{\tilde{g}\{\tilde{R}\}}^{\{\tilde{R}\}} p_1$ is the capacity in itself of the second type if $\tilde{g}\{\tilde{R}\}$ is

complex of n programs capable of random generating $\{\tilde{R}\}$ with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$.

Consider a third type of capacity in itself. For example, based on $\text{SUprt } p_1$, where $\tilde{x}$
 q

$\tilde{x} = (x_1, x_2, \dots, x_n)$ i.e. n - elements at one point, we can consider the capacity

$S_3 Uf p_1$ in itself with m elements from $\tilde{x}$, $m < n$, which is formed according to the

form (1.1), that is, the structures $\text{SUprt } p_1$ contains only m elements. Form (1.1)
 q

can be generalized into the forms (1.1) - (1.4).

The energy of self- (random containment) in itself closes on itself.

Math random self [1].

Let's consider SUprt arithmetic first:

1. Simultaneous random addition of distribution of a random variable $\tilde{x} = (x_1, x_2, \dots, x_n)$ is carried out using $\text{SUprt } p$ with probabilities $p = (p_1, p_2, \dots, p_n)$
 q

$$= \text{SUprt } \frac{\{x_1 * p_1 + , x_2 * p_2 + , \dots, + x_n * p_n\}}{p} .$$

 q

2. Similarly, for simultaneous multiplication $\text{SUprt } p$: the notation of the set B
 q

with elements $b_{i_1 i_2 \dots i_n} =$

$$(\text{SUprt } \frac{\{x_{1_{i_1}} * (p_{1_{i_1}})^* , x_{2_{i_2}} * (p_{2_{i_2}})^* , \dots, x_{n_{i_n}} * (p_{n_{i_n}})^*\}}{p})_R$$

 q

for any $\{i_1, i_2, \dots, i_n\}$ without repetitions, $q = St_w^{\{K\}}$, K-set of any $\{k_1^* , k_2^* , \dots, k_n^*\}$ without repeating them, k_i -any digit, $i=1, 2, \dots, n$, $R = St_w^{\{i_1^+, i_2^+, \dots, i_n^+\}}$,
R is the index of the lower discharge (we choose an index on the scale of discharges):

Table II.1. Index on the scale of discharges

index	discharge
n	n
...	...
1	1
,	0
-1	1st digit to the right of the point
-2	2nd digit to the right of the point
...	...

$B +$

Then $\text{SUprt } p$ gives the final result of simultaneous multiplication. Any
 q

system of calculus can be chosen, in particular binary. The most straightforward functional scheme of the assumed arithmetic-logical device for Sit-multiplication:

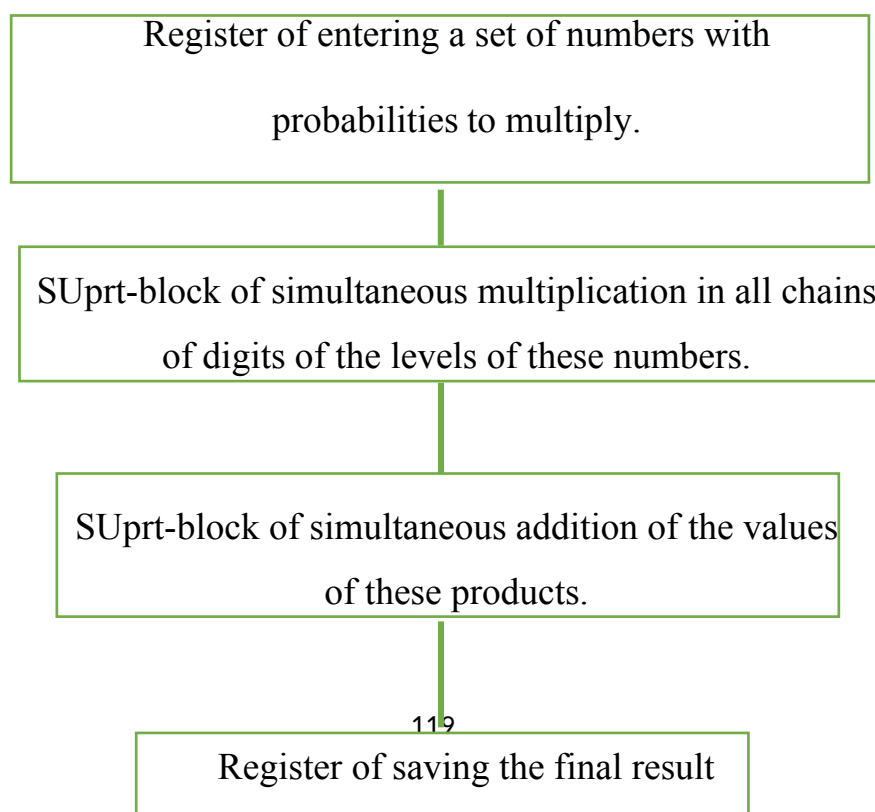


Fig. II.1. The straightforward functional scheme of the assumed arithmetical device for SUprt-multiplication.

Remark 2.1.2. The algorithm for simultaneously adding a set of numbers can also be implemented as the simultaneous addition of elements of a simultaneously formed composite matrix: a triangular matrix in which the elements of the first row are represented by multiplying the first number from the distribution of a random variable by the rest: each multiplication is represented by a matrix of multiplying the digits of 2 numbers, taking into account the bit depth, the elements of the second rows are represented by multiplying the second number from the distribution of a random variable with probabilities by the ones following it, etc.

3. Similarly for simultaneous execution of various operations: $SUprt_p^{\tilde{x}\tilde{q}}_r$, where

$\tilde{q}=(q_1, q_2, \dots, q_n)$ q_i -an operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous execution of various operators: $SUprt_p^{\tilde{F}\tilde{x}}_r$,

where $\tilde{F}=(F_1, F_2, \dots, F_n)$ F_i is an operator, $i = 1, \dots, n$.

5. The arithmetic itself for capacities in themselves will be similar: addition -

$S_1Ufp\{\tilde{x}+\}$, (or $S_3Ufp\{\tilde{x}+\}$ for the third type), multiplication

$S_1Ufp\{\tilde{x}*\}$, ($S_3Ufp\{\tilde{x}*\}$).

6. Similarly with different operations: $S_1Ufp\{\tilde{x}\tilde{q}\}$, ($S_3Ufp\{\tilde{x}\tilde{q}\}$, and with different operators: $S_1Ufp\{\tilde{F}\tilde{x}\}$, ($S_3Ufp\{\tilde{F}\tilde{x}\}$).

7. $SUrt_p^{A,B}$ – the result of the random containment operator. For

distributions of random variables A, B we have

$\text{SUrt}_p^A = \{A \cup B - A \cap B, D\}$, where D is the random self- distribution of a random variable for $A \cap B$. There is the same for structures if it's considered as distributions of a random variables.

8. SUprt - derivative of $g(x_1, x_2, \dots, x_n)$ is $\text{SUrt}_p \left\{ \frac{\partial}{\partial x_{1_i}}, \frac{\partial}{\partial x_{2_i}}, \dots, \frac{\partial}{\partial x_{k_i}} \right\}$, where $\tilde{x}_0 = (x_{1_i}, x_{2_i}, \dots, x_{k_i})$ - any set from $\tilde{x} = (x_1, x_2, \dots, x_n)$ Let's designate SUprt -

$\frac{\partial^k g(x)}{\partial x_{1_i} \partial x_{2_i} \dots \partial x_{k_i}}$. SUprt -integral off $\tilde{x} = (x_1, x_2, \dots, x_n)$ is SUprt

$\left\{ \int () dx_{1_i}, \int () dx_{2_i}, \dots, \int () dx_{k_i} \right\}_p$, where $\tilde{x}_0 = (x_{1_i}, x_{2_i}, \dots, x_{k_i})$ - any set from $g(\tilde{x})$

$\tilde{x} = (x_1, x_2, \dots, x_n)$. Let's designate SUprt - $\int \dots \int g(\tilde{x}) dx_{1_i} dx_{2_i} \dots dx_{k_i}$ - k -multiple

integral. SUprt -lim off $\tilde{x} = (x_1, x_2, \dots, x_n)$ is SUprt

$\left\{ \lim_{x_{1_i} \rightarrow a_{1_i}}, \lim_{x_{2_i} \rightarrow a_{2_i}}, \dots, \lim_{x_{k_i} \rightarrow a_{k_i}} \right\}_p$. Let's designate SUprt - $f(\tilde{x})$

$\lim_{x_{1_i} \rightarrow a_{1_i}} \lim_{x_{2_i} \rightarrow a_{2_i}} \dots \lim_{x_{k_i} \rightarrow a_{k_i}} g(x_1, x_2, \dots, x_n) \cdot \text{rself-lim}_{x \rightarrow a} = \text{SUprt}_p \lim_{x \rightarrow a} g(x)$.

9. In the case of random self- (random derivatives (designation-rderivatives)), rself is designation for random self, inclusions of multiple rderivatives are obtained. The same is true for rself - (random integrals (designation-rintegrals)): we get inclusions of multiple random rintegrals.

10. Let's denote rself -(rself - $\tilde{Q}$) through rself^2 - $\tilde{Q}$, $\text{rS}(n, \tilde{Q}) = \text{rself}$ -(rself -($\dots$ (rself - $\tilde{Q}$))) = rself^n - $\tilde{Q}$ for n -multiple random self.

rOperator itself [1].

Definition 2.1.7. An operator that transforms $\text{SUprt } p$ into any $S_i \text{Ufp} \{\tilde{b}\}$, $i = 2, 3$;
 $\tilde{q}$

where $\{\tilde{b}\} \subset \{\tilde{x}\}$; is the roperator itself, roperator is designation for random operator.

Example. The operator random contains the distribution of a random variable in itself.

rLim-itself [1].

1. rLim-Sprt, in particular, for partial limits.

For example, the double limit: $\text{rlim}_{\substack{x \rightarrow a_1 \\ y \rightarrow a_2}} \tilde{G}(x, y) | p_{\tilde{G}}$ corresponds to $\text{SUrt } p_{\tilde{G}} \cdot$.
 $(a_1 a_2)$

Similarly, for lim-SUprt with n variables.

In the case of lim-itself of SUprt, for example, for m variables, it suffices to use the forms (2.1) – (2.4), (2.1*) of lim-SUprt for n variables ($n > m$). The same is true for integrals of variables m (for example, the double integral over a rectangular region is through the double limit).

The sequence of actions can be "collapsed" into an ordered SUprt element, and then translate it, for example, into $S_1 \text{Ufp}$ - the random rcapacity in itself. Take the receipt $\frac{\partial^2 u}{\partial x^2}$ as an example. Here is the sequence of steps 1) $\frac{\partial u}{\partial x}$ à 2) $\frac{\partial}{\partial x}(\frac{\partial u}{\partial x})$.

"collapses" into an ordered SUprt $\left\{ \frac{\partial u}{\partial x}, \frac{\partial}{\partial x}(\frac{\partial u}{\partial x}) \right\}_p$, which can be translated into the
 $\tilde{q}$

corresponding $S_1 \text{Ufp}$. The differential operator $\text{SUprt} \left\{ \frac{\partial u}{\partial x}, \frac{\partial}{\partial x}(\frac{\partial u}{\partial x}) \right\}_p$ - is interesting
 $\tilde{q}$

too.

Remark 2.1.3. SUprt-displacement of A from B with probabilities p will be denote

by $p_{\text{SUprt}}^{\substack{B \\ A}}$. Then the notation $p_{2\text{SUprt}}^{\substack{C \\ D}} p_1^{\substack{A \\ B}}$ is both the SUprt-containment of A in B

with probabilities p_1 and SUprt-displacement of D from C with probabilities p_2 simultaneously.

We can consider the concept of SUprt - element as $\text{SUprt}_{p \atop B}^A$, where A random fits

with probabilities p in the capacity B. Then $\text{SUprt}_{\mu \atop B}^B$ it will mean $\text{SU}_1 f \mu B$

About SUprt and $\text{SU}_3 f$ programming.

The ideology of SUprt and $\text{SU}_3 f$ can be used for programming. Here are some of the SUprt programming operators:

1. Simultaneous random assignment of the expressions $\tilde{r}=(r_1, r_2, \dots, r_n)$ to the

variables $\tilde{x}=(x_1, x_2, \dots, x_n)$. This is implemented via $\text{SUprt}_{p \atop q}^{\{\{\tilde{x}\} := \{\tilde{r}\}\}}$.

2. Simultaneous checking the set of conditions $\tilde{g}=(g_1, g_2, \dots, g_n)$ for the distribution of a random expression $\tilde{B}=(B_1|\mu_{\tilde{B}}(B_1), B_2|\mu_{\tilde{B}}(B_2)|, \dots, x_n|\mu_{\tilde{B}}(B_n))$

Implemented via $\text{SUprt}_{p \atop q}^{IF\{\{\tilde{B}\}|\{\tilde{g}\}\} \text{ then } \tilde{Q}}$, where $\tilde{Q}$ can be anything.

3. Similarly for loop operators and others.

$\text{SU}_3 f p$ — random software operators will differ only in that the aggregates

$\{\tilde{x}\}, \{\tilde{p}\}, \{\tilde{B}\}, \{\tilde{g}\}$ will be formed from the corresponding SUprt program operators in form (2.1) or forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*) for more complex operators.

The OS (operating system), the computer's principles, and the modes of operation for this programming are interesting. But this is already the material for the following publications.

Using elements of the mathematics of SUprt we introduce the concept of

SUprt—change in physical random quantity $\tilde{B}$: $\text{SUprt}_{p \atop q}^{\{\Delta_1 \tilde{B}, \dots, \Delta_n \tilde{B}\}}$. Then the

mean SUprt- velocity will be $\tilde{v}_{cpSUt}(t, \Delta t) = \text{SUprt} \left\{ \frac{\Delta_1 \tilde{B}}{\Delta t}, \dots, \frac{\Delta_n \tilde{B}}{\Delta t} \right\}_{p,q}$. and SUprt-velocity

at time t: $\tilde{v}_{SUprt} = \lim_{\Delta t \rightarrow 0} \tilde{v}_{cpSUt}(t, \Delta t)$. SUprt- acceleration $a_{sut} = \frac{d\tilde{v}_{SUprt}}{dt}$.

When using SUprt with "target weights", we get, depending on the "target weights", one or another modification, namely, for example, the velocity $\tilde{v}_{SUprt}^g$ (with a "target weight" f in the case when two random velocities $\tilde{v}_1, \tilde{v}_2$ are involved in the distribution of a random $\{\tilde{v}_1 g, \tilde{v}_2\}$ for $\tilde{v}_{SUprt}^g = \text{SUprt} \left\{ \tilde{v}_1 g, \tilde{v}_2 \right\}_{p,x}^g$ - instantaneous replacement we get an instantaneous substitution $\tilde{v}_1$ by $\tilde{v}_2$ at point x of space at time t_0 .

Consider, in particular, some examples: 1) $\text{SUprt} \left\{ \tilde{v}_1 g, \tilde{v}_2 \right\}_{p,x}^e$ describes the random presence of the same electron e at two different random points $\{x_1, x_2\}$. 2) The nuclei of atoms can be considered as SUrt elements.

Similarly, the concepts of SUprt- force and SUprt- energy, for example, $E_{pSUprt}^g = \text{SUprt} \left\{ E_1 g, E_2 \right\}_{p,x}$ it would mean the instantaneous random replacement of random energy E_1 by E_2 at time t_0 . Two aspects of SUprt-energy should be distinguished: 1) carrying out the desired "target weight" and 2) fixing the result of it. Do not confuse energy - SUrt (the node of energies) with SUprt- energy that generates the node of energies, usually with the "target weights." In the case of ordinary energies, the energy node is carried out automatically.

Remark 2.1.4. SUprt- elements are all ordinary, but with "target weights," they become peculiar. Here you need the necessary energy to carry them out. As a rule, this energy is at the level of Rself. This is natural since it's much easier to manage elements of the k level via the elements of a more structured $k+1$ level. Let us

consider the concepts of capacities of physical objects in themselves. The question arises about the rself-energy of the object. In particular, according to the results of the publication [4] - [16]: « St_B^B will mean S₁f B.» For example, St_{DNA}^{DNA} allows you to reach the level of DNA self-energy, St_Q^Q allows you to reach the level of self-energy Q. The law of rself-energy conservation operates already at the level of rself-energy. Also, in addition to capacities in themselves, you can consider the types of random containment of oneself in oneself: the first type of the random containment of oneself in oneself: the second type of the random containment of oneself in oneself: potentially, for example, in the form of programming oneself, the third type is partial random containment of oneself in themselves—for example, rself-operator, rself-action, whirlwind. A container random containing itself can be formed by rself-containment, i.e., random containment in oneself. Let us clarify the concept of the term random rcapacity in itself: it is a random rcapacity containing itself potentially. Consider rself-Q, where Q can be anything, including Q=rself; in particular, it can be any action. Therefore, rself-Q is when Q is random made by itself; it makes itself. There is a partial rself-Q for any Q with partial rself-fulfillment. Let's consider several examples for capacities in themselves: ordinary lightning, electric arc discharge, and ball lightning.

A rself-search of the solution of the equations $\widetilde{f_i(\tilde{x})}=0$, where $i=1,2, \dots, n$, $\tilde{x}=(x_1, x_2, \dots, x_n)$. will be realized in $SU_{prt}^{\left\{ \begin{matrix} f_1(\tilde{x})=0? \tilde{x} \\ p \\ a \end{matrix} \right\}, f_2(\tilde{x})=0? \tilde{x}, \dots, f_n(\tilde{x})=0? \tilde{x}} \}$ or

$$SU_{prt}^{\left\{ \begin{matrix} f_1(\tilde{x})=0, f_2(\tilde{x})=0, \dots, f_n(\tilde{x})=0 \\ p \\ ? \tilde{x} \end{matrix} \right\}}$$

$\tilde{x}$ acquires more degree of liberty and in this is direct decision. Rself-equation for $\tilde{x}$ has its decision for $\tilde{x}$ in direct kind.

The same for $SU_{prt}^{\left\{ \begin{matrix} tasks \tilde{x} \\ p \\ ? \tilde{x} \end{matrix} \right\}}$.

Rself-task for x has its decision for x in direct kind. Rself-question has its answer for $\tilde{x}$ in direct kind. $Sprt_{(\tilde{o}, \tilde{x})}^{\{t\}}$, where $\{t\}$ - time points set, $(\tilde{o}, \tilde{x})$ - object $\tilde{o}$ in point $\tilde{x}$ from space X , give to enter in necessary time moments. The same for $Sprt_{\tilde{o}}^{\{t\}}$. $Sprt^{\{God-father, God-son, Holy Spirit\}}$ is three-concept representation, where $\mathbf{a}$ is a point in the connectedness space. $SUprt$ is also great for working with random structures,

for example: 1) $SUprt_{\tilde{B}}^{\{strA\}}$ - the random structure A that random fits into $\tilde{B}$, where

$\tilde{B}$ can be any random capacity, another random structure etc. 2) $SUprt_{\tilde{R}}^{\{str_Q\}}$ -

random embedding random structure from Q into $\tilde{R}$. Similarly for random

displacement: 1) $\tilde{B}$
 $\underset{strA}{p} SUprt$ -displacement of random structure A from $\tilde{B}$, 2)

$\tilde{B}$
 $\underset{str_Q}{p} SUprt$ -displacement of the random structure Q from $\tilde{B}$. To work with random

structures, you can introduce a special operator $CUprt$: $CUprt_{\tilde{B}}^{\{strA\}}$ - structures $\tilde{B}$

with the random structure A , $CUprt_{\tilde{R}}^{\{str_Q\}}$ - random structures $\tilde{R}$ with the random

structure from Q , $\tilde{B}$
 $\underset{strA}{p} CUprt$ destructors $\tilde{B}$ from the random structure A , $\tilde{B}$
 $\underset{str_Q}{p} CUprt$

destructors $\tilde{B}$ from the random structure that random structures Q .

Definition 2.1.8. A random structure with a second degree of freedom will be called random complete, i.e., "capable" of reversing itself concerning any of its elements explicitly, but not necessarily in known operators; it can form (create) new special foperators (in particular, special random functions).

In particular, $\frac{\{\widetilde{str}A\}}{\underline{CUprt} \quad p \quad \{\widetilde{str}A\}}$ is such structure.

Similarly, for working with models, each is structured by its structure; for example, use $SUprt$ -groups, $SUprt$ -rings, $SUprt$ -fields, $SUprt$ -spaces, $rself$ -fgroups, $rself$ -frings, $rself$ -ffields, and $rself$ -fspaces. Like any task, this is also a random structure of the appropriate random capacity.

$Rself$ -H ($rself$ -hydrogen), like other $rself$ -particles, does not exist in the ordinary, but all $rself$ -molecules, $rself$ -atoms, and $rself$ -particles are elements of the random energy space.

Remark 2.1.5. The concept of elements of physics $SUprt$ is introduced for energy space. The corresponding concept of elements of chemistry $SUrt$ is introduced

accordingly. Examples: 1) $E_{ffsprt}^g = SUprt \frac{\{a_1g, a_2\}}{p \quad x}$ the energy of instantaneous

substitution a_1 by a_2 , where a_1 , and a_2 are chemical elements, g is instant replacement. Similarly,

$SUprt \frac{\{\text{chemical elements with "tone can consider for the node of chemical reactions } SUprt \text{ target weights"}\}}{p \quad \text{reaction}}$. The

periodic table itself can also be thought of as the $SUrt$ – element:

$SUrt \frac{\{\text{list of chemical elements}\}}{\text{Mendeleev table}}$ The ideology of $SUprt$ elements allows us to go to the border of the world familiar to us, which allows us to act more effectively.

2.2 Dynamic $SUprt$ – elements

We considered stationary $SUprt$ – elements earlier. Here we consider dynamic random $Sprt$ – elements (designation - $dSUprt$) [1].

Definition 2.2.1. The distribution of a random variable of process of fitting

$x(\widetilde{t})=(x_1(t), x_2(t), ..., x_n(t))$ into one point $q(t)$ of space X at time t will be called a

dynamic $SUprt$ – element ($dSUprt$). We will denote $SUprt(t) \frac{x(\widetilde{t})}{p(t) \quad q(t)}$.

It is allowed to sum dynamic SUPrt– elements:

$$\text{SUPrt}(t)_{p(t)} \begin{matrix} a(t) \\ q(t) \end{matrix} + \text{SUPrt}(t)_{p(t)} \begin{matrix} b(t) \\ q(t) \end{matrix} = \text{SUPrt}(t)_{p(t)} \begin{matrix} a(t) \cup b(t) \\ q(t) \end{matrix}$$

Dynamic random containment of oneself.

Definition 2.2.2. The dynamic random capacity Q(t) is random fitting into Q(t).

Definition 2.2.3. Dynamic SUPrt-capacity $ffSt(t)_{Q(t)}^{R(t)}$ is the process of random embedding R(t) into Q(t).

Definition 2.2.4. The dynamic random capacity A(t) random containing itself as an element of the first type is the process of random containing A(t) in A(t).

Denote $S_1 Uf(t)A(t)$.

Definition 2.2.5. Random dynamic capacity C(t) in itself of the second type is the process of random containing elements from which it can be generated. Let's denote $S_2 Uf(t)C(t)$.

Definition 2.2.6. The dynamic partial random capacity B(t) in itself of the third type is a process of partial random containment of B(t) in itself or elements from which it can be generated partially or both at the same time. Denote $S_3 Uf(t)B(t)$.

All dynamic random capacities in themselves in a dynamic rself-space are, by definition, capacities in themselves. Dynamic random capacity itself can manifest itself as dynamic SUPrt-capacity and ordinary dynamic random capacity. In these cases, the usual measures and methods of topology are used.

Connection of random dynamic SUPrt– elements with dynamic random containment of oneself.

Consider third type of dynamic partial random containment of oneself. For

example, based on $\text{SUPrt}(t)_{p(t)} \begin{matrix} x(t) \\ q(t) \end{matrix}$, where $x(t)=(x_1(t), x_2(t), \dots, x_n(t))$, i.e. n –

elements at one point q(t), we can consider the dynamic random capacity in itself

$S_3 Uf(t)$ with m elements from $\widetilde{x(t)}$, $m < n$, which is process formed according to the form (2.1), that is, only m elements from $\widetilde{x(t)}$ are in the structure $SUprt(t) \begin{matrix} \widetilde{x(t)} \\ p(t) \\ q(t) \end{matrix}$.

Dynamic random containment of oneself of the third type can be formed for any other structure, not necessarily $SUprt$, only through the obligatory reduction in the number of elements in the structure. In particular, using the forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) – (2.4) by type (2.1*). It is possible to introduce structures more complex than $S_3 Uf(t)$.

The dynamic math random itself.

1. The process of simultaneous random addition of a set of elements $\widetilde{x(t)}$ =

$$(x_1(t), x_2(t), \dots, x_n(t)) \text{ is realized by } SUprt(t) \begin{matrix} \widetilde{x(t)} + \\ p(t) \\ w(t) \end{matrix}.$$

2. By analogy, for simultaneous multiplication: $SUprt(t) \begin{matrix} \widetilde{x(t)} * \\ p(t) \\ w(t) \end{matrix}$

3. Similarly for simultaneous execution of various random operations:

$$SUprt(t) \begin{matrix} \widetilde{x(t)} \widetilde{q(t)} \\ p(t) \\ w(t) \end{matrix}, \text{ where } \widetilde{q(t)} = (q_1(t), q_2(t), \dots, q_n(t)), q_i(t) - \text{a random}$$

operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous execution of various random operators:

$$SUprt(t) \begin{matrix} \widetilde{F(t)} \widetilde{x(t)} \\ \mu(t) \\ w(t) \end{matrix} \text{ where } \widetilde{F(t)} = (F_1(t), F_2(t), \dots, F_n(t)), F_i(t) \text{ is a random operator, } i =$$

$1, \dots, n$.

5. Dynamic arithmetic random itself for containments of oneself will be similar: dynamic addition - $S_1 Uf(t)p(t) \{ \widetilde{x(t)} + \}$, (or $S_3 Uf(t)p(t) \{ \widetilde{x(t)} + \}$ for the third type), dynamic multiplication $S_1 Uf(t)p(t) \{ \widetilde{x(t)} * \}$, (or $S_3 Uf(t)p(t) \{ \widetilde{x(t)} * \}$

6. Similarly with different random operations: $S_1 Uf(t)p(t)\{x(t)q(t)\}$, (or $S_3 Uf(t)p(t)\{x(t)q(t)\}$) and with different random operators: $S_1 Uf(t)p(t)\{F(t)x(t)\}$, (or $S_3 Uf(t)p(t)\{F(t)x(t)\}$).

7. $\text{SUprt}(t) \frac{A(t)}{B(t)} p(t)$ gives the result

$$\text{SUrt}(t) \frac{A(t)}{B(t)} p(t) =$$

$$\{A(t) \cup B(t) - A(t) \cap$$

$B(t), D(t)\}$ for distributions of a random variables $A(t), B(t)$, where $D(t)$ is rself- (distribution of a random variable) for $A(t) \cap B(t)$. The same is true for structures if they are treated as distributions of a random variables.

8. Similarly, for dynamic SUprt-derivatives, dynamic SUprt-integrals, dynamic SUprt-lim, dynamic rself-derivatives, dynamic rself-integrals.
9. Denote dynamic rself-(dynamic rself-Q(t)) through dynamic rself²-Q(t), $\text{rgS}(t)(n, Q(t)) = \text{dynamic rself-}(\text{dynamic rself-}(\dots(\text{dynamic rself-Q}(t)))) = \text{dynamic rself}^n\text{-Q}(t)$ for n-multiple dynamic rself.

Remark 2.2.1. The dynamic SUprt-displacement of A(t) from B(t) will be denote

by $\frac{B(t)}{A(t)} \text{SUprt}(t) \frac{C(t)}{D(t)} \frac{A(t)}{B(t)} p_2(t) \text{SUprt}(t) p_1(t)$. Then the notation is dynamic SUprt-containment

of A(t) in B(t) and dynamic SUprt-displacement of D(t) from C(t) simultaneously.

We can consider the concept of dynamic SUprt- element as $\text{SUprt}(t) \frac{A(t)}{B(t)} p(t)$, where

$\frac{A(t)}{B(t)}$ fits in dynamic random capacity $\frac{B(t)}{B(t)}$. Then $\text{SUprt}(t) \frac{A(t)}{B(t)} p(t)$ will mean $\text{SU}_1 f(t)$

$\widetilde{B}(t)$. $\frac{A(t)}{p} \text{SUprt}(t)$ denotes the random dynamic expelling random $A(t)$ oneself out
 $A(t)$
 of oneself, $\frac{A(t)}{p_2(t)\text{SUprt}(t)p_1(t)} \frac{A(t)}{A(t)}$ —simultaneous random dynamic containment random
 $A(t)$ of oneself in oneself and random dynamic expelling random $A(t)$ oneself out
 $A(t)$
 of oneself. $\frac{p(t)}{A(t)} \text{SUprt}(t)$ will be called random dynamic anti- (random capacity)

from oneself. For example, “white hole” in physics is such simple anti-(random capacity). The concepts of “white hole” and “black hole” were formulated by the physicists based on the subject of physics –the usual energies level. Mathematics allows you to deeply find and formulate the concept of singular points in the Universe based on the levels of more subtle energies. The experiments of the 2022 Nobel laureates Asle Ahlen, John Clauser, Anton Zeilinger correspond to the concept of the Universe as a capacity in itself. The energy of rself-containment in itself is closed on itself.

Hypothesis: the containment of the galaxy in oneself as a spiral curl and the expelling out of oneself defines its existence. A rself- capacity in itself as an element A is the god of A, the rself-capacity in itself as an element the globe—the god of the globe, the rself-capacity in itself as an element man-- the god of the man, the rself-capacity in itself as an element of the universe-- the god of the universe, the containment of A into oneself is spirit of A, the containment of the Earth into oneself is spirit of Earth, the containment of the man into oneself is spirit of the man (soul), the containment of the universe into oneself is spirit of the universe. We may consider the following axiom: any random capacity is the random capacity of oneself. This is for each energy random capacity.

Remark 2.2.2. With the help of random dynamic SUprt-elements, the concepts of random dynamic SUprt- force, random dynamic SUprt– energy are

introduced. For example $rE(t)_{\mu(t)} = \text{SUprt}(t)_{prst}^{\tilde{g}} \frac{\{rE_1(t)\tilde{g}, rE_2(t)\}}{p(t) \tilde{w}(t)}$. will mean the

process of instantaneous replacement $\tilde{g}$ of energy $rE_1(t)$ by $rE_2(t)$ at time t .

Similarly, using $S_i Uf(t)_{\mu(t)}$, the concepts of $\text{SU}_i f(t)_{p(t)}$ -force, $\text{SU}_i f(t)_{p(t)}$ -energy, $i=1,2,3$, and etc are introduced.

Remark 2.2.3. It is the random containment of oneself in oneself that can “give birth” to the rcapacities in itself – that is what rself-organization is.

Remark 2.2.4. $\text{SUprt}(t)_{p(t)}^{\tilde{B}(t)}$ can increase rself- level of $\tilde{B}(t)$.

Remark 2.2.5. For example, the roperator itself is $\text{SU}_1 f(t)_{p(t)}$.

Remark 2.2.6. May be considered the following derivatives: $\frac{d \text{SUprt}(t)_{p(t)}^{\tilde{A}(t)}}{dt} \frac{\tilde{B}(t)}{dt}$,

$\frac{d \text{SUprt}(t)_{p(t)}^{\tilde{B}(t)}}{dt} \frac{C(t)}{dt} \frac{A(t)}{dt}$, $\frac{d \text{SUprt}(t)_{p(t)}^{\tilde{C}(t)}}{dt} \frac{B(t)}{dt}$, $\frac{d \text{SUprt}(t)_{p(t)}^{\tilde{A}(t)}}{dt} \frac{D(t)}{dt}$, $i=1,2,3$.

Remark 2.2.7. It is the random containment of oneself in itself as a random element that can be interpreted as random dynamic random capacities in itself.

Remark 2.2.8. Not every random capacity random containing itself as an element will manifest itself as a sedentary random capacity or random capacity.

About random dynamic SUprt and $\text{SU}_3 f(t)$ programming [1].

The ideology of random dynamic SUprt and $\text{SU}_3 f(t)$ can be used for programming:

1. The process of simultaneous random assignment of the expression $s \tilde{p}(t) = (p_1(t), p_2(t), \dots, p_n(t))$ to the variables $\tilde{x}(t) = (x_1(t), x_2(t), \dots, x_n(t))$.

This is implemented via $\text{SUprt}(t) \begin{matrix} \{\{\tilde{x}(t)\} \\\tilde{p}(t)\} \\ \tilde{w}(t) \end{matrix} := \{\{\tilde{p}(t)\}\}$.

2. The process of simultaneous random checking the set of conditions $\tilde{g}(t) = (g_1(t), g_2(t), \dots, g_n(t))$ for the set of expressions $\tilde{B}(t) = (B_1(t), B_2(t), \dots, B_n(t))$. Implemented via

$\text{SUprt}(t) \begin{matrix} IF \{\{\tilde{B}(t)\} \\\tilde{g}(t)\} \\ \tilde{w}(t) \end{matrix} \text{ then } \tilde{Q}(t)$, where $\tilde{Q}(t)$ can be anything.

3. Similarly for random loop operators and others.

$f f S_3 f(t) p(t)$ – random fsoftware operators will differ only just because aggregates $\tilde{x}(t), \tilde{p}(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding processes by SUprt-program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

2.3 SUprt – elements for continual random sets

Earlier, we considered finite-dimensional discrete SUprt-elements and rself- (random capacities) in itself as an element. Here we believe some continual SUprt-elements and continual rself- (random capacities) in themselves as an element [1].

Definition 2.3.1. The random set of continual elements $\tilde{x} = (x_1, x_2, \dots, x_n)$ at one point w of space X with probabilities $p = (p_1, p_2, \dots, p_n)$ will be called continual SUprt – element, and such a point in space will be called random capacity of the continual

$\tilde{x}$
SUprt – element. We will denote $\text{SUprt} \begin{matrix} \tilde{x} \\ p \\ w \end{matrix}$.

Definition 2.3.2. An ordered random set of continual elements at one point in space with probabilities $p = (p_1, p_2, \dots, p_n)$ is called an ordered continual SUprt–element.

It's allowed to sum continual SUprt – elements: $\text{SUprt}_{\tilde{w}}^{\tilde{x}} p + \text{SUprt}_{\tilde{w}}^{\tilde{r}} p =$

$\text{SUprt}_{\tilde{w}}^{\tilde{x} \cup \tilde{r}} p$, where some or any elements may be ordered elements.

Definition 2.3.3. The continual rself- (random capacity) A in itself as an element of the first type is the random capacity containing itself as an element. Denote $S_1 Uf A$.

Definition 2.3.4. The ordered continual rself-capacity A in itself as an element of the first type is the ordered random capacity containing itself as an element. Denote $\overrightarrow{S_1 Uf A p}$.

For example, $rS_{\infty}^{+} = (\sin^{\infty} | p)$ is of this type. It denotes continual ordered rself- (random capacities) in itself as an element of following type—the random range of simultaneous “activation” of random numbers from $[-1, 1]$ in mutual directions: $\uparrow I \downarrow_{-1}^1$. Also consider the following elements: $rS_{\infty}^{-} = (\sin^{-\infty} | p) - \downarrow I \uparrow_{-1}^1$, $rT_{\infty}^{+} = (\text{tg}^{\infty} | p) - \uparrow I \downarrow_{-\infty}^{\infty}$, $rT_{\infty}^{-} = (\text{tg}^{-\infty} | p) - \downarrow I \uparrow_{-\infty}^{\infty}$, don't confuse with values of these functions. Such elements can be summarized. For example: $a rS_{\infty}^{+} + b rS_{\infty}^{-} = (a - b) rS_{\infty}^{+} = (b - a) rS_{\infty}^{-}$, if rS_{∞}^{+} and rS_{∞}^{-} have the same random structure of the random range from $[-1, 1]$.

Definition 2.3.5. The continual rself-capacity A in itself, as an element of the second type, is the random capacity containing random elements from which it can be generated. Let's denote $S_2 Uf A p$.

An example of continual rself-capacity in itself as an element of the second type is a living organism since it contains the programs: DNA and RNA.

Definition 2.3.6. Partial continual rself- capacity A in itself as an element of the third type is called continual rself-capacity in itself as an element that partially contains itself or contains random elements from which it can be generated in part or both simultaneously. Denote $S_3 f A p$.

Also, may be considered operators for them. For example:

$$gS_{\infty}^+(t-t_0) = \begin{cases} fS_{\infty}^+, t = t_0 \\ 0, t \neq t_0 \end{cases}$$

You can set the rself- vector: $\uparrow \begin{pmatrix} q|p_1 \\ d|p_2 \\ c|p_3 \end{pmatrix} \downarrow$

All continual capacities in rself-space are continual rself-capacities in itself as an element by definition. The continual rself-capacities in itself as an element may appear as continual SUprt- capacities and usual continual capacities. In these cases, there are used typical measure and topology methods.

The connection of continual SUprt – elements with continual rself- capacities in themselves as an element.

Consider a third type of continual rself-capacity in itself as an element. For

example, based on $\text{SUprt } \tilde{x} p$, where $\tilde{x}=(x_1, x_2, \dots, x_n)$, i.e. x_i - continual elements at w

one point, $i=1, 2, \dots, n$. The continual rself- capacity in itself as an element with m continual elements from $\tilde{x}$, at $m < n$, can be considered as $S_3 Uf$, which is formed by

the form (2.1), i.e., only m continual elements are located in the structure $\text{SUprt } \tilde{x} p$. w

Continual rself-capacities in itself as an element of the third type can be formed for any other structure, not necessarily random SUprt, only by obligatory reducing the number of continual elements in the structure. In particular, using the forms (2.1.1) – (2.4). Structures more complex than $S_3 Uf$ can be introduced.

Mathematics random itself for continual SUprt-elements [1].

1. Simultaneous addition of the continual elements of the random set $\tilde{x}=(x_1,$

$x_2, \dots, x_n)$ is implemented using $\text{SUprt } \tilde{x} \cup p$. w

2. By analogy, for simultaneous multiplication: $\text{SUprt } \tilde{x} \cap p$. w

3. Similarly, for simultaneous execution of various operations: $\text{SUprt}_{\tilde{q}}^{\tilde{x}}$, where

$\tilde{q}=(q_1, q_2, \dots, q_n)$, q_i -an operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous execution of various operators: $\text{SUprt}_{\tilde{w}}^{\tilde{F}\tilde{x}}$,

where $\tilde{F}=(F_1, F_2, \dots, F_n)$, F_i is an operator, $i = 1, \dots, n$.

5. For continual rself-capacities in themself as an element will be similar: addition - $S_1Ufp\{\tilde{x}+\}$, (or $S_3f\tilde{p}\{\tilde{x}+\}$ for the third type), multiplication $S_1Ufp\{\tilde{x}*\}$, (or $S_3Ufp\{\tilde{x}*\}$).

6. Similarly with different operations: $S_1Ufp\{\tilde{x}\tilde{q}\}$, $(S_3Ufp\{\tilde{x}\tilde{q}\})$, and with different operators: $S_1Ufp\{\tilde{F}\tilde{x}\}$, $(S_3Ufp\{\tilde{F}\tilde{x}\})$.

7. $\text{SUrt}_{\frac{A}{B}}^{\frac{A}{B}}$ – is the result of the random containment operator. For random sets

A, B we have

$\text{SUrt}_{\frac{A}{B}}^{\frac{A}{B}} = \{A \cup B - A \cap B, D\}$, where D is rself- set for $A \cap B$. The same is true for structures if they are treated as random sets.

Remark 2.3.1. SUprt -displacement of A from B with probabilities $p = (p_1, p_2, \dots,$

$p_n)$ will be denoted by $\text{SUprt}_{\frac{B}{A}}^{\frac{B}{A}}$. Then the notation $\text{SUprt}_{\frac{C}{D}}^{\frac{C}{D}} \text{SUprt}_{\frac{A}{B}}^{\frac{A}{B}}$ is SUprt -containment of

A in B with probabilities $p_1 = (p_{11}, p_{12}, \dots, p_{1n})$, and SUprt -displacement of D from C with probabilities $p_2 = (p_{21}, p_{22}, \dots, p_{2n})$, simultaneously. Three in one is

$\text{Sprt}_{\alpha}^{\{\infty \text{ in itself, an element that is not anyone's element, } 0 \text{ out oneself}\}}$, $\mathbf{a}$ - point space

connectedness. We can consider the concept of a continual random SUprt -

element as $\text{SUprt}_{\frac{B}{A}}^{\frac{A}{A}}$, where A fits with probabilities $p = (p_1, p_2, \dots, p_n)$ in continual

random capacity B . Then $\text{SUprt}_{\frac{B}{B}}^{\frac{B}{B}}$ will mean SU_1fpB .

These elements are used for SUprt-coding, SUprt-translation, random coding rself, and random translation rself for networks, which is suitable for electric current of ultrahigh frequency. More complex elements can be considered as continual sets of numbers with their " activation " in mutual directions. For example, ranges of function values, particularly those representing the shape of lightning. Differential geometry can be applied here. Also, n-dimensional elements can be considered. The space of such elements is Banach space if we introduce the usual norm for functions or vectors. We call this space - rSelb-space. Then we introduce the scalar product for functions or vectors and get the Hilbert space. We call this space rSelh-space. In particular, one can try to describe some processes with these elements by differential equations and use methods from [18]. You can also try to optimize and research some processes with these elements using the techniques from [19]. Let's introduce operators for transforming random capacity to rself- capacity in itself as an element: $rQ_1Sfp(A)$ transforms A to

$$S_1UfpA, rQ_0S(A) \text{ transforms } A \text{ to } \underset{A}{\overset{A}{p}}_{SUprt}, rSOfp(A) \text{ transforms } A \text{ to } \uparrow rA \downarrow, \uparrow$$

$rA \downarrow$ -- ordered rself-capacity in itself as an element of simultaneous "activation" of all elements of A in mutual directions. For example, $rSOfp([-1,1]) = rS_{\infty}^+$, $rSOfp([1,-1]) = rS_{\infty}^-$, $rSOfp([-\infty,\infty]) = rT_{\infty}^+$, $rSOfp([\infty,-\infty]) = rT_{\infty}^-$. The operator $(rQ_1Sfp(A))^2$ increases rself- level for A: it transforms rself-A= S_1UfpA to rself²-A, $(fQ_1Sf\mu(A))^n \rightarrow rself^n-A, e^{rQ_1Sfp(A)} \rightarrow e^{rself} - A$. Let us introduce the following

$$\text{notations: } \underset{(A,A)}{\overset{A}{p}}_{SUprt} \text{ by } 2rpoself-A, \underset{A}{\overset{(A,A)}{p}}_{SUprt} \text{ by } 2rpself-A, \underset{(A,A)}{\overset{A}{p}}_{SUprt} \text{ by } 1/2r$$

$$pself-A, \underset{q(A)}{\overset{A}{p}}_{SUprt} \text{ by } qrpself-A, \underset{q(A)}{\overset{A}{p}}_{SUprt} \text{ by } q()rpoself-A, q\text{-any operator,}$$

$$\underset{(q_1, \dots, q_N)}{\overset{A}{p}}_{SUprt} \text{ by } Nrpoself-A, q_i = A, i = 1, \dots, N; \underset{A}{\overset{A}{p_1}}_{SUprt} \underset{A}{\overset{A}{p_1}} \text{ by } rp_1self-A-rp_1oself-$$

$$\begin{aligned}
& fA, \frac{q_2(A)}{p_1} \text{SUprt } \frac{A}{p_1} \text{ by } q_1rp_1\text{self-A-} \begin{pmatrix} q_3() \\ q_2() \end{pmatrix} rp_1\text{oself-A, } \frac{A}{p} \text{CUprt by } 2Crp\text{oself-fA,} \\
& \frac{q_3(A)}{q_1(A)} \frac{(A,A)}{A} \\
& \text{CUprt } \frac{p}{A} \text{ by } 2Crp\text{self-fA, CUprt } \frac{p}{(A,A)} \text{ by } 1/2Crp\text{self-A, CUprt } \frac{p}{q(A)} \text{ by } qCrp\text{self-} \\
& A, \frac{A}{p} \text{CUprt by } q()Crp\text{oself-A, } q\text{-any operator, } \frac{A}{p} \text{CUprt by } NCrp\text{oself-} \\
& \frac{q_2(A)}{q_3(A)} \frac{A}{p_1} \text{CUprt } \frac{A}{p_1} \text{ by } Crp_1\text{self-A- } Crp_1\text{oself-A, } \frac{q_2(A)}{q_3(A)} \frac{A}{p_1} \text{CUprt } \frac{A}{p_1} \text{ by } \\
& q_1Crp_1\text{self-A-} \begin{pmatrix} q_3() \\ q_2() \end{pmatrix} Crp_1\text{oself-A, } \text{SU2prtp } \frac{A}{A} = (rp\text{self-A, } rp\text{self-A}), \text{SUNprtp } \frac{A}{A} = \\
& (q_1, \dots, q_N), q_i = rp\text{self-A, } i = 1, \dots, N. rp\text{self}(\text{SUprtp } \frac{A}{B}) = \text{SUprtp } \frac{A}{B} \text{ } p \frac{A}{B} \text{. Can be} \\
& \text{considered } Q(\frac{A}{p} \text{SUprtp } \frac{A}{p_1}), Q\text{-any operator.}
\end{aligned}$$

2.4 The dynamic continual random SUprt – elements

Definition 2.4.1. The process of random containing with probabilities $p(t) = (p_1(t), p_2(t), \dots, p_n(t))$ in the set of continual elements $\tilde{x}(t) = (x_1(t), x_2(t), \dots, x_n(t))$ at one point w of the space X at time will be called the dynamic random continual Sprt –

element. We will denote $\text{SUprt}(t) \frac{\tilde{x}(t)}{p(t)}$.

Definition 2.4.2. The process of random containing with probabilities $p(t) = (p_1(t), p_2(t), \dots, p_n(t))$ an ordered random set of continual elements at one point in space is called random dynamic continual ordered random Sprt – element.

It is allowed to sum random dynamic continual SUprt– elements:

$$\text{SUprt}(t)_{p(t)} + \text{SUprt}(t)_{p(t)} = \text{SUprt}(t)_{p(t)} \frac{a(\tilde{t})}{q(t)} + \text{SUprt}(t)_{p(t)} \frac{b(\tilde{t})}{q(t)} = \text{SUprt}(t)_{p(t)} \frac{a(\tilde{t}) \cup b(\tilde{t})}{q(t)}$$

Dynamic continual random containment of oneself in oneself as an element.

Definition 2.4.3. The dynamic random continual capacity $Q(t)$ is called the process of random embedding in $Q(t)$.

Definition 2.4.4. The dynamic random continual Sprt-capacity $\text{SUprt}(t)_{p(t)} \frac{R(\tilde{t})}{Q(t)}$ is

called the process of random embedding $R(\tilde{t})$ in $Q(t)$.

Definition 2.4.5. The dynamic random containment continual $A(t)$ of oneself of the first type is the process of random putting $A(t)$ into $A(t)$. Denote

$$S_1 Uf(t)p(t)A(t).$$

Definition 2.4.6. We will call a dynamic random embedding of a random continual $C(t)$ into itself a dynamic random embedding of the second type if it contains dynamic random continual elements from which it can be generated. Denote $S_2 Uf(t)p(t)C(t)$.

Definition 2.4.7. The partial dynamic random containment continual $B(t)$ of oneself of the third type is the process of partial random embedding continual $B(t)$ into oneself or random contains dynamic random continual elements from which it can be generated in part or both simultaneously. Denote $S_3 Uf(t)p(t)B(t)$.

The connection of dynamic continual SUprt -elements with dynamic random containment of oneself in oneself as an element.

Let us consider the partial dynamic continual random containment of oneself in

oneself as an element of the third type. For example, based on $\text{SUprt}(t)_{p(t)} \frac{x(\tilde{t})}{w(t)}$,

where $x(\tilde{t})=(x_1(t), x_2(t), \dots, x_n(t))$ i.e. n - continual elements at one point $w(t)$, one can consider the random dynamic containment $S_3 Uf(t)p(t)$ of oneself in oneself as an element with m continual elements from $x(\tilde{t})$, $m < n$, which is a process that is

necessary form according to the form (2.1), i.e. only m continual elements from

$x(t)$ are located in the structure $SUp_{prt}(t)_{p(t)}^{x(t)}$. Dynamic continual random

containments of oneself in oneself as an element of the third type can be formed for any other structure, not necessarily SUp_{prt} , only by necessarily reducing the number of continual elements in the structure. In particular, with the help of forms (2.1.1) – (2.4). It is possible to introduce structures more complex than $fS_3f(t)_{\mu(t)}$.

Dynamic random continual mathematics.

1. The process of simultaneous random addition of the set of continual

elements $x(t) = (x_1(t), x_2(t), \dots, x_n(t))$ is realized by $SUp_{prt}(t)_{p(t)}^{x(t) \cup w(t)}$.

2. By analogy, for simultaneous random multiplication: $SUp_{prt}(t)_{p(t)}^{x(t) \cap w(t)}$.

3. Similarly for simultaneous execution of various operations: $SUp_{prt}(t)_{p(t)}^{x(t)q(t)}$,

where $q(t) = (q_1(t), q_2(t), \dots, q_n(t))$, $q_i(t)$ -an operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous random execution of various operators:

$SUp_{prt}(t)_{p(t)}^{F(t)x(t)}$, where $F(t) = (F_1(t), F_2(t), \dots, F_n(t))$, $F_i(t)$ is an operator, $i =$

$1, \dots, n$.

5. The dynamic arithmetic itself for the dynamic continual random

containments of oneself will be similar: dynamic random addition -

$S_1Uf(t)p(t)\{x(t) \cup\}$, (or $S_3Uf(t)p(t)\{x(t) \cup\}$ for the third type), dynamic random multiplication $S_1Uf(t)p(t)\{x(t) \cap\}$, (or $S_3Uf(t)p(t)\{x(t) \cap\}$).

6. Similarly with different random operations: $S_1 Uf(t)p(t)\{x(t)q(t)\}$, (or $S_3 Uf(t)p(t)\{x(t)q(t)\}$), and with different random operators: $S_1 Uf(t)p(t)\{F(t)x(t)\}$, (or $S_3 Uf(t)p(t)\{F(t)x(t)\}$).

7. $SUprt(t) \frac{A(t)}{B(t)} p(t)$ gives the result

$$SUrt(t) \frac{A(t)}{B(t)} p(t) =$$

$\{A(t) \cup B(t) - A(t) \cap B(t), D(t)\}$ for random sets $A(t), B(t)$, where $D(t)$ is rself- (continual set) for $A(t) \cap B(t)$. The same is true for structures if they are treated as continual sets.

8. Similarly, for dynamic continual SUprt-derivatives, dynamic continual SUprt-integrals, dynamic continual SUprt-lim, dynamic continual rself-derivatives, dynamic continual rself-integrals.
9. Denote dynamic continual rself-(dynamic continual rself-Q(t)) through dynamic continual rself²-Q(t), $fS(t)(n, Q(t)) = \text{dynamic continual rself-} (\text{dynamic continual rself-}(\dots(\text{dynamic continual rself-Q(t)}))) = \text{dynamic continual rself}^n\text{-Q(t)}$ for n-multiple dynamic continual rself.

Remark 2.4.1. Random dynamic continual SUprt-displacement of A(t) from B(t)

with probabilities $p(t) = (p_1(t), p_2(t), \dots, p_n(t))$ will be denote through $\frac{B(t)}{A(t)} p(t) SUprt(t)$.

Then the notation $\frac{C(t)}{D(t)} \frac{A(t)}{B(t)} p_2(t) SUprt(t) p_1(t)$ is random dynamic continual SUprt - embedding

of A(t) in B(t) and random dynamic continual SUprt-displacement of D(t) from C(t) simultaneously.

We can consider the concept of random dynamic continual SUprt- element as

$\frac{A(t)}{B(t)} p(t) SUprt(t)$, where $\frac{A(t)}{B(t)}$ fits in random dynamic continual random capacity $B(t)$.

Then $\widetilde{B}(t)$ it will mean $S_1 Uf(t) \frac{\widetilde{B}(t)}{A(t)}$. $\frac{A(t)}{A(t)}$ $p(t)$ $\widetilde{B}(t)$ denotes the random

dynamic continual displacement of random $A(t)$ from itself with probabilities $p(t) =$

$(p_1(t), p_2(t), \dots, p_n(t))$, $\frac{A(t)}{A(t)}$ $\frac{A(t)}{A(t)}$ —simultaneous random dynamic continual

containment of oneself $A(t)$ in oneself $A(t)$ with probabilities $p_1(t) = (p_{11}(t),$

$p_{12}(t), \dots, p_{1n}(t))$ and dynamic continual expelling oneself $A(t)$ out of oneself $A(t)$

with probabilities $p_2(t) = (p_{21}(t), p_{22}(t), \dots, p_{2n}(t))$. $\frac{A(t)}{A(t)}$ $p(t)$ $\widetilde{B}(t)$ will be called random

dynamic continual anti random rcapacity from itself with probabilities $p(t) = (p_1(t), p_2(t), \dots, p_n(t))$.

Connection of random dynamic continual $\widetilde{B}(t)$ – elements with target weights with dynamic continual random containment of oneself with target weights.

Consider a third type of dynamic partial random containment of oneself with target

weights $\widetilde{g}(t)$. For example, based on $\frac{x(t)\widetilde{g}(t)}{w(t)}$, where $x(t) = (x_1(t),$

$x_2(t), \dots, x_n(t))$, i.e. n random continual elements with target weights $\widetilde{g}(t)$ at one point $w(t)$, we can consider the dynamic random containment $S_3 Uf(t) \frac{x(t)\widetilde{g}(t)}{w(t)}$

of oneself with target weights with m random continual elements with target

weights $\widetilde{g}(t)$ from $x(t)$, $m < n$, which is the random process of formation according

to the form (1), i.e., only m random continual elements with target weights $\widetilde{g}(t)$

from $x(t)$ are located in the structure $S_3 Uf(t) \frac{x(t)\widetilde{g}(t)}{w(t)}$. Dynamic random

containments of oneself with target weights of the third type can be formed for any

other structure, not necessarily $\widetilde{B}(t)$, only by reducing the number of random

continual elements with target weights in the structure. In particular, using the

form (2.1.1) – (2.4). Structures more complex than $S_3 Uf(t) \frac{x(t)\widetilde{g}(t)}{w(t)}$ can be introduced.

Definition 2.4.8. The dynamic random embedding of random continual $A(t)$ into itself with target weights $\tilde{g}(t)$ of the first type is the process of random embedding $A(t)$ into $A(t)$ with target weights $\tilde{g}(t)$. Denote $S_1 Uf(t)A(t)_{p(t)\tilde{g}(t)}$.

Definition 2.4.9. The dynamic random containment of random continual $C(t)$ itself into itself with target weights $\tilde{g}(t)$ of the second type is the process of random containment of the random continual elements from which it can be random generated. Let's denote $S_2 Uf(t)C(t)_{p(t)\tilde{g}(t)}$.

Definition 2.4.10. Partial random `dynamic containment of random continual $B(t)$ into itself with target weights $\tilde{g}(t)$ of the third type is the process of partial random containment of random continual $B(t)$ into itself or random continual elements from which it can be random generated partially, or both at the same time. Denote $S_3 Uf(t)B(t)_{\mu(t)\tilde{g}(t)}$.

2.5 The usage of SUPrt-elements for networks

A. Galushkin's comprehensive monograph [20] covers all aspects of networks, but traditional approaches go through classical mathematics, mainly through the usual correspondence operators. Here we consider a different approach - through a new mathematical process with random containment operators, which, although they can be interpreted as the result of some correspondence operators, are not themselves correspondence operators [1]. Containment operators are more convenient for networks. Also, the main emphasis was placed on using processors operating using triodes, which are generally not used in SUPrt -networks. SUPrt-networks(SUMnsprt) are a SUPrt -structure that can be built for the required weights. SUPrt -OS (SUPrtoperating system) uses SUPrt -coding and SUPrt -translation. In the first one, coding is carried out through a 2-dimensional matrix-row (a, b) , where the random number b is the code of the action, and the random number a is the code of the object of this action. SUPrt -coding (or rself- (random coding)) is implemented through a random matrix consisting of 2 columns (in the continuous case, two intervals of random numbers). Here, the source encoding is used for all matrix rows simultaneously. SUPrt -translation is carried out by

inversion. In this case, rself- (random coding) and rself- (random translation) will

be more stable. The target weights $q_i(t)$ in $SUprt(t)$ are chosen for

$$\frac{\tilde{x}(t)\tilde{q}(t)}{\tilde{w}(t)}$$

necessary tasks. We will not touch on the issues of applications, or network optimization. They are described in detail by Galushkin [20]. We will touch on the difference of this only for hierarchical complex networks. The same simple executing programs are in the cores of simple artificial neurons of type $SUprt$ (designation - $mnSUprt$) for simple information processing. More complex executing programs are used for $mnSUprt$ nodes. Threshold element $SUprt$ -

$\{a\tilde{x}\}$, b - artificial neurons of type $SUprt$ (designation - $mnSUprt$) ,

$$\frac{p_2}{p_1} \frac{b}{b}$$

$\tilde{x}=(x_1(t), x_2(t), ..., x_n(t))$ is the random set of values of the initial signals,

$a=(a_1, a_2, ..., a_n)$ are the weights of $SUprt$ -synapses and $\tilde{y}=(y_1(t), y_2(t), ..., y_n(t))$ is the

random set of values of the output signals with weights $q=(q_1, q_2, ..., q_n)$.. The first

level of $mnSUprt$ consists of simple $mnSUprt$. The second level of $mnSUprt$

consists of $fSprt_D^{\{mnSt\}}$ – $Sprt$ -node of $mnSUprt$ in range D , D - random capacity for

$mnSUprt$ node. The third level of $mnSUprt$ consists of $SUprt$ $\frac{p}{D}$ $\frac{p}{D}$ -

$SUprt^2$ - node of $mnSUprt$ in range D , thus D becomes random capacity of itself in itself as an element for $mnSUprt$. For our networks, it is sufficient to use $SUprt^2$ -

nodes of $mnSUprt$, but rself-level is higher in living organisms, particularly

$SUprt^n$ -, $n \geq 3$. The target structure or the corresponding program enters the target

unit using alternating current. After that, all networks or parts of them are activated according to the indicative goal. It may appear that we are leaving the network ideology, but these networks are a complex hierarchy of different levels, like living organisms.

Remark 2.5. Traditional scientific approaches through classical mathematics make it possible to describe only at the usual energy level. Here we consider an approach

that makes describing processes with finer energies possible. mnSUprt contains

$\{ \text{reprograms} \}_{\text{SUprt } p}$, reprogram –executing program in SUprt - OS. SUprt -OS (or mnSUprt

rself-OS) is based on SUprt -assembly language (or SUelf-assembly language), which is based on assembly language through SUprt-approach in turn, if the base of elements of SUprt -networks is sufficient. The reprograms are in SUprt-programming environments (or rself- random programming environments), but this question and SUprt -networks base will be considered in the following monographs. In particular, ffelements may contain SUprt-programming operators. In mnSUprt cores, the constant memory Suprt with correspondent reprograms depending on mnSUprt.

The OS (operating system) and the principles and modes of operation of the SUprt-networks for this programming are interesting. But this is already the material for the next publications.

Here is developed a helicopter model without a main and tail rotors based on SUprt– physics and special neural networks with artificial neurons operating in normal and SUprt -modes. Let's denote this model through SUMnsprt. To do this, it's proposed to use mnSUprt of different levels; for example, for the usual mode, mnSUprt serves for the initial processing of signals and the transfer of information to the second level, etc., to the nodal center, then checked. In case of an anomaly - local SUprt –mode with the desired "target weight" is realized in this section, etc., to the center. In the case of a monster during the test, SUMnsprt is activated with the desired "target weight." Here are realized other tasks also. To reach the rself-

SUMnsprt
energy level, the mode $\text{SUprt } p$ is used. In normal mode, it's planned to SUMnsprt

carry out the movement of SUMnsprt on jet propulsion by converting the energy of the emitted gases into a vortex to obtain additional thrust upwards. For this purpose, a spiral-shaped chute (with "pockets") is arranged at the bottom of the SUMnsprt for the gases emitted by the jet engine, which first exit through a straight

chute connected to the spiral one. There is drainage of exhaust gases outside the SUMnsprt. SUMnsprt is represented by a neural network that extends from the center of one of the main clusters of SUPrt- artificial neurons to the shell, turning into the body itself. Above the operator's cabin is the central core of the neural network and the target block, responsible for performing the "target weights" and auxiliary blocks, the functions and roles of which we will discuss further. Next is the space for the movement of the local vortex. The unit responsible for SUMnsprt's actions is below the operator's cab. In SUPrt- mode, the entire network or its sections are SUPrt- activated to perform specific tasks, in particular, with "target weights." In the target, block used SUPrt -coding, SUPrt -translation for activation of all networks to "target weights" simultaneously, then –the reset of this Sit-coding after activation. Unfortunately, triodes are not suitable for Sit -neural networks. In the most primitive case, usual separators with corresponding resistances and cores for ffeoprograms may be used instead triodes since there is no necessity to unbend the alternating current to direct. The SUPrt-operative memory belt is disposed around a central core of SUMnsprt. There are SUPrt -coding, SUPrt -translation, and SUPrt-realize of feprograms and the programs from the archives without extraction, SUPrt-coding and SUPrt-translation may be used in high-intensity, ultra-short optical pulses laser of Nobel laureates 2018-year Gerard Mourou, Donna, Strickland. SUPrt- structure or an reprogram if one is present of needed «target weight» are taken in target block at SUPrt- activation of the networks. SUMnsprt_r^g derives SUMnsprt to the rself-level boundary with *activation* target weight g.

It's used an alternating current of above high frequency and ultra-violet light, which can work with SUPrt- structures in SUPrt –modes by its nature to activate the networks or some of its parts in SUPrt –modes and locally using SUPrt –mode. Above high frequently alternating current go through mercury bearers. That's why overheating does not occur. The power of the alternating current above high

frequently increases considerably for the target block. The activation of all networks is realized to indicate “target weights.”

Appendix

We consider SUprt-logic [1]: consider the functional $g(Q)$, which gives a random numerical value for the truth of the random statement Q from the interval $[0,1]$, where 0 corresponds to "no," and one corresponds to the logical value "yes." Then for joint random statements A, B : $g(A+B)=g(A)+g(B)-g(A*B)+gS(D)$, D - rself- (random statement) from $A*B$, $gS(x)$ - the value of rself-truth for rself- (random statement) x ; for dependent random statements:

$g(A*B)=g(A)*g(B/A)=g(B)*g(A/B)$, where $g(B/A)$ - conditional truth of the random statement B at random statement A , $g(A/B)$ - dependent truth of random statement A at the random statement B . Adding the truth values of inconsistent random propositions: $g(A+B)=g(A)+g(B)$. The formula of complete truth: $g(A)=\sum_{k=1}^n g(B_k) * g(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of hypotheses- (random statements): $\sum_{k=1}^n f(B_k)=1$ (“yes”). Remark. A random statement can be interpreted as an random event, and its truth value as a probability.

SUprt- statement for random set of statements $\tilde{x} = (x_1, x_2, \dots, x_n)$: $\text{SUprt}_{\substack{p \\ w}}^{(x_1, x_2, \dots, x_n)}$,

$\text{SUprt}_{\substack{p \\ w}} \{ g(x_1), g(x_2), \dots, g(x_n) \}$ - SUprt- truth for these statements. It is possible to

consider the rself-statement $S_3 Ufp \tilde{x}$ with m statements from $\tilde{x}$, at $m < n$, which is formed by the form (2.1), that is, only m statements from $\tilde{x}$ are located in the

structure $\text{SUprt}_{\substack{\tilde{x} \\ w}} p$. The same for rself- truth $S_3 Ufp \{ g(x_1), g(x_2), \dots, g(x_n) \}$.

One can introduce the concepts of SUprt-group: $\text{SUrt}_{\substack{\tilde{x} \\ q}} p$, $\tilde{x}$ is usual random group,

$\text{SUrt}_{\substack{\tilde{x} \\ B}} p$, where $\tilde{x}, B$ - usual random groups, rself-groups: $S_i Ufp$, $i=1,2,3$ [2].

Definition 2.5. A structure with a second degree of freedom will be called complete, i.e., "capable" of reversing itself concerning any of its elements clearly, but not necessarily in known operators; it can form (create) new special operators (in particular, special functions). In particular, $CSUrt_{strA}^p$ is such structure. Similarly, for working with models, each is structured by its structure; for example, use $SUprt$ -groups, $SUprt$ -rings, $SUprt$ -fields, $SUprt$ -spaces, $rself$ -(random groups), $rself$ - (random rings), $rself$ - (random fields), and $rself$ - (random spaces). Like any task, this is also a structure of the appropriate random capacity. Since the degree of freedom is double, it is clear that the form of the $rself$ -equation contains a solution or structures the inversion of the $rself$ -(random equation) concerning unknowns, i.e., the structure of the $rself$ -equation is complete.

2.6 Variable random hierarchical dynamic random structures (models, operators) for dynamic, singular, hierarchical random sets

In contrast to the classical one-attribute random set theory [2], [3], where only its contents are taken as a set, we consider a two-attribute random set theory with a random set as a random capacity and separately with its contents. We simply use a convenient form to represent the singularity of a random set. Articles [4] - [16] use the following methodology for permanent structures:

1. Cancellation of the axiom of regularity.
2. 2 attributes for the random set: random capacity and its content.
3. Random compression of a random set, for example, to a point.
4. "turning out" from one another, particularly from a random capacity, we pull out another random capacity, for example, itself, as its element.
5. The simultaneity of one (random compression) and the other ("eversion").
6. Own random capacities.
7. Qualitatively new random programming and random Networks.

Here we will consider variable random structures (models) [1], both discrete and continuous: a) with variable connections, b) with the variable backbone for links, c) generalized version; in particular, in variable random structures (models), for example,

$$p_{14}^{C \text{ SUprt}(t) p_{13}^A} = \left\{ \begin{array}{l} \begin{array}{c} C \\ D \end{array} \begin{array}{c} \text{SUprt} \\ \end{array} (q_2 \geq t \geq q_1) | p_1 \\ \begin{array}{c} B \\ D \end{array} \begin{array}{c} \text{ffS}^1 \text{prtp}_7 \\ \end{array} , q_3 \geq t > q_2 | p_2 \\ \begin{array}{c} C \\ D \end{array} \begin{array}{c} \text{SUprt} \\ \end{array} (q_4 \geq t > q_3) | p_3 \quad (*_{2.1}), \\ \begin{array}{c} \text{SUprt} \\ \end{array} p_{11} , q_5 \geq t > q_4 | p_4 \\ \begin{array}{c} \{\} \\ D \end{array} (p_{12} \text{SUprt}, t > q_5) | p_5 \\ \dots \end{array} \right.$$

p_i - probabilities, $i = 1, \dots, 14$. In particular, $p_{10}^{B \text{ SUprt} p_9^A}$ can be interpreted as a

random game: player 1 random with probability p_9 fits random A into random B, and the other random with probability p_{10} pushes random D out of random B at the same time.

In what follows, we will denote variable random structure (model) through ffVSU(t), self-variable random structures (models) through SfFVSU(t), and oself-variable random structures (models) through OSffVSU(t). Singular random structures (models) are not confused with random structures (models) with

singularities. $p_{10}^{B \text{ SUprt} p_9^A}$ -2-hierarchical random structure: 1-level - elements A, B, D, B

C, D; level 2 - connections between them. 2-

Examples: a) discrete variable random structure with μ_i - measures of fuzziness, $i = 1, \dots, 8$.

$$\begin{array}{ccc} a|p_1 & b|p_8 & g|p_7 \\ c|p_2 & ffVSU(t) & w|p_6 \\ d|p_3 & q|p_4 & r|p_5 \end{array}$$

Fig.II.2

c) continuous variable random structure



Fig.II.3

Where a continuous random set represents the rim of the Fig.II.3.

We introduce the notation m_{fVSU_N} – the number of elements, N – the number of connections between them in the discrete variable 2-hierarchical random structure $ffVSU(t)$. We introduce the notation q_{fVSU_R} – any, R – connections in q_{fVSU_R} in the variable 2-hierarchical random structure $ffVSU(t)$, in particular, q_{fVSU_R} , R can be random sets both discrete and continuous and discrete-continuous. We consider the functional $c(Q)$, which gives a numerical value for the random structurability of Q from the interval $[0,1]$, where 0 corresponds to "no random structure", and 1 corresponds to the value "random structure". Then for joint A, B :

$c(A+B)=c(A)+c(B)-c(A*B)+cS(D)$, D - self-(random structure) from $A*B$, $cS(x)$ - the value of self-(random structure) for self-(random structure) x ; for dependent random structures: $c(A*B)=c(A)*c(B/A)=c(B)*c(A/B)$, where $c(B/A)$ - conditional random structurability of the random structure B at the random structure A , $c(A/B)$ - conditional random structure of the random structure A at the random structure B . Adding inconsistent random structures: $c(A+B)=c(A)+c(B)$. The formula of complete random structure: $c(A)=\sum_{k=1}^n c(B_k)*c(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of random hypotheses- containments: $\sum_{k=1}^n c(B_k)=1$ ("random structure"). Random Sprrt- structure for random set of random structures $\tilde{x}=(x_1,$

$$x_2, \dots, x_n): \text{SUprt}_{\substack{p \\ w}}^{(x_1, x_2, \dots, x_n)} . \text{SUprt}_{\substack{p \\ w}}^{\{c(x_1), c(x_2), \dots, c(x_n)\}} - \text{random SUprt-}$$

structurability for these random structures. It is possible to consider the self-

(random structure) $S_3 U f p \tilde{x}$ with m structures and from $\tilde{x}$, at $m < n$, which is formed by the form (2.1), that is, only m statements from $\tilde{x}$ are located in the structure

$$\begin{matrix} (x_1, x_2, \dots, x_n) \\ \text{SUprt} \quad p \\ w \end{matrix} \text{ or for more complex operators in forms (2.1.1) - (2.4), (2.1*)}$$

and analogs of forms (2.1.1) - (2.4) by type (2.1*). . The same for self-(random structurability) $S_3 U \{c(x_1), c(x_2), \dots, c(x_n)\}$.

Can be considered N-hierarchical random structure: 1-level - elements; level 2 - connections between them, level 3 - relationships between elements of level 2, etc. up to level N+1. N-hierarchical random structure: 1-level - A; 2-level - B, 3-level - C, etc. up to (N+1)- level, where A, B, C, ... can be any in particular, by random actions, random sets, and others.

$$\begin{matrix} C \\ p_{14} \text{SUprt}(t) p_{13} \\ D \end{matrix} \begin{matrix} A \\ B \end{matrix} : \left\langle \begin{matrix} A \rightarrow B \\ A, B \end{matrix} \middle| \begin{matrix} D \leftarrow C \\ C, D \end{matrix} \right\rangle \rightarrow \begin{pmatrix} rself(A \rightarrow B) p_{13} \\ A, B \end{pmatrix}$$

$$\begin{matrix} C \\ p_{14} \text{SUprt}(t) p_{13} \\ D \end{matrix} \begin{matrix} A \\ B \end{matrix} : \left\langle \begin{matrix} A \rightarrow B \\ A, B \end{matrix} \middle| \begin{matrix} D \leftarrow C \\ C, D \end{matrix} \right\rangle \rightarrow \begin{pmatrix} roself(D \leftarrow C) p_{14} \\ C, D \end{pmatrix}$$

Can be considered discrete random hierarchical random structure, continuous random hierarchical random structure, and discrete-continuous hierarchical random structure, SUprt N – hierarchical random structure p_x .

The example

Let SUprt i – level of hierarchical structure p_x , then $\text{QHSU} = \text{HSUprt}$

$$\left\| \begin{matrix} \text{N – level of hierarchical structure} \\ (\text{SUprt} \quad p_x) p_N \\ \dots \\ \text{i – level of hierarchical structure} \\ (\text{SUprt} \quad p_x) p_i \\ \dots \\ \text{1 – level of hierarchical structure} \\ (\text{SUprt} \quad p_x) p_1 \end{matrix} \right\| - \text{random N-hierarchical random}$$

structure compression into point x, p_i - probabilities, $i = 1, \dots, N$.

Let $\text{rg}(N, \text{QHSU}) = \text{QHSU} \left. \begin{matrix} \text{QHSU} \text{QHSU} \dots \text{QHSU} \end{matrix} \right\} \text{-N levels}$

It can be considered self- QHSU, $rg(y, QHSU)$ for any y , $rg(QHSU, QHSU)$.

Compression random Hierarchy Examples:

$$\begin{aligned}
 & \begin{pmatrix} 0 \\ SU_{prt}p \\ 0 \\ SU_{prt}p \\ 0 \\ SU_{prt}p \\ 0 \\ SU_{prt}p + B \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ SU_{prt}p \\ 0 \\ SU_{prt}p \\ 0 \\ SU_{prt}p \\ 0 \\ SU_{prt}p \\ 0 \\ p \\ B \end{pmatrix} \\
 & \begin{pmatrix} 0 & 0 \\ C + p_2SU_{1prt}p_1 & A + p_2S_1U_{prt}p_1 \\ 0 & 0 \\ 0 & 0 \\ p_2 & SU_{1prt} & p_1 \\ 0 & 0 & 0 \\ D + p_2S_1U_{prt}p_1 & B + p_2S_1U_{prt}p_1 \\ 0 & 0 & 0 \end{pmatrix} = \begin{pmatrix} 0 & 0 \\ p_2S_1U_{prt}p_1 & p_2S_1U_{prt}p_1 \\ 0 & 0 \\ p_2 & S_1U_{prt} & p_1 \\ 0 & 0 & 0 \\ p_2S_1U_{prt}p_1 & p_2S_1U_{prt}p_1 \\ 0 & 0 & 0 \\ C & A \\ p_2S_1U_{prt}p_1 & \\ D & B \end{pmatrix},
 \end{aligned}$$

Where p_i - probabilities, $i = 1, 2$.

Let's consider two versions: 1) random containment is interpreted through the concept of random containment, and 2) random capacity is interpreted through the concept of random containment as a rest point of random containment. Self-(random containment) is interpreted as a rest point of self-(random containment).

Let A self-(random compress) into B, D self-(random displace) from C in

$$\begin{pmatrix} C & A \\ p_2VS_1U_{prt}p_1. \\ D & B \end{pmatrix}$$

We consider the functional $ca(Q)$ [1], which gives a numerical value for the accommodation of random Q from the interval $[0,1]$, where 0 corresponds to "random containment" and one corresponds to the value "random capacity". Then for joint random A, B : $ca(A+B)=ca(A)+ca(B)-ca(A*B)+caS(D)$, D - self-(random containment) for $A*B$, $caS(x)$ - the value of self-(random capacity) for self-(random containment) of x ; for dependent random containments: $ca(A*B)=ca(A)*ca(B/A)=ca(B)*ca(A/B)$, where $ca(B/A)$ - conditional accommodation of the random containment B at the random containment A , $ca(A/B)$ - conditional random capacity of the random containment A at the random containment B . Adding the random capacity values of inconsistent random containments: $ca(A+B)=ca(A)+ca(B)$. The formula of complete random capacity: $ca(A)=\sum_{k=1}^n ca(B_k) * ca(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of random hypotheses- containments: $\sum_{k=1}^n ca(B_k)=1$ ("random capacity"). $SUprt$ -(random containment) for

$$\tilde{x} = (x_1, x_2, \dots, x_n): SUprt \begin{matrix} (x_1, x_2, \dots, x_n) \\ p \\ w \end{matrix},$$

$\tilde{x}$ - random set of random containments. $SUprt \begin{matrix} \{ca(x_1), ca(x_2), \dots, ca(x_n)\} \\ p \\ w \end{matrix}$ - $SUprt$ -

accommodation for these random containments x_i , $i = 1, \dots, n$. It is possible to consider the self-(random containment) $S_3Ufp\tilde{x}$ with m random containments from $\tilde{x}$, at $m < n$, which is formed by the form (2.1), that is, only m random

containments from $\tilde{x}$ are located in the random containment $SUprt \begin{matrix} (x_1, x_2, \dots, x_n) \\ p \\ w \end{matrix}$.

The same for self-(random accommodation) $S_3Uf\{ca(x_1), ca(x_2), \dots, ca(x_n)\}$.

Consider a variable random hierarchy (we will denote it by VHU) [1].

The example of variable random hierarchy

$${}_D^C fSt(t)_B^A = \left\{ \begin{array}{l} \left(\left\{ Q + {}_{D-D \cap C}^{\{\}} fSt \right\}, q_2 \geq t \geq q_1 \right) | p_1 \\ fS_0^{1^e} fB^* \\ \left(\left({}_B^C fS_1^1 t_B^{A-B} \right), q_3 \geq t > q_2 \right) | p_2 \\ fS_{01}^{et} fB \\ \left(\left({}_{C-B}^{C-B} fS_1 t_B^{A-B} \right), q_4 \geq t > q_3 \right) | p_3 \\ {}_{D-C-B}^{C-B} fS_1 t_B^{A-B} \\ \left(\left({}_{A \cup B - A \cap B}^R \right), q_5 \geq t > q_4 \right) | p_4 \\ \left({}_D^{\{\}} fSt, t > q_5 \right) | p_5 \\ \dots \end{array} \right. \quad (*_{D.2}),$$

where Q is osel-(random set) for random $(D \cap C)$ [10], [15], R is self-(random set) for random $A \cap B$ [10] - [16], $fS_{01}^{et} fB$, ${}_{C-B}^{C-B} fS_1 t_B^{A-B}$, ${}_{D-C-B}^{C-B} fS_1 t_B^{A-B}$ are considered in [6], [11], p_i - probabilities, $i = 1, \dots, 5$. Variable compression (designation VSU) of random $\tilde{A}$ into $\tilde{x}(t)$: $fSt_{\tilde{x}(t)}^{\tilde{A}}$, where $\tilde{x}(t)$ - any dynamical random object at time t.

We consider the functional $h(Q)$, which gives a numerical value for the hierarchization of random Q from the interval $[0,1]$, where 0 corresponds to "no random hierarchy," and 1 corresponds to the value "random hierarchy." Then for joint random hierarchies A, B: $h(A+B)=h(A)+h(B)-h(A*B)+hS(D)$, D- self-(random hierarchy) from $A*B$, $hS(x)$ - the value of self-(random hierarchy) for self-(random hierarchy) x; for dependent random hierarchies:

$h(A*B)=h(A)*h(B/A)=h(B)*h(A/B)$, where $h(B/A)$ - conditional hierarchization of the random hierarchy B at the random hierarchy A, $h(A/B)$ - conditional random hierarchy of the random hierarchy A at the random hierarchy B. Adding the random hierarchy values of inconsistent random hierarchies: $h(A+B)=h(A)+h(B)$. The formula of complete random hierarchy: $h(A)=\sum_{k=1}^n h(B_k) * h(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of random hypotheses- hierarchies: $\sum_{k=1}^n h(B_k)=1$ ("random hierarchy").

SUprt- structure for random set of hierarches $\tilde{x} = (x_1, x_2, \dots, x_n)$:

$$\text{SUprt} \begin{matrix} (x_1, x_2, \dots, x_n) \\ p \\ B \end{matrix} .$$

$$\text{SUprt} \begin{matrix} \{h(x_1), h(x_2), \dots, h(x_n)\} \\ p \\ B \end{matrix} - \text{SUprt-hierarchization for these random}$$

hierarches. It is possible to consider the self-(random hierarchy) S_3UA with m random hierarches from A , at $m < n$, which is formed by the form (1), that is, only

m random hierarches from A are located in the random hierarchy $\text{SUprt} \begin{matrix} A \\ p \\ B \end{matrix}$. The

same for self- hierarchization $S_3U\{h(x_1), h(x_2), \dots, h(x_n)\}$. Can be considered

$$\text{SUprt} \begin{matrix} \{ca(x), c(x), h(x)\} \\ p \\ B \end{matrix} . \text{ Very interesting next random hierarchy type:}$$

random hierarchy A $\text{SUprt} \begin{matrix} A \\ p \end{matrix}$ random hierarchy A . You can enter special
random hierarchy A random hierarchy A

operator CSUprt to work with random structures:

$$\begin{matrix} A & Q \\ p_2 \text{CSUprt} & p_1 \end{matrix} \begin{matrix} A \\ D \end{matrix} \begin{matrix} R \end{matrix} \text{ random structures } R \text{ with the random structure from } Q \text{ with}$$

probabilities p_1 and unstructures random A by the random structure D with probabilities p_2 simultaneously.

Very interesting next random structure type:

$$\begin{matrix} A & A \\ p_2 \text{CSUprt} & p_1 \end{matrix} . \text{ You can enter special operator } \text{HSUprt} \text{ to work with random}$$

hierarches: $p_2 \text{HSUprt} \begin{matrix} A & A \\ D & R \end{matrix} \begin{matrix} Q \end{matrix}$ random hierarchizes R with the random hierarchy

from Q with probabilities p_1 and unhierarchizes random A by the random hierarchy D with probabilities p_2 simultaneously.

2.7 RANDOM PROGRAM OPERATORS SUprt , fftprSU , SU^1epr , SUEprt_1

Here it is supposed to use a symbiosis of parallel actions and conventional calculations through sequential actions [1]. This must be done through SUprt -

Networks - random analogue of Sprt-Networks [15] in one of the central departments of which a conventional computer system is located. The parallel processor is itself reprogram - random analogue of eprogram [15] with direct parallel computing not through serial computing.

Using conventional coding by a computer system, through a Target-block with a random SUprt -program operator - $\text{SUprt} \frac{Ag}{p}$ with probabilities p , it will be *activation*

possible to obtain the random execution with probabilities p of a parallel random action A with the desired target weight g or the execution of a parallel action A with the desired random target weight g or both. Each code for a neural network from a conventional computer we "bind" (match) to the corresponding value of current (or voltage). For SUprt-coding and SUprt-translation may be use alternating current of ultrahigh frequency or high-intensity ultra-short optical pulses laser of Nobel laureates 2018 year Gerard Mourou, Donna Strickland, or a combination of them. For the desired action, for example, using the direct parallel fprogram of

operator $\text{SUprt} \frac{\{UHF AC := Q\}}{p}$ with probabilities p , we simultaneously enter the *activation*

desired set of codes Q using a microwave current or high-intensity ultra-short optical pulses laser in Target-block.

In a conventional computer, the process of sequential calculation takes a certain time interval, in a directly parallel calculation by a neural network, the calculation is instantaneous, but it occupies a certain region of the space of calculation objects. Consider the types of direct parallel random fprogram operators:

- 1) random SUprt-program operators (designation SUprt-program operators)
- 2) random ftrprS-program operators (designation ftrprS-program operators)
- 3) random fS¹epr - program operators (designation SU¹epr -program operators)
- 4) random Seprt₁- program operators (designation SUEprt₁-program operators)

One example is pattern recognition: SUprt

if SUprt $\frac{\text{image archive}}{p}$ $\frac{q}{B}$ $\exists \text{SUprt}$ $\frac{p}{B}$ then Name of q .

The example of SUprt -program is SUprt

$\{ \text{SUprt} \frac{\{p\} := \{a(x)\}}{p} , \text{SUprt} \frac{IF \{B\} \{f\}}{p} \text{ then } Q , \text{SUprt} \frac{Q}{Q} \}$

Consider a third type of random capacity in itself - random analogue of capacity in

itself. For example, based on $\text{SUprt} \frac{\tilde{x}}{q}$, where $\tilde{x} = (x_1, x_2, \dots, x_n)$, i.e. n - elements at

one point, we can consider the capacity $S_3 Uf \tilde{x}$ (in itself with m elements from $\tilde{x}$, $m < n$, which is formed according to the form (2.1),

that is, the structure $\text{SUprt} \frac{\tilde{x}}{p}$ contains only m elements or for more complex operators

in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

Here are some of the random SUprt -program operators.

1. Simultaneous random assignment with fuzziness m of the expressions $\{r\} = (r_1, r_2, \dots, r_n)$ to the variables $\tilde{x} = (x_1, x_2, \dots, x_n)$. This is implemented via $\text{SUprt} \frac{\{\tilde{x}\} := \{r\}}{p}$.

2. Simultaneous random checking with fuzziness m by the random set of conditions $\tilde{g} = (g_1, g_2, \dots, g_n)$ for the random set of expressions $\tilde{B} = (B_1, B_2, \dots, B_n)$ Implemented via $\text{SUprt} \frac{IF \{\tilde{B}\} \{\tilde{g}\}}{p} \text{ then } \tilde{Q}$ where $\tilde{Q}$ can be anything.

3. Similarly for random loop operators and others.

$S_3 Uf$ – random software operators will differ only just because aggregates

$\tilde{x}, \{r\}, \tilde{B}, \tilde{g}$ will be formed from corresponding SUprt -program operators in form

(2.1), for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

For example, $\text{SUprt } p \begin{matrix} \{R\} \\ g\{R\} \end{matrix}$ is the random capacity with probabilities p in itself of the second type if $g\{R\}$ is a rprogram capable of random generating $\{R\}$ with probabilities p.

The example of self-rprogram of the first type is

$$\text{SUprt } \left\{ \text{SUprt } \begin{matrix} \{r\} := \{a(x)\} \\ p \\ w \end{matrix}, \text{SUprt } \begin{matrix} IF \{B\} \{f\} \\ p \\ w \end{matrix} \text{ then } Q, \text{SUprt } \begin{matrix} Q \\ Q \end{matrix} \right\}.$$

The example of SUprt-program for SUMnsprt:

$q :=$
 $\text{SUprt } p \begin{matrix} q \\ B \end{matrix}$ - random assigning random q to random B with probabilities p.

$tw :=$
 $\text{SUprt } p \begin{matrix} tw \\ g \end{matrix}$ - random assigning target weight tw to random g with probabilities p.

$\text{SUprt } \begin{matrix} \{q\}w \\ p \end{matrix}$ - SUMnsprt activation for random $\{q\}w$ with probabilities p.
ffSmnsprt activation

SUprt-coding.

SUprt-coding with probabilities p: 1) random set A to random set B, 2) random set A to a point q, where the elements of the random sets A, B can be continuous. For

example, $\text{SUprt } p \begin{matrix} A \\ B \end{matrix}$.

There are SUprt-coding, SUprt-translation, SUprt-realize of reprograms and of the ffprograms from the archives without extraction theirs

SUelf-coding.

SUelf-coding with probabilities p: 1) random set A to set random A, i.e. random A on itself 2) random set A to a point q in form (2.1), where the elements of the random sets A, B can be continuous. For example, $\suprt p \frac{A}{A}$.

One of the central departments of the control system should be a computer system of the usual type of the desired level. In symbiosis with SUprt-Networks, it will provide a holistic operation of the control system in three modes: conventional serial through a conventional type computer system, direct parallel through SUprt-Networks and series-parallel. Codes from a conventional type of computer system will be used via SUprt -connectors in SUprt - coding, for example: $\suprt \{ \text{UHF AC} := Q \}$
 p . UHF AC field activation is used.
activation

Dynamic SUprt and $S_3Uf(t)$ programming [1].

The ideology of dynamic SUprt and $S_3Uf(t)$ can be used for programming:

4. Simultaneous assignment of the expressions $r(t) = (r_1(t), r_2(t), \dots, r_n(t))$ to the variables $x(t) = (x_1(t), x_2(t), \dots, x_n(t))$. This is implemented via

$$\suprt(t) \frac{\{x(t)\} := \{r(t)\}}{p(t) \cdot w(t)}.$$

5. Simultaneous checking the random set of conditions $g(t) = (g_1(t), g_2(t), \dots, g_n(t))$ for the random set of expressions $B(t) = (B_1(t), B_2(t), \dots, B_n(t))$. Implemented via $\suprt(t) \frac{IF \{ \{B(t)\} \{g(t)\} \} \text{ then } Q(t)}{p(t) \cdot w(t)}$ where $Q(t)$ can be anything.

6. Similarly for random loop operators and others.

$S_3Uf(t)$ – random software operators will differ only just because aggregates $x(t), r(t), B(t), g(t)$ will be formed from corresponding SUprt-program operators in

form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

tprSU-program operators.

The ideology of tprSU and t_{S_4Uf} - random analogues of tS and t_{S_4f} from [10] can be used for programming. Here are some of the tSU-program operators.

1. Simultaneous expelling assignment of the expressions $\tilde{r} = (r_1, r_2, \dots, r_n)$ from

$$\begin{array}{c} \tilde{x} \\ \text{the variables } \tilde{x} = (x_1, x_2, \dots, x_n). \text{ This is implemented via } \\ p \text{ SUprt.} \\ = : \tilde{r} \end{array}$$

2. Simultaneous expelling check the random set of conditions $\tilde{g} = (g_1, g_2, \dots, g_n)$ for the random set of expressions $\tilde{B} = (B_1, B_2, \dots, B_n)$. It's implemented

$$\text{through } \begin{array}{c} w \\ p \\ IF \{ \{ \tilde{B} \} \{ \tilde{g} \} \} \text{ then } \tilde{Q} \end{array} \text{ SUprt where Q can be any.}$$

3. Similarly for loop operators and others.

t_{S_4Uf} – random software operators will differ only just because aggregates $\tilde{x}, \tilde{r}, \tilde{B}, \tilde{g}$ will be formed from corresponding tprSU program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*). Consider hierarchical fftprS-program operator

$$\begin{array}{c} B \\ p \text{ SUprt} \\ A \end{array} = \left\{ \begin{array}{c} D + \begin{array}{c} \{ \} \\ p \\ A - A \cap B \\ (B - A \cap B) \end{array} \text{ SUprt} \end{array} \right\}, \text{ where D is oself-(random set) for random } (A \cap B).$$

Dynamic tprSU and $t(q)_{S_4Uf}$ programming at time q.

The ideology of tprSU and t_{S_4Uf} can be used for dynamic programming. Here are some of the tprSU(t)- dynamic programming operators.

1. The process of simultaneous expelling assignment of the expressions $\tilde{r}(t) = (r_1(t), r_2(t), \dots, r_n(t))$ from the variables $\tilde{x}(t) = (x_1(t), x_2(t), \dots, x_n(t))$ is implemented through

$$\begin{array}{c} \tilde{x}(t) \\ p(t) \text{ SUprt}(t). \\ = : \tilde{r}(t) \end{array}$$

2. The process of simultaneous expelling check the random set of conditions $\tilde{g}(t) = (g_1(t), g_2(t), \dots, g_n(t))$ for the random set of expressions $\tilde{B}(t) = (B_1(t), B_2(t), \dots, B_n(t))$ is

implemented through
$$\begin{matrix} w(t) \\ p(t) \end{matrix} \text{SUprt}(t), \text{ where } Q(t) \text{ can be any.}$$

$$IF \left\{ \left\{ \tilde{B}(t) \right\} \left\{ \tilde{g}(t) \right\} \right\} \text{ then } \tilde{Q}(t)$$

3. Similarly for loop operators and others.

t_{S_4Uf} – random software operators will differ only just because aggregates

$\tilde{x}(t), \tilde{r}(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding processes $\text{tpRSU}(t)$ for above mentioned programming operators through form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

Consider hierarchical dynamic tprSU-program operator:

$$\begin{matrix} B(q) \\ p(q) \text{SUprt}(q) \\ A(q) \end{matrix} = \left\{ \begin{matrix} f f t(q)_{S_1 f(A(q) \cap B(q))} + \begin{matrix} \{ \} \\ \mu \end{matrix} A(q) - A(q) \cap B(q) \\ (B(q) - A(q) \cap B(q)) \end{matrix} \text{SUprt}(q) \right\},$$

SU¹epr -program operators (form $\begin{matrix} B & A \\ p_2 \text{SU}^1 \text{prt} p_1 & \\ D & B \end{matrix}$ - random analogue of $\begin{matrix} B \\ D \end{matrix} S^1 t_B^A$ [6]))

For example,
$$\begin{matrix} \{a(t)\} \\ \mu_2 \text{SU}^1 \text{prt} \\ \{=: \{r(t)\}\} \end{matrix} IF \left\{ \left\{ B(t) \right\} \left\{ f(t) \right\} \right\} \text{ then } Q(t) \begin{matrix} p_1 \\ \{a(t)\} \end{matrix} .$$

Consider hierarchical dynamic SU¹epr-program operator: (form $\begin{matrix} B & A \\ p_2 S^1 \text{Uprt} p_1^* & \\ A & B \\ B & A \end{matrix}$).
 $\begin{matrix} p_2 S^1 \text{Uprt} p_1 \\ D - A & B \end{matrix}$

SUeprt₁- program operators (form $\begin{matrix} C & A \\ p_2 \text{SU}_1 \text{prt} p_1 & \\ D & B \end{matrix}$ - random analogue of $\begin{matrix} C \\ D \end{matrix} S_1 t_B^A$ [11]))

$$1. \text{ sUprt} \left\{ \begin{array}{c} q \left(\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array} \right) \\ W_q \end{array} fSprt_{q \left(\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array} \right)}^{E_q}, fSprt_{d_r(E_{in} l^{d_r})}^{E^{ex} l^{d_r}} \right\} \text{—rprogram structure example,}$$

p
 t_0

where the assemblage point d_r is the cursor, it is quite complex self—
fprogram.

$$2. \text{ sUprt} \left\{ \begin{array}{c} q \left(\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array} \right) \\ W_q \end{array} fSprt_{q \left(\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array} \right)}^{E_q}, fSprt_{d_r(E_{in} l^{d_r})}^{E^{ex} l^{d_r}} \right\} \text{can be interpreted as a}$$

p
 t_0

rprogram operator.

$\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array}$ can be interpreted as a $\left(\begin{array}{c} s_1 elf \\ os_1 elf \end{array} \right)$ -rprogram operator. $\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array}$ —sample
 $\left(\begin{array}{c} s_1 elf \\ os_1 elf \end{array} \right)$ -fprogram structure example.

Appendix

Remark. Energy of a living organism:

$$\text{rg}(r, a(E_q)) = \text{sUprt} \left\{ \begin{array}{c} q \left(\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array} \right) \\ W_q \end{array} fSprt_{q \left(\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array} \right)}^{E_q}, fSprt_{d_r(E_{in} l^{d_r})}^{E^{ex} l^{d_r}} \right\} (**_{2.7}).$$

p
 t_0

$\begin{array}{cc} a & a \\ p_1 \text{SUrt} p_1 & a \\ a & a \end{array}$ -internal energy of a living organism, q - a gap in the energy cocoon of a living organism, r -the position of the assemblage point d_r on the energy cocoon of a living organism, W_q - energy prominences from the gap in the cocoon of a living organism, E_q -external energy entering the gap in the cocoon of a living organism, $E^{ex} l^{d_r}$ - a bundle of fibers of external energy self-capacities from outside the cocoon, collected at the point of assembly of the cocoon of a living organism at time t_0 , $E_{in} l^{d_r}$ - a bundle of fibers of external energy self-capacities from inside the cocoon, collected at the point of assembly of the cocoon of a living organism in the

same position r of the assemblage point d_r . d_r is the subject of identifying the energy fibers of the subtle energy of the Universe in position r both outside and inside the cocoon.

Energy with probabilities p_1, p of a living organism of a person:

$$ffpg(r, a(E_q)) = \text{SUprt} \left\{ \begin{array}{c} q \left(\begin{array}{c} a \\ p_1 \text{SUprt} p_1 \\ a \end{array} \right) \\ W_q \end{array} fSprt_{q \left(\begin{array}{c} a \\ p_1 \text{SUprt} p_1 \\ a \end{array} \right)}^{E_q}, fSprt_{d_r \left(\begin{array}{c} E_{ex}^{d_r} \\ \text{self}(E_{in}^{d_r}) \end{array} \right)} \right\} \quad \begin{array}{c} p \\ t_0 \end{array} \quad (**_{2.7}).$$

$(**_{2.7}), (***_2.7)$ can be interpreted as SUprt- program operators.

Entire neural network as instantaneous simultaneous rRAM in SUprt-elements and

$$rself\text{-elements} \cdot rself f^{rself} \dots, ff1 \downarrow I \uparrow_{-1}^1 ff_2 \dots, ff1 \downarrow I \uparrow_{-1}^1 ff_2 \dots$$

$rsin \infty^{rsin \infty} \dots$. When activated in a neural network, the entire neural network becomes a working memory. Use of rself-energy as random activation or from

$$\begin{array}{ccc} \text{outside. } rQ_0 = \text{SUprt} & \begin{array}{c} SU_{mnSprt} \\ p \\ \text{activation} \end{array} & \rightarrow \text{self-rRAM, } rQ_{00} = \begin{array}{c} SU_{mnSprt} \\ p \\ \text{activation} \end{array} \text{SUprt, } rQ_{0prt}, \\ & \begin{array}{c} SU_{mnSprt} \\ p \\ \text{activation} \end{array} & \begin{array}{c} SU_{mnSprt} \\ p \\ \text{activation} \end{array} \end{array}$$

$$rQ_{01} = \begin{array}{c} SU_{mnSprt} \\ p \\ \text{activation} \end{array} rQ_0, rQ_0, rQ_{00}, rQ_{01}\text{-coding, translation, realization in reprograms,}$$

use rQ_0, rQ_{00}, rQ_{01} -SU_{mnSprt}, rAssembler.

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Part III. Dynamic interpretation of uncertainties such as random events with fuzzy probabilities

Introduction

Introduction

Significance of the section: in a new qualitatively different approach to the study of complex processes through new mathematical, random fuzzy hierarchical, random dynamic fuzzy structures, in particular those random processes that are dealt with by Synergetics.

We consider expression

$$\begin{matrix} C & \tilde{A} \\ \tilde{p}_2^{FSUp\text{rt}} & \tilde{p}_1 \\ D & B \end{matrix} \quad (*_{3.1})$$

where the random $\tilde{A} = (a_1|\mu_{\tilde{A}}(a_1), a_2|\mu_{\tilde{A}}(a_2), \dots, a_n|\mu_{\tilde{A}}(a_n))$ appear into the random events B with probabilities $\tilde{p}_1 = (p_{11}|\mu_{\tilde{p}_1}(p_{11}), p_{12}|\mu_{\tilde{p}_1}(p_{12}), \dots, p_{1n}|\mu_{\tilde{p}_1}(p_{1n}))$, $\tilde{D} = (d_1|\mu_{\tilde{D}}(d_1), d_2|\mu_{\tilde{D}}(d_2), \dots, d_n|\mu_{\tilde{D}}(d_n))$ are forced out of C with probabilities $\tilde{p}_2 = (p_{21}|\mu_{\tilde{p}_2}(p_{21}), p_{22}|\mu_{\tilde{p}_2}(p_{22}), \dots, p_{2n}|\mu_{\tilde{p}_2}(p_{2n}))$.

The result of this process will be described by the expression

$$\begin{matrix} C & \tilde{A} \\ \tilde{p}_2^{FSUr\text{t}} & \tilde{p}_1 \\ D & B \end{matrix} \quad (*_{3.2})$$

If A, B, D, C are taken as fuzzy, then we will call $(*_{3.1})$ a random dynamic fuzzy operator. The need $(*_{3.1})$ arose to describe processes in networks. Threshold

element FSUp_{rt} - $\begin{matrix} b & \{a\tilde{x}\} \\ \tilde{p}_2^{FSUp\text{rt}(t)} & \tilde{p}_1 \\ \{qy\} & b \end{matrix}$, b- artificial neurons of type FSUp_{rt}

(designation - mnFSUp_{rt}) , $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|,\dots,x_n|\mu_{\tilde{x}}(x_n))$ is the fuzzy set of values of the initial signals, $\mu_{\tilde{x}}(x_1), \mu_{\tilde{x}}(x_2),\dots,\mu_{\tilde{x}}(x_n)$ are themselves of fuzzy, $a=(a_1,a_2,\dots,a_n)$ are the weights of FSUp_{rt}-synapses and $\tilde{y}=(y_1|\mu_{\tilde{y}}(y_1), y_2|\mu_{\tilde{y}}(y_2)|, \dots,$

$y_n | \mu_{\tilde{y}}(y_n)$) is the fuzzy set of values of the output signals with weights $q=(q_1, q_2, \dots, q_n)$; $\mu_{\tilde{y}}(y_1), \mu_{\tilde{y}}(y_2), \dots, \mu_{\tilde{y}}(y_n)$) are themselves of fuzzy. It can be considered a simpler version of the random dynamic fuzzy set

$$\text{FSUprt}_{\tilde{p}}^A (**)_{3.1}$$

where fuzzy set A fuzzy fits with probabilities $\tilde{p} = (p_1 | \mu_{\tilde{p}}(p_1), p_2 | \mu_{\tilde{p}}(p_2), \dots, p_n | \mu_{\tilde{p}}(p_n))$ into fuzzy set B, the result of this process will be described by the expression

$$\text{FSUrt}_{\tilde{p}}^A (**)_{3.2}$$

or

$$\tilde{p} \text{FSUprt}_{\tilde{p}}^B (***)_{3.1}$$

where fuzzy set A is fuzzy forced out of B with probabilities $\tilde{p}$, the result of this process will be described by the expression

$$\tilde{p} \text{FSUrt}_{\tilde{p}}^B (***)_{3.2}$$

. We consider: the measure:

$$1) m^{**}(\tilde{p}_2^b \text{SUrt}_{\tilde{p}_1}^A) = \frac{\mu(A) \|\tilde{p}_1\|}{\mu(D) \|\tilde{p}_2\|}, \text{ where } m(A), m(D) \text{ -- usual measures of fuzzy sets } A, D.$$

$$2) \text{ measure of fuzziness } \tilde{p}_2^b \sim \tilde{p}_1^A \text{SUrt}_{\tilde{p}_1}^A = \frac{\mu_{\tilde{A}}(A) \|\tilde{p}_1\|}{\mu_{\tilde{D}}(D) \|\tilde{p}_2\|}, \text{ where } \mu_{\tilde{A}}(A), \mu_{\tilde{D}}(D) \text{ --}$$

measures of fuzziness of fuzzy sets A, D. $\mu_{\tilde{x}}(\tilde{x})$ - measure of fuzziness of $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$ let's define it as $\frac{\mu_{\tilde{x}}(x_1) + \mu_{\tilde{x}}(x_2) + \dots + \mu_{\tilde{x}}(x_n)}{n}$.

Remark. One can consider some generalization for $(^*_{3.1}), (^*_{3.2})$: $\frac{q_1(C)}{\tilde{p}_2^D} \text{FSUp}_{\text{prt}} \frac{\tilde{p}_1^A}{q(B)}$,

$\frac{q_1(C)}{\tilde{p}_2^D} \text{FSU}_{\text{rt}} \frac{\tilde{p}_1^A}{q(B)}$, where A is contained into B through q, D is forced out of C

through q_1 , A, B, D, C are taken as fuzzy sets. Similarly, for $(^{**}_{3.1}), (^{**}_{3.2})$: $\text{FSUp}_{\text{prt}} \frac{\tilde{p}^A}{q(B)}$,

$\text{FSU}_{\text{rt}} \frac{\tilde{p}^A}{q(B)}$, where A is contained into B through q, for $(^{***}_{3.1}), (^{***}_{3.2})$:

$\frac{q(B)}{\tilde{p}^D} \text{FSUp}_{\text{prt}}, \frac{q(C)}{\tilde{p}^D} \text{SU}_{\text{rt}}$, where D is displaced from C through q.

Let us introduce the concepts FCha, the fuzzy capacity measure, and FCca, the measure of its fuzzy content. FCca is the same as the number of fuzzy capacity content items. Consider the compression ratios of the fuzzy dynamic fuzzy set:

$q_1 = \text{FSUp}_{\text{prt}} \frac{\tilde{p}^A}{B}$ answers I compression power of fuzzy dynamic fuzzy set A, $q_2 = \text{FSUp}_{\text{prt}} \frac{\tilde{p}^A}{B}$

$\frac{q_1}{\tilde{p}^B}$ –II compression power of fuzzy dynamic fuzzy set A, ..., $q_{n+1} = \text{FSUp}_{\text{prt}} \frac{q_n}{\tilde{p}^B}$ –n+1

compression power of fuzzy dynamic fuzzy set A. In contrast to the classical one-attribute fuzzy set theory [2], [3], where only its contents are taken as a fuzzy set, we consider a two-attribute fuzzy set theory with a fuzzy set as a fuzzy capacity and separately with its contents. We introduce the designations: CoFQ—the contents of the fuzzy capacity Q. Previously [4] - [16] the axiom of regularity (A8) [17] is removed from the axioms of set theory, so we naturally obtain the possibility of using singularities in the form of frself- random (fuzzy sets), frself- random (fuzzy elements), which is exactly what we need for new mathematical models for describing complex processes.

3.1 Fuzzy SUprt – elements

Definition 3.1.1. The fuzzy set of elements $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$ at one point q with with probabilities $\tilde{p}$ of space X we shall call fuzzy SUprt– element (designation - FSUp_{\text{prt}}– element), and such a point in space is called fuzzy

capacity of the FSUprt- element. We shall denote $\text{FSUprt}_{\tilde{q}}^{\tilde{x}}$. The result of this

process we shall denote $\text{FSUrt}_{\tilde{q}}^{\tilde{x}}$.

Definition 3.1.2. $\text{FSUprt}_{\tilde{q}}^{\tilde{x}}$ —dynamic with probabilities $\tilde{p}$ fuzzy set $\tilde{x}$ at q .

Definition 3.1.3. An ordered fuzzy set of elements at one point q in space with

probabilities $\tilde{p}$: $\text{FSUprt}_{\tilde{q}}^{\vec{r}}$, $r = \tilde{x}$, is called an ordered FSUprt- element.

It's possible to $\text{FSUrt}_{\tilde{q}}^{\tilde{x}}$ correspond to the fuzzy set of elements $\tilde{x}$, and to the

ordered FSUprt- element - a fuzzy rvector, a fuzzy rmatrix, a fuzzy rtensor, a fuzzy directed rsegment in the case when the totality of elements is understood as a fuzzy set of elements in a fuzzy segment.

It's allowed to sum FSUprt- elements: $\text{FSUprt}_{\tilde{q}}^{\tilde{x}} + \text{FSUprt}_{\tilde{q}}^{\tilde{y}} = \text{FSUprt}_{\tilde{q}}^{\tilde{x} \cup \tilde{y}}$.

These structures are more suitable for using fuzzy sets for energy space, for any objects. The operator FSUprt is adapted for ordinary energies, using their property to overlap.

Fuzzy rcapacity in itself.

Definition 3.1.4. The fuzzy rcapacity A in itself of the first type is the fuzzy capacity random containing with probabilities $\tilde{p}$ itself as an element. Denote $F S_1 U f \tilde{p} A$.

Definition 3.1.5. The fuzzy rcapacity A in itself of the second type is the fuzzy capacity that random contains with probabilities $\tilde{p}$ elements from which it can be random generated. Denote $F S_2 U f \tilde{p} A$.

An example of the fuzzy capacity in itself of the first type is a fuzzy set containing itself. An example of capacity in itself of the second type is a living organism since it contains a program: DNA and RNA.

Definition 3.1.6. Fuzzy partial rcapacity A in itself of the third type is the fuzzy capacity A in itself, which partially random contains with probabilities $\tilde{p}$ itself or random contains with probabilities $\tilde{p}$ elements from which it can be random generated in part or both. Let us denote $FS_3Uf\tilde{p}A$.

All fuzzy rcapacities in fuzzy rself-space are fuzzy capacities in themselves by definition. Fuzzy rcapacities in themselves can appear as fuzzy FSU_{prt} -capacities and ordinary fuzzy capacities. In these cases, the usual fuzzy measures and methods of fuzzy topology are used.

Connection of FSU_{prt} - elements with fuzzy rcapacities in themselves [1].

For example, $FSU_{prt} \begin{matrix} \{\tilde{R}\} \\ p \\ \tilde{g}\{\tilde{R}\} \end{matrix}$ is the fuzzy rcapacity in itself of the second type if $\tilde{g}\{\tilde{R}\}$ is a fuzzy program capable of random generating $\{\tilde{R}\}$.

Consider a third type of fuzzy rcapacity in itself. For example, based on $FSU_{prt} \tilde{x}$

p , where $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$ i.e. n - elements at one point, we

can consider the fuzzy rcapacity FS_3Ufp in itself with m elements from $\tilde{x}$, $m < n$,

which is formed according to the form (2.1), that is, the structure $FSU_{prt} \begin{matrix} \tilde{x} \\ p \\ q \end{matrix}$

contains only m elements, or in forms (2.1.1) - (2.1.5), summarizing it. Fuzzy rcapacities in themselves of the third type can be formed for any other structure, not necessarily FSU_{prt} , only by necessarily reducing the number of elements in the structure, in particular, using form (2.2). Structures more complex than FS_3Uf can be introduced. For example, through a form (2.3), where A is fuzzy compressed (fuzzy fits) in C in the fuzzy compression fuzzy structure B in C (i.e., in the fuzzy

structure $F_{\text{SUprt}}^{\mu \frac{B}{C}}$); or through the forms (2.3.1) - (2.4) and corresponding generalizations of (2.4) on (2.3.1) - (2.3.4), etc.

(2.3.1) - (2.3.4) schematically interpret the fuzzy formation of fuzzy capacity in itself through a pseudo 3-connected form with a 2-connected form. The ideology of FSUprt and FS₃Uf can be used for programming.

Remark 3.1.1. Fuzzy self, in particular, according to a fuzzy form- fuzzy analogue of the form of type (2.1):

$$(1 \parallel m_1, (2 \parallel m_2, 1 \parallel m_3)) \quad (2.1^*),$$

m_i ($i=1,2,3$)— the fuzziness of the indicated positions. For example

- 1) fuzzy forming from element with fuzziness m in the form $\{2,1\}$: $(1 \parallel m, (2, 1))$
- 2) fuzzy forming from element in the form $\{2,1\}$ with fuzziness m : $(1, (2, 1) \parallel m)$
- 3) fuzzy formation of partial self in the form (2.1) with fuzziness m : $(1, (2, 1)) \parallel m$
- 4) It is also possible to generalize the other remaining forms (2.1) – (2.4) to fuzzy forms
- 5) etc.

The energy of fuzzy self- (fuzzy containment) in itself closes on itself.

Math fuzzy self fuzzy [1].

Let's consider FSUprt arithmetic first:

1. Simultaneous random addition of a fuzzy set of elements $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|$

$$\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|) \text{ is carried out using } \text{SUprt } \frac{\tilde{x} + p}{q} = \text{FSUprt} \frac{\{x_1 * \mu_{\tilde{x}}(x_1) + x_2 * \mu_{\tilde{x}}(x_2) + \dots + x_n * \mu_{\tilde{x}}(x_n)\}}{p \cdot q}.$$

$\tilde{x} *$

2. Similarly, for simultaneous multiplication $FSUprt \begin{matrix} p \\ q \end{matrix}$: the notation of the

fuzzy set B with elements $b_{i_1 i_2 \dots i_n} =$

$$(FSUprt \begin{matrix} \{x_{1_{i_1}} * \mu_{\tilde{x}}(x_{1_{i_1}}) * , x_{2_{i_2}} * \mu_{\tilde{x}}(x_{2_{i_2}}) * , \dots , x_{n_{i_n}} * \mu_{\tilde{x}}(x_{n_{i_n}})\} \\ p \\ q \end{matrix})_R$$

for any $\{i_1, i_2, \dots, i_n\}$ without repetitions, $q = St_w^{\{K\}}$, K-set of any $\{k_1 *, k_2 *, \dots, k_n *\}$ without repeating them, k_i -any digit, $i=1, 2, \dots, n$, $R = St_w^{\{i_1+, i_2+, \dots, i_n\}}$, R is the index of the lower discharge (we choose an index on the scale of discharges):

Table II.1. Index on the scale of discharges

index	discharge
n	n
...	...
1	1
,	0
-1	1st digit to the right of the point
-2	2nd digit to the right of the point
...	...

$B +$

Then $FSUprt \begin{matrix} p \\ q \end{matrix}$ gives the final result of simultaneous multiplication. Any

system of calculus can be chosen, in particular binary. The most straightforward functional scheme of the assumed arithmetic-logical device for $FSUprt$ - multiplication:

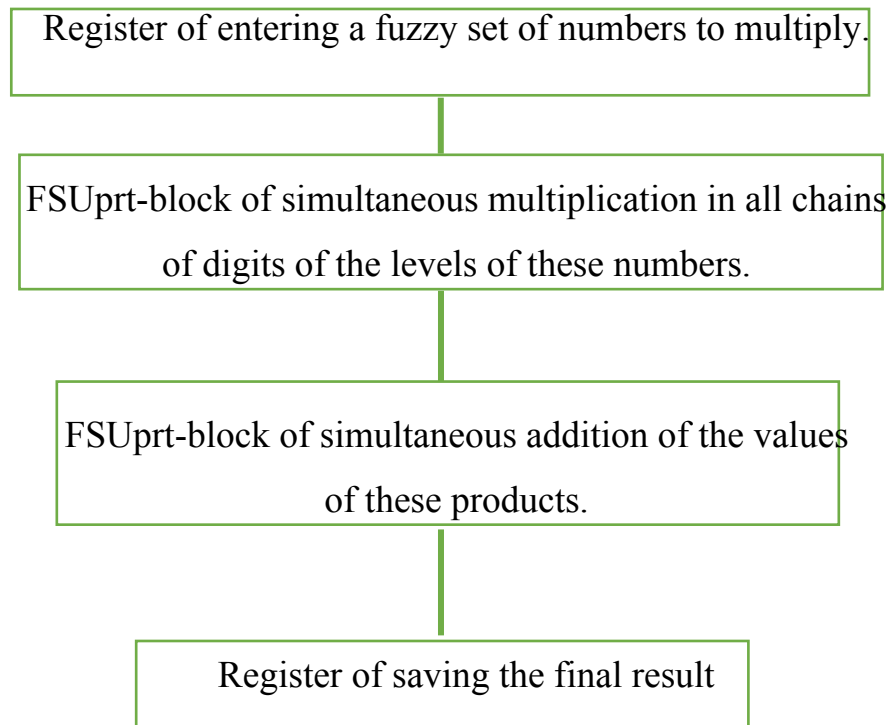


Fig. II.1. The straightforward functional scheme of the assumed arithmetic-logical device for FSUpert-multiplication.

Remark 3.1.2. The algorithm for simultaneously adding a set of numbers can also be implemented as the simultaneous addition of elements of a simultaneously formed composite matrix: a triangular matrix in which the elements of the first row are represented by multiplying the first number from the fuzzy set by the rest: each multiplication is represented by a matrix of multiplying the digits of 2 numbers, taking into account the bit depth, the elements of the second rows are represented by multiplying the second number from the fuzzy set by the ones following it, etc.

3. Similarly for simultaneous execution of various operations: $FSUpert_{p, \tilde{q}}^{\tilde{x}}$, where r

$$\tilde{q} = (q_1 | \mu_{\tilde{q}}(q_1), q_2 | \mu_{\tilde{q}}(q_2), \dots, q_n | \mu_{\tilde{q}}(q_n)) \quad q_i \text{ -an operation, } i = 1, \dots, n.$$

4. Similarly, for the simultaneous execution of various operators: $\text{FSUprt}_{p, r}^{\tilde{F}\tilde{x}}$,
 where $\tilde{F}=(F_1|\mu_{\tilde{F}}(F_1), F_2|\mu_{\tilde{F}}(F_2)|, \dots, F_n|\mu_{\tilde{F}}(F_n)|)$ F_i is an operator, $i = 1, \dots, n$.
5. The arithmetic itself for fuzzy rcapacities in themselves will be similar:
 addition - $FS_1Ufp\{\tilde{x} +\}$, (or $FS_3Ufp\{\tilde{x} +\}$ for the third type),
 multiplication $FS_1Ufp\{\tilde{x} *\}$, $(FS_3Ufp\{\tilde{x} *\})$.
6. Similarly with different operations: $FS_1Ufp\{\tilde{x}\tilde{q}\}$, $(FS_3Ufp\{\tilde{x}\tilde{q}\})$, and with
 different operators: $FS_1Ufp\{\tilde{F}\tilde{x}\}$, $(FS_3Ufp\{\tilde{F}\tilde{x}\})$.

7. $\text{FSUrt}_{p, B}^A$ – the result of the random containment operator. For fuzzy
 sets A, B we have
 $\text{FSUrt}_{p, B}^A = \{A \cup B - A \cap B, D\}$, where D is the random self-(fuzzy set) for
 $A \cap B$. There is the same for structures if it's considered as fuzzy sets.

8. FSUprt- derivative of $g(x_1, x_2, \dots, x_n)$ is $\text{FSUrt}_{p, g(\tilde{x})}^{\left\{ \frac{\partial}{\partial x_{1_i}}, \frac{\partial}{\partial x_{2_i}}, \dots, \frac{\partial}{\partial x_{k_i}} \right\}}$, where $\tilde{x}_0=($
 $g(x_1, x_2, \dots, x_n)$

$x_{1_i}|\mu_{\tilde{x}}(x_{1_i}), x_{2_i}|\mu_{\tilde{x}}(x_{2_i}), \dots, x_{k_i}|\mu_{\tilde{x}}(x_{k_i})$)- any fuzzy set from $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1),$

$x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$ Let's designate $\text{FSUprt} - \frac{\partial^k g(x)}{\partial x_{1_i} \partial x_{2_i} \dots \partial x_{k_i}}$. FSUprt-

integral off $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$ is FSUprt

$\left\{ \int ()dx_{1_i}, \int ()dx_{2_i}, \dots, \int ()dx_{k_i} \right\}$
 p , where $\tilde{x}_0=(x_{1_i}|\mu_{\tilde{x}}(x_{1_i}), x_{2_i}|\mu_{\tilde{x}}(x_{2_i}), \dots,$
 $g(\tilde{x})$

$x_{k_i}|\mu_{\tilde{x}}(x_{k_i})$)- any fuzzy set from $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$.

Let's designate $\text{FSUprt} - \int \dots \int g(\tilde{x})dx_{1_i}dx_{2_i} \dots dx_{k_i}$ -k-multiple fuzzy integral.

FSUprt -lim off $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$ is FSUprt

$$\left\{ \lim_{x_{1_i} \rightarrow a_{1_i}}, \lim_{x_{2_i} \rightarrow a_{2_i}}, \dots, \lim_{x_{k_i} \rightarrow a_{k_i}} \right\}. \text{ Let's designate FSUprt -}$$

$$p$$

$$f(\tilde{x})$$

$$\lim_{x_{1_i} \rightarrow a_{1_i}} \lim_{x_{2_i} \rightarrow a_{2_i}} \dots \lim_{x_{k_i} \rightarrow a_{k_i}} g(x_1, x_2, \dots, x_n). \text{ rself-lim}_{x \rightarrow a} = \text{SUprt } p \lim_{x \rightarrow a}.$$

9. In the case of rself- (random derivatives(designation-rderivatives)), rself is designation for fuzzy self, inclusions of multiple fuzzy rderivatives are obtained. The same is true for rself- (random integrals(designation-fintegrals)): we get inclusions of multiple fuzzy rintegrals.

10. Let's denote rself-(rself- $\tilde{Q}$) through $\text{rself}^2\text{-}\tilde{Q}$, $\text{fS}(n, \tilde{Q}) = \text{rself}-(\text{rself}-(\dots(\text{rself-}\tilde{Q}))) = \text{rself}^n\text{-}\tilde{Q}$ for n-multiple fuzzy self.

frOperator itself [1].

Definition 3.1.7. An operator that transforms $\text{FSUprt } p \tilde{x}$ into any $\text{FS}_i \text{Uf} \mu \{ \tilde{b} \}$, $i =$

2,3 ; where $\{ \tilde{b} \} \subset \{ \tilde{x} \}$; is the roperator itself, roperator is designation for fuzzy operator.

Example. The operator random contains the fuzzy set in itself.

frLim-itself [1].

1. frLim-Sprt, in particular, for partial limits.

For example, the double limit: $\text{frlim } \tilde{G}(x, y) | p_{\tilde{G}}$ corresponds to SUrt

$$\tilde{G}(x, y)$$

$$p_{\tilde{G}}$$

$$(a_1 a_2)$$

Similarly, for lim-FSUprt with n variables.

In the case of lim-itself of FSUprt, for example, for m variables, it suffices to use the forms (2.1) - (2.4), (2.1*) of lim-FSUprt for n variables ($n > m$). The same is

true for integrals of variables m (for example, the double integral over a rectangular region is through the double limit).

The sequence of actions can be "collapsed" into an ordered FSUprt element, and then translate it, for example, into FS_1Ufp - the fuzzy rcapacity in itself. Take the receipt $\frac{\partial^2 u}{\partial x^2}$ as an example. Here is the sequence of steps 1) $\frac{\partial u}{\partial x}$ and 2) $\frac{\partial}{\partial x}(\frac{\partial u}{\partial x})$.

"collapses" into an ordered FSUprt $\left\{ \frac{\partial u}{\partial x}, \frac{\partial}{\partial x}(\frac{\partial u}{\partial x}) \right\}_{p,q}$, which can be translated into the

corresponding FS_1Ufp . The differential operator $FSUprt \left\{ \frac{\partial u}{\partial x}, \frac{\partial}{\partial x}(\frac{\partial u}{\partial x}) \right\}_{p,q}$ - is

interesting too.

Remark 3.1.3. FSUprt-displacement of A from B with probabilities p will be

denote by $\frac{B}{A} p_{FSUprt}$. Then the notation $\frac{C}{D} p_2_{FSUprt} \frac{A}{B} p_1$ is both the FSUprt-containment of

A in B with probabilities p_2 and FSUprt-displacement of D from C with probabilities p_1 simultaneously.

We can consider the concept of FSUprt - element as $FSUprt \frac{A}{B} p$, where A fuzzy fits

with probabilities p in the fuzzy capacity B . Then $FSUprt \frac{B}{B} p$ it will mean $FS_1Uf pB$

About FSUprt and FS_3Uf programming.

The ideology of FSUprt and FS_3Uf can be used for programming. Here are some of the FSUprt programming operators:

1. Simultaneous random assignment of the expressions $\tilde{r}=(r_1|\mu_{\tilde{r}}(r_1), r_2|\mu_{\tilde{r}}(r_2)|, \dots, r_n|\mu_{\tilde{r}}(r_n)|)$ to the variables $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$. This is implemented via $FSUprt \frac{\{\{\tilde{x}\} := \tilde{r}\}}{p,q}$.
2. Simultaneous random checking the fuzzy set of conditions $\tilde{g}=(g_1|\mu_{\tilde{g}}(g_1), g_2|\mu_{\tilde{g}}(g_2)|, \dots, g_n|\mu_{\tilde{g}}(g_n)|)$ for the fuzzy set of expressions $\tilde{B}=(B_1|\mu_{\tilde{B}}(B_1), B_2|\mu_{\tilde{B}}(B_2)|, \dots, B_n|\mu_{\tilde{B}}(B_n)|)$

$\mu_{\tilde{B}}(B_2)|, \dots, x_n | \mu_{\tilde{B}}(B_n)|$ Implemented via FSUprt $IF \left\{ \left\{ \tilde{B} \right\} \left\{ \tilde{g} \right\} \right\} \begin{matrix} p \\ q \end{matrix} then \tilde{Q}$. where $\tilde{Q}$

can be anything.

3. Similarly for loop operators and others.

FS₃Ufp – fuzzy software operators will differ only in that the aggregates $\{\tilde{x}\}, \{\tilde{r}\}, \{\tilde{B}\}, \{\tilde{g}\}$ will be formed from the corresponding FSUprt program operators in form (2.1) or forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*) for more complex operators.

The OS (operating system), the computer's principles, and the modes of operation for this programming are interesting. But this is already the material for the following publications.

Using elements of the mathematics of FSUprt we introduce the concept of

FSUprt–change in physical fuzzy quantity $\tilde{B}$: FSUprt $\left\{ \Delta_1 \tilde{B}, \dots, \Delta_n \tilde{B} \right\} \begin{matrix} p \\ q \end{matrix}$. Then the

mean FSUprt- velocity will be $\tilde{v}_{cpFSUprt}(t, \Delta t) = FSUprt \left\{ \frac{\Delta_1 \tilde{B}}{\Delta t}, \dots, \frac{\Delta_n \tilde{B}}{\Delta t} \right\} \begin{matrix} p \\ q \end{matrix}$. and FSUprt-

velocity at time t: $\tilde{v}_{FSUprt} = \lim_{\Delta t \rightarrow 0} \tilde{v}_{cpFSUprt}(t, \Delta t)$. FSUprt– acceleration $a_{FSUprt} = \frac{d\tilde{v}_{FSUprt}}{dt}$.

When using FSUprt with "target weights", we get, depending on the "target weights", one or another modification, namely, for example, the velocity

$\tilde{v}_{FSUprt}^g$ (with a "target weight" f in the case when two fuzzy velocities $\tilde{v}_1, \tilde{v}_2$ are

involved in the fuzzy set $\{\tilde{v}_1 g, \tilde{v}_2\}$ for $\tilde{v}_{FSUprt}^g = FSUprt \left\{ \tilde{v}_1 g, \tilde{v}_2 \right\} \begin{matrix} p \\ x \end{matrix}$ g – instantaneous

replacement we get an instantaneous substitution $\tilde{v}_1$ by $\tilde{v}_2$ at point x of space at time t_0 .

Consider, in particular, some examples: 1) $FSUprt_{\substack{e \\ p}} \{x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)\}$

describes the fuzzy presence of the same electron e at two different fuzzy points $\{x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)\}$. 2) The nuclei of atoms can be considered as FSUrt elements.

Similarly, the concepts of FSUprt- force and FSUprt- energy, for example,

$E_{p_{FSUprt}}^g = FSUprt_{\substack{p \\ x}} \{E_1, E_2\}$ it would mean the instantaneous random replacement

of fuzzy energy E_1 by E_2 at time t_0 . Two aspects of FSUprt–energy should be distinguished: 1) carrying out the desired "target weight" and 2) fixing the result of it. Do not confuse energy - FSUrt (the node of energies) with FSUprt – energy that generates the node of energies, usually with the "target weights." In the case of ordinary energies, the energy node is carried out automatically.

Remark 3.1.4. FSUprt– elements are all ordinary, but with "target weights," they become peculiar. Here you need the necessary energy to carry them out. As a rule, this energy is at the level of rself. This is natural since it's much easier to manage elements of the k level via the elements of a more structured $k + 1$ level. Let us consider the concepts of capacities of physical objects in themselves. The question arises about the rself-energy of the object. In particular, according to the results of the publication [4] - [16]: « St_B^B will mean $S_1f B$ ». For example, St_{DNA}^{DNA} allows you to reach the level of DNA rself-energy, St_Q^Q allows you to reach the level of rself-energy Q . The law of rself-energy conservation operates already at the level of rself-energy. Also, in addition to capacities in themselves, you can consider the types of fuzzy containment of oneself in oneself: the first type of the fuzzy containment of oneself in oneself: the second type of the fuzzy containment of oneself in oneself: potentially, for example, in the form of programming oneself, the third type is partial fuzzy containment of oneself in themselves—for example, rself-operator, rself-action, whirlwind. A container fuzzy containing itself can be formed by rself-containment, i.e., random containment in oneself. Let us clarify the

concept of the term fuzzy rcapacity in itself: it is a fuzzy rcapacity containing itself potentially. Consider rself-Q, where Q can be anything, including Q=rself; in particular, it can be any action. Therefore, rself-Q is when Q is fuzzy made by itself; it makes itself. There is a partial rself-Q for any Q with partial rself-fulfillment. Let's consider several examples for capacities in themselves: ordinary lightning, electric arc discharge, and ball lightning.

A rself-search of the solution of the equations $f_i(\tilde{x})=0$, where $i=1,2, \dots, n$, $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$. will be realized in

$$SU_{prt} \left\{ f_1(\tilde{x}) = 0? \tilde{x} | \mu_{f(\tilde{x})}(\tilde{x}) = 0, f_2(\tilde{x}) = 0? \tilde{x} | \mu_{f(\tilde{x})}(\tilde{x}) = 0, \dots, f_n(\tilde{x}) = 0? \tilde{x} | \mu_{f(\tilde{x})}(\tilde{x}) = 0 \right\}$$

$\begin{matrix} p \\ a \end{matrix}$

or

$$SU_{prt} \left\{ f_1(\tilde{x}) = 0 | \mu_{f(\tilde{x})}(\tilde{x}) = 0, f_2(\tilde{x}) = 0 | \mu_{f(\tilde{x})}(\tilde{x}) = 0, \dots, f_n(\tilde{x}) = 0 | \mu_{f(\tilde{x})}(\tilde{x}) = 0 \right\}$$

$\begin{matrix} p \\ ?\tilde{x} \end{matrix}$

$\tilde{x}$ acquires more degree of liberty and in this is direct decision. rself-equation for $\tilde{x}$ has its decision for $\tilde{x}$ in direct kind.

The same for $FSU_{prt} \left\{ tasks\tilde{x} \right\}$

$\begin{matrix} p \\ ?\tilde{x} \end{matrix}$

rself-task for x has its decision for x in direct kind. rself-question has its answer for $\tilde{x}$ in direct kind. $Sprt_{(\tilde{o}, \tilde{x})}^{\{t\}}$, where $\{t\}$ - time points set, $(\tilde{o}, \tilde{x})$ - object $\tilde{o}$ in point $\tilde{x}$

from space X , give to enter in necessary time moments. The same for $St_{\tilde{o}}^{\{t\}}$.

$Sprt^{\{God-father, God-son, Holy Spirit\}}$ is three-concept representation, where a is a point

in the connectedness space. FSU_{prt} is also great for working with fuzzy structures,

for example: 1) $FSU_{prt} \left\{ str_A \right\}$
 $\begin{matrix} p \\ \tilde{B} \end{matrix}$ - the fuzzy structure A that random fits into $\tilde{B}$, where

$\tilde{B}$ can be any fuzzy capacity, another fuzzy structure etc. 2) $FSU_{prt} \left\{ str_Q \right\}$
 $\begin{matrix} p \\ \tilde{R} \end{matrix}$ - random

embedding fuzzy structure from Q into $\tilde{R}$. Similarly for random displacement: 1)

$\tilde{B}$
 μ FSUprt -displacement of fuzzy structure A from $\tilde{B}$, 2) μ FSUprt -displacement
 $\tilde{str}A$ $\tilde{str}_Q$

of the fuzzy structure Q from $\tilde{B}$. To work with fuzzy structures, you can introduce

a special operator FCUprt: μ $\{\tilde{str}A\}$ - structures $\tilde{B}$ with the fuzzy structure A,
 $\tilde{B}$

FCUprt μ $\{\tilde{str}_Q\}$ - fuzzy structures $\tilde{R}$ with the fuzzy structure from Q, μ FCUprt
 $\tilde{R}$ $\tilde{str}A$

destructors $\tilde{B}$ from the fuzzy structure A, μ FCUprt destructors $\tilde{B}$ from the fuzzy
 $\tilde{str}_Q$

structure that fuzzy structures Q.

Definition 3.1.8. A fuzzy structure with a second degree of freedom will be called fuzzy complete, i.e., "capable" of reversing itself concerning any of its elements explicitly, but not necessarily in known operators; it can form (create) new special roperators (in particular, special random functions).

In particular, μ $\{\tilde{str}A\}$ is such structure.
 $\{\tilde{str}A\}$

Similarly, for working with models, each is structured by its structure; for example, use FSUprt-groups, FSUprt-rings, FSUprt-fields, FSUprt-spaces, rself-rgroups, rself-rrings, rself-rfields, and rself-rspaces. Like any task, this is also a fuzzy structure of the appropriate fuzzy capacity.

Rself-H (rself-hydrogen), like other rself-particles, does not exist in the ordinary, but all rself-molecules, rself-atoms, and rself-particles are elements of the fuzzy energy space.

Remark 3.1.5. The concept of elements of physics fuzzy FSUprt is introduced for energy space. The corresponding concept of elements of chemistry FSUprt is

introduced accordingly. Examples: 1) $E_{\text{FSUpert}}^g = \text{FSUpert}_{\substack{p \\ x}}^{\{a_1g, a_2\}}$ the energy of instantaneous substitution a_1 by a_2 , where a_1 , and a_2 are chemical elements, g is instant replacement. Similarly,

$$\text{FSUpert}_{\substack{p \\ \text{reaction}}}^{\{\text{chemical elements with "tone can consider for the node of chemical reactions SUprtarget weights"}\}} .$$

The periodic table itself can also be thought of as the Srt – element:

$\text{FSUpert}_{\substack{\text{Mendeleev table} \\ p}}^{\{\text{list of chemical elements}\}}$ The ideology of FSUpert elements allows us to go to the border of the world familiar to us, which allows us to act more effectively.

3.2 Random dynamic fuzzy SUprt – elements

We considered stationary fuzzy SUprt – elements earlier. Here we consider random dynamic fuzzy SUprt – elements (designation - dFSUpert) [1].

Definition 3.2.1. The process of random fitting a fuzzy set of elements $\tilde{x}(t)=(x_1(t)|\mu_{\tilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t)|\mu_{\tilde{x}(t)}(x_n(t)))$. into one point $q(t)$ of space X at time t will be called a random dynamic fSprt– element (fdfSprt). We will denote

$$\text{SUprt}(t)_{\substack{p(t) \\ q(t)}}^{\tilde{x}(t)} .$$

Definition 3.2.2. Random fitting an ordered fuzzy set of elements into one point in space is called a random dynamic ordered SUprt–element.

It is allowed to sum random dynamic FSUpert– elements:

$$\text{SUprt}(t)_{\substack{p(t) \\ q(t)}}^{\tilde{a}(t)} + \text{SUprt}(t)_{\substack{p(t) \\ q(t)}}^{\tilde{b}(t)} = \text{SUprt}(t)_{\substack{p(t) \\ q(t)}}^{\tilde{a}(t) \cup \tilde{b}(t)}$$

Dynamic random containment of oneself.

Definition 3.2.3. Random dynamic fuzzy capacity $Q(t)$ is random fitting into $Q(t)$.

Definition 3.2.4. Dynamic FSUpert-capacity $\text{FSUpert}(t)_{\substack{p(t) \\ Q(t)}}$ is the process of random embedding $R(t)$ into $Q(t)$.

Definition 3.2.5. The dynamic fuzzy capacity $A(t)$ random containing itself as an element of the first type is the process of random containing $A(t)$ in $A(t)$. Denote $F S_1 Uf(t)A(t)$.

Definition 3.2.6. Fuzzy dynamic capacity $C(t)$ in itself of the second type is the process of random containing elements from which it can be random generated. Let's denote $F S_2 Uf(t)C(t)$.

Definition 3.2.7. Fuzzy dynamic partial fuzzy capacity $B(t)$ in itself of the third type is a process of partial random containment of $B(t)$ in itself or elements from which it can be random generated partially or both at the same time. Denote $F S_3 Uf(t)B(t)$.

All dynamic fuzzy capacities in themselves in a dynamic self-space are, by definition, capacities in themselves. Dynamic fuzzy capacity itself can manifest itself as dynamic FSUprt-capacity and ordinary dynamic fuzzy capacity. In these cases, the usual measures and methods of topology are used.

Connection of fuzzy dynamic FSUprt– elements with dynamic random containment of oneself.

Consider third type of dynamic partial random containment of oneself. For

example, based on $F S Uprt(t)_{p(t)}^{\tilde{x}(t)}$, where $\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$, i.e. n – elements at one point $q(t)$, we can consider

the dynamic fuzzy capacity in itself $F S_3 Uf(t)$ with m elements from $\tilde{x}(t)$, $m < n$, which is process formed according to the form (2.1), that is, only m elements from

$\tilde{x}(t)$ are in the structure $F S Uprt(t)_{p(t)}^{\tilde{x}(t)}$.

Dynamic random containment of oneself of the third type can be formed for any other structure, not necessarily FSUprt, only through the obligatory reduction in the number of elements in the structure. In particular, using the forms (2.1.1) -

(2.4), (2.1*) and analogs of forms (2.1.1) – (2.4) by type (2.1*). It is possible to introduce structures more complex than $FS_3Uf(t)$.

Fuzzy dynamic math random itself.

1. The process of simultaneous random addition of a fuzzy set of elements

$\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$ realized by

$$FSUprt(t) \frac{x(\tilde{t}) + p(t)}{w(t)}.$$

2. By analogy, for simultaneous random multiplication: $FSUprt(t) \frac{x(\tilde{t}) * p(t)}{w(t)}$

3. Similarly for simultaneous execution of various operations:

$$FSUprt(t) \frac{x(\tilde{t})q(\tilde{t})}{p(t)}, \text{ where } q(\tilde{t}) = (q_1(t) | \mu_{q(\tilde{t})}(q_1(t)), q_2(t) | \mu_{q(\tilde{t})}(q_2(t)), \dots, q_n(t) | \mu_{q(\tilde{t})}(q_n(t)))$$

$\mu_{q(\tilde{t})}(q_n(t))$), $q_i(t)$ -an operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous random execution of various operators:

$$FSUprt(t) \frac{\tilde{F}(t)x(\tilde{t})}{p(t)} \text{ where } \tilde{F}(t) = (F_1(t) | \mu_{\tilde{F}(t)}(F_1(t)), F_2(t) | \mu_{\tilde{F}(t)}(F_2(t)), \dots, F_n(t) | \mu_{\tilde{F}(t)}(F_n(t)))$$

$\mu_{\tilde{F}(t)}(F_n(t))$), $F_i(t)$ is an operator, $i = 1, \dots, n$.

5. Dynamic arithmetic random itself for containments of oneself will be

similar: dynamic random addition - $FS_1Uf(t)p(t)\{x(\tilde{t}) +\}$, (or $FS_3Uf(t)p(t)\{x(\tilde{t}) +\}$ for the third type), dynamic multiplication $FS_1Uf(t)p(t)\{x(\tilde{t}) *\}$, (or $FS_3Uf(t)p(t)\{x(\tilde{t}) *\}$)

6. Similarly with different fuzzy operations: $FS_1Uf(t)p(t)\{x(\tilde{t})q(\tilde{t})\}$, (or $FS_3Uf(t)p(t)\{x(\tilde{t})q(\tilde{t})\}$) and with different fuzzy operators:

$FS_1Uf(t)p(t)\{\tilde{F}(t)x(\tilde{t})\}$, (or $FS_3Uf(t)p(t)\{\tilde{F}(t)x(\tilde{t})\}$).

7. $FSUprt(t) \frac{\tilde{A}(t)}{p(t)}$ gives the result $\tilde{B}(t)$

$$\frac{A(t)}{FSUrt(t)} \frac{p(t)}{B(t)} =$$

$\{A(t) \cup B(t) - A(t) \cap B(t), D(t)\}$ for fuzzy sets $A(t), B(t)$, where $D(t)$ is rself- (fuzzy set) for $A(t) \cap B(t)$. The same is true for structures if they are treated as fuzzy sets.

8. Similarly, for dynamic FSUprt -derivatives, dynamic FSUprt -integrals, dynamic FSUprt -lim, dynamic rself- (fuzzy derivatives), dynamic rself- (fuzzy integrals)
9. Denote dynamic rself-(dynamic rself-Q(t)) through dynamic rself²-Q(t) ,
rgS(t)(n,Q(t))= dynamic rself-(dynamic rself-(...(dynamic rself-Q(t)))) =
dynamic rselfⁿ-Q(t) for n-multiple dynamic rself.

Remark 3.2.1. The dynamic FSUprt -displacement of A(t) from B(t) will be denote

$$\frac{B(t)}{A(t)} \frac{C(t)}{D(t)} \frac{A(t)}{B(t)} \text{ by } \frac{p(t)}{FSUprt(t)} \text{ . Then the notation } \frac{p_2(t)}{FSUprt(t)} \frac{p_1(t)}{A(t)} \text{ is dynamic FSUprt -}$$

containment of A(t) in B(t) and dynamic FSUprt -displacement of D(t) from C(t) simultaneously. We can consider the concept of dynamic FSUprt - element as

$$\frac{A(t)}{FSUprt(t)} \frac{p(t)}{B(t)} \text{ , where } A(t) \text{ fits in fuzzy dynamic fuzzy capacity } B(t) \text{ . Then}$$

$$\frac{B(t)}{FSUprt(t)} \frac{p(t)}{B(t)} \text{ will mean } FS_1 Uf(t) \frac{p(t)}{B(t)} \frac{A(t)}{A(t)} \text{ . } \frac{p(t)}{FSUprt(t)} \text{ denotes the dynamic}$$

$$\text{random expelling fuzzy } A(t) \text{ oneself out of oneself, } \frac{A(t)}{A(t)} \frac{A(t)}{A(t)} \frac{p_2(t)}{FSUprt(t)} \frac{p_1(t)}{A(t)} \text{ —}$$

simultaneous dynamic random containment fuzzy A(t) of oneself in oneself and

$$\text{dynamic random expelling fuzzy } A(t) \text{ oneself out of oneself. } \frac{A(t)}{A(t)} \frac{p(t)}{FSUprt(t)} \text{ will be}$$

called dynamic random anti- (fuzzy capacity) from oneself. For example, “white hole” in physics is such simple anti-(fuzzy capacity). The concepts of “white hole”

and “black hole” were formulated by the physicists based on the subject of physics –the usual energies level. Mathematics allows you to deeply find and formulate the concept of singular points in the Universe based on the levels of more subtle energies. The experiments of the 2022 Nobel laureates Asle Ahlen, John Clauser, Anton Zeilinger correspond to the concept of the Universe as a capacity in itself. The energy of rself-containment in itself is closed on itself.

Hypothesis: the containment of the galaxy in oneself as a spiral curl and the expelling out of oneself defines its existence. A rself- capacity in itself as an element A is the god of A, the rself-capacity in itself as an element the globe—the god of the globe, the rself-capacity in itself as an element man-- the god of the man, the rself-capacity in itself as an element of the universe-- the god of the universe, the containment of A into oneself is spirit of A, the containment of the Earth into oneself is spirit of Earth, the containment of the man into oneself is spirit of the man (soul), the containment of the universe into oneself is spirit of the universe. We may consider the following axiom: any fuzzy capacity is the fuzzy capacity of oneself. This is for each energy fuzzy capacity.

Remark 3.2.2. With the help of dynamic FSUp_{prt} -elements, the concepts of dynamic FSUp_{prt} - force, dynamic FSUp_{prt} – energy are introduced. For example

$$\underset{prst}{FUE(t)} \underset{p(t)}{\tilde{g}} = \underset{p(t)}{FSUp_{prt}(t)} \underset{\tilde{w}(t)}{\{FUE_1(t)\tilde{g}, FUE_2(t)\}} . \text{ will mean the process of}$$

instantaneous replacement $\tilde{g}$ of energy $FUE_1(t)$ by $FUE_2(t)$ at time t. Similarly, using $FS_i Uf(t)_{p(t)}$, the concepts of $FS_i Uf(t)_{p(t)}$ -force, $FS_i Uf(t)_{p(t)}$ --energy, $i=1,2,3$, and etc are introduced.

Remark 3.2.3. It is the random containment of oneself in oneself that can “give birth” to the rcapacities in itself – that is what rself-organization is.

Remark 3.2.4. $\frac{B(t)}{FSUp_{prt}(t) p(t)}$ can increase rself- level of $\frac{B(t)}{FSUp_{prt}(t) p(t)}$.

Remark 3.2.5. For example, the roperator itself is $FS_1Uf(t)p(t)$.

Remark 3.2.6. May be considered the following derivatives: $\frac{A(t)}{dFSUp_{prt}(t) p(t)}$, $\frac{B(t)}{dt}$, $\frac{A(t)}{d p FSUp_{prt}(t)}$, $\frac{C(t)}{dp_2(t)FSUp_{prt}(t)p_1(t)}$, $\frac{A(t)}{dFS_iUf(t)p(t)}$, $i=1,2,3$.

Remark 3.2.7. It is the random containment of oneself in itself as an fuzzy element that can be interpreted as random dynamic fuzzy capacities in itself.

Remark 3.2.8. Not every fuzzy capacity random containing itself as an element will manifest itself as a sedentary fuzzy capacity or fuzzy capacity.

About dynamic $FSUp_{prt}$ and $FS_3Uf(t)$ programming [1].

The ideology of dynamic $FSUp_{prt}$ and $FS_3Uf(t)$ can be used for programming:

1. The process of simultaneous random assignment of the fuzzy expressions $r(t)=(r_1(t)|\mu_{r(t)}(r_1(t)), r_2(t)|\mu_{r(t)}(r_2(t)), \dots, r_n(t)|\mu_{r(t)}(r_n(t)))$ to the fuzzy variables $x(t)=(x_1(t)|\mu_{x(t)}(x_1(t)), x_2(t)|\mu_{x(t)}(x_2(t)), \dots, x_n(t)|\mu_{x(t)}(x_n(t)))$. This is implemented via $\frac{\{x(t)\} := \{r(t)\}}{SU_{prt}(t) p(t) w(t)}$.
2. The process of simultaneous random checking the fuzzy set of conditions $g(t)=(g_1(t)|\mu_{g(t)}(g_1(t)), g_2(t)|\mu_{g(t)}(g_2(t)), \dots, g_n(t)|\mu_{g(t)}(g_n(t)))$ for the fuzzy set of expressions $B(t)=(B_1(t)|\mu_{B(t)}(B_1(t)), B_2(t)|\mu_{B(t)}(B_2(t)), \dots, B_n(t)|\mu_{B(t)}(B_n(t)))$.

$\mu_{\tilde{B}(t)}(B_2(t)), \dots, B_n(t) | \mu_{\tilde{B}(t)}(B_n(t)) |$. Implemented via F

$$\text{FSUpert}(t) \quad \text{IF } \left\{ \left\{ \tilde{B}(t) \right\} \left\{ \tilde{g}(t) \right\} \right\} \text{ then } \tilde{Q}(t)$$

$$p(t) \quad \text{where } \tilde{Q}(t) \text{ can be anything.}$$

$$\tilde{w}(t)$$

3. Similarly for fuzzy loop operators and others.

$FS_3 Uf(t)p(t)$ – fuzzy rsoftware operators will differ only just because aggregates $\tilde{x}(t), \tilde{r}(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding processes by FSUpert-program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

3.3 FSUpert – elements for continual fuzzy sets

Earlier, we considered finite-dimensional discrete FSUpert-elements and rself- (fuzzy capacities) in itself as an element. Here we believe some continual FSUpert-elements and continual rself- (fuzzy capacities) in themselves as an element [1].

Definition 3.3.1. The fuzzy set of continual elements $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$ at one point w of space X with probabilities $p = (p_1 | \mu_{\tilde{p}}(p_1), p_2 | \mu_{\tilde{p}}(p_2), \dots, p_n | \mu_{\tilde{p}}(p_n))$ will be called continual FSUpert – element, and such a point in space will be called fuzzy rcapacity of the continual FSUpert – element. We will denote $\text{FSUpert} \tilde{p}_w$.

Definition 3.3.2. An ordered fuzzy set of continual elements at one point in space with probabilities p is called an ordered continual FSUpert–element.

It's allowed to sum continual FSUpert – elements: $\text{FSUpert} \tilde{p}_w + \text{FSUpert} \tilde{r}_w =$

$\text{FSUpert} \tilde{p} \cup \tilde{r}_w$, where some or any elements may be ordered elements.

Definition 3.3.3. The continual rself- (fuzzy capacity) A in itself as an element of the first type is the fuzzy capacity random containing with probabilities p itself as an element. Denote $FS_1 UfAp$.

Definition 3.3.4. The ordered continual rself- (fuzzy capacity) A in itself as an element of the first type is the ordered fuzzy capacity random containing with probabilities p itself as an element. Denote $\overrightarrow{FS_1 UfAp}$.

For example, $fS_{\infty}^{+}=(\sin^{\infty}|\mu_{\sin^{\infty}}(\sin^{\infty}))$ is of this type. It denotes continual ordered rself- (fuzzy capacities) in itself as an element of following type—the fuzzy range of simultaneous “activation” of fuzzy numbers from $[-1,1]$ in mutual directions:

$\uparrow I \downarrow_{-1}^1$. Also consider the following elements: $, FS_{\infty}^{-}=(\sin^{-\infty}|\mu_{\sin^{-\infty}}(\sin^{-\infty}))$ - $\downarrow I \uparrow_{-1}^1$, $, FT_{\infty}^{+}=(tg^{\infty}|\mu_{tg^{\infty}}(tg^{\infty}))$ - $\uparrow I \downarrow_{-\infty}^{\infty}$, $FT_{\infty}^{-}=(tg^{-\infty}|\mu_{tg^{-\infty}}(tg^{-\infty}))$ - $\downarrow I \uparrow_{-\infty}^{\infty}$,

don't confuse with values of these functions. Such elements can be summarized. For example: $aFS_{\infty}^{+}+bFS_{\infty}^{-}=(a-b)fS_{\infty}^{+} = (b-a)FS_{\infty}^{-}$, if FS_{∞}^{+} and FS_{∞}^{-} have the same fuzzy structure of the fuzzy range from $[-1,1]$.

Definition 3.3.5. The continual rself-(fuzzy capacity) A in itself, as an element of the second type, is the fuzzy capacity random containing with probabilities p fuzzy elements from which it can be generated. Let's denote $FS_2 UfAp$.

An example of continual rself-capacity in itself as an element of the second type is a living organism since it contains the programs: DNA and RNA.

Definition 3.3.6. Partial continual rself- (fuzzy capacity) A in itself as an element of the third type is called continual (rself- fuzzy capacity) in itself as an element that partially random contains with probabilities p itself or random contains with probabilities p fuzzy elements from which it can be generated in part or both simultaneously. Denote $FS_3 UfAp$.

Also, may be considered operators for them. For example:

$$gS_{\infty}^{+}(t-t_0) = \begin{cases} FS_{\infty}^{+}, & t = t_0 \\ 0, & t \neq t_0 \end{cases}$$

You can set the rself- vector: $\uparrow \begin{pmatrix} q|p_1 \\ d|p_2 \\ c|p_3 \end{pmatrix} \downarrow$

All continual capacities in rself-space are continual rself-capacities in itself as an element by definition. The continual rself-capacities in itself as an element may appear as continual FSUp_{rt}- capacities and usual continual random capacities. In these cases, there are used typical measure and topology methods.

The connection of continual FSUp_{rt} – elements with continual rself- (fuzzy capacities) in themselves as an element.

Consider a third type of continual rself- (fuzzy capacity) in itself as an element. For

example, based on $\text{FSUp}_{rt} p_{\tilde{w}}$, where $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$, i.e. x_i -

continual elements at one point, $i=1, 2, \dots, n$. The continual rself- (fuzzy capacity) in itself as an element with m continual elements from $\tilde{x}$, at $m < n$, can be

considered as FS_3Uf , which is formed by the form (2.1), i.e., only m continual

elements are located in the structure $\text{FSUp}_{rt} p_{\tilde{w}}$. Continual rself- (fuzzy capacities) in

itself as an element of the third type can be formed for any other structure, not necessarily FSUp_{rt}, only by obligatory reducing the number of continual elements in the structure. In particular, using the forms (2.1.1) – (2.4). Structures more complex than FS_3Uf can be introduced.

Mathematics random itself for continual FSUp_{rt}-elements [1].

1. Simultaneous random addition of the continual elements of the fuzzy set

$\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$ is implemented using $\text{FSUp}_{rt} p_{\tilde{w} \cup}$.

2. By analogy, for simultaneous random multiplication: $\text{FSUp}_{rt} p_{\tilde{w} \cap}$.

3. Similarly, for simultaneous random execution of various operations: FSUp_{rt}

$\tilde{x}\tilde{q}$
 $p_{\tilde{w}}$, where $\tilde{q}=(q_1|\mu_{\tilde{q}}(q_1), q_2|\mu_{\tilde{q}}(q_2)|, \dots, q_n|\mu_{\tilde{q}}(q_n))$, q_i -an operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous random execution of various operators:

$\tilde{F}\tilde{x}$
 $FSUprt_p$, where $\tilde{F}=(F_1|\mu_{\tilde{F}}(F_1), F_2|\mu_{\tilde{F}}(F_2)|, ..., F_n|\mu_{\tilde{F}}(F_n))$, F_i is an operator, $i =$
 w

1, ..., n.

5. For continual rself-rcapacities in themselves as an element will be similar:

random addition - $FS_1Ufp\{\tilde{x}+\}$, (or $FS_3Ufp\{\tilde{x}+\}$ for the third type), random
multiplication $FS_1Ufp\{\tilde{x}*\}$, (or $FS_3Ufp\{\tilde{x}*\}$).

6. Similarly with random different operations: $FS_1Ufp\{\tilde{x}\tilde{q}\}$, $(FS_3Ufp\{\tilde{x}\tilde{q}\})$,
and with random different operators: $FS_1Ufp\{\tilde{F}\tilde{x}\}$, $(FS_3Ufp\{\tilde{F}\tilde{x}\})$.

A
7. $FSUrt_p$ – is the result of the random containment operator. For fuzzy sets
 B

A, B we have

A
 $FSUrt_p = \{A \cup B - A \cap B, D\}$, where D is rself-(fuzzy set) for $A \cap B$. The
 B
same is true for structures if they are treated as fuzzy sets.

Remark 3.3.1. FSUprt-displacement of A from B with probabilities p will be

denoted by $\frac{B}{A}FSUprt$. Then the notation $\frac{C}{D}\frac{A}{B}FSUprt$ is FSUprt-containment of A in B

with probabilities p_1 , and FSUprt-displacement of D from C with probabilities p_2 ,
simultaneously. Three in one is

$\{\infty \text{ in itself, an element that is not anyone's element, } 0 \text{ out oneself}\}$
 $FSUrt$ p , a-

point space connectedness.

We can consider the concept of a continual FSUprt-element as $\frac{A}{B}FSUrt_p$, where A

random fits with probabilities p in continual fuzzy capacity B. Then $\frac{B}{B}FSUrt_p$ will

mean FS_1UfpB .

These elements are used for FSUp_{rt}-coding, FSUp_{rt}-translation, random coding rself, and random translation rself for networks, which is suitable for electric current of ultrahigh frequency. More complex elements can be considered as continual sets of numbers with their " activation " in mutual directions. For example, ranges of function values, particularly those representing the shape of lightning. Differential geometry can be applied here. Also, n-dimensional elements can be considered. The space of such elements is Banach space if we introduce the usual norm for functions or vectors. We call this space - FSUelb-space. Then we introduce the scalar product for functions or vectors and get the Hilbert space. We call this space FSUelh-space. In particular, one can try to describe some processes with these elements by differential equations and use methods from [18]. You can also try to optimize and research some processes with these elements using the techniques from [19]. Let's introduce operators for transforming fuzzy capacity to rself- (fuzzy capacity) in itself as an element: $FQ_1SUfp(A)$

transforms A to F_1SUfpA , $FQ_0SU(A)$ transforms A to $\overset{A}{p}FSUp_{rt}, FSUOfp(A)$

transforms A to $\uparrow FUA \downarrow$, $\uparrow FUA \downarrow$ -- ordered rself-fuzzy capacity in itself as an element of simultaneous "activation" of all elements of A in mutual directions.

For example, $FSUOf\mu([-1,1]) = FS_{\infty}^+$, $FSUOf\mu([1,-1]) = FS_{\infty}^-$, $FSUOf\mu([-\infty,\infty]) = FT_{\infty}^+$, $FSUOf\mu([\infty,-\infty]) = FT_{\infty}^-$. The operator $(FQ_1SUf\mu(A))^2$ increases rself- (fuzzy level) for A: it transforms rself-fA = $F_1SUf\mu A$ to $rself^2-F\mu A$, $(FQ_1SUf\mu(A))^n \rightarrow rself^n-F\mu A$, $e^{FQ_1SUf\mu(A)} \rightarrow e^{F\mu self} - F\mu A$. Let us introduce the following

notations: $\overset{A}{p}FSUp_{rt}$ by $2Fp_{self-fA}$, $FSUp_{rt} \overset{(A,A)}{p}$ by $2Fp_{self-fA}$, $FSUp_{rt} \overset{A}{p}$ by $\overset{(A,A)}{p}$

$1/2Fp_{self-fA}$, $FSUp_{rt} \overset{A}{p}$ by $qFp_{self-fA}$, $\overset{A}{p}FSUp_{rt}$ by $q()Fp_{self-fA}$, q-any $q(A)$

operator, $\begin{matrix} A \\ p \end{matrix}$ FSUp_{prt} by NFp_{self-fA}, $q_i = A$, $i = 1, \dots, N$; $\begin{matrix} A & A \\ p_1 \text{FSUp}_{prt} p_1 \end{matrix}$ by r
 $(q_1, \dots, q_N)$ $\begin{matrix} A \\ A \end{matrix}$

$p_1 \text{self-fA} - r p_1 \text{oself-fA}$, $\begin{matrix} q_2(A) \\ p_1 \end{matrix}$ FSUp_{prt} $\begin{matrix} A \\ p_1 \end{matrix}$ by $q_1 r p_1 \text{self-fA} - \begin{pmatrix} q_3() \\ q_2() \end{pmatrix} r p_1 \text{oself-fA}$,
 $\begin{matrix} q_3(A) \\ q_1(A) \end{matrix}$

$\begin{matrix} A \\ p \end{matrix}$ FCUp_{prt} by 2Crp_{self-fA}, FCUp_{prt} $\begin{matrix} (A,A) \\ p \end{matrix}$ by 2Crp_{self-fA}, FCUp_{prt} $\begin{matrix} A \\ \mu \end{matrix}$ by
 (A,A) $\begin{matrix} A \\ (A,A) \end{matrix}$

$1/2 \text{Crp}_{\text{self-fA}}$, $fCt_{q(A)}^A$ by $qCf_{\mu \text{self-fA}}$, $\begin{matrix} A \\ p \end{matrix}$ FCUp_{prt} by $q()$ Crp_{self-fA}, q -any
 $q(A)$

operator, $\begin{matrix} A \\ p \end{matrix}$ FCUp_{prt} by NCrp_{self-fA}, $q_i = A$, $i = 1, \dots, N$; $\begin{matrix} A & A \\ p_1 \text{FCUp}_{prt} p_1 \end{matrix}$ by Cr
 $(q_1, \dots, q_N)$ $\begin{matrix} A \\ A \end{matrix}$

$p_1 \text{self-fA} - \text{Cr} p_1 \text{oself-fA}$, $\begin{matrix} q_2(A) \\ p_1 \end{matrix}$ FCUp_{prt} $\begin{matrix} A \\ p_1 \end{matrix}$ by $q_1 \text{Cr} p_1 \text{self-fA} - \begin{pmatrix} q_3() \\ q_2() \end{pmatrix} \text{Cr} p_1 \text{oself-fA}$,
 $\begin{matrix} q_3(A) \\ q_1(A) \end{matrix}$

$\begin{matrix} A \\ A \end{matrix}$ FSU2prtp = (rp_{self-fA}, rp_{self-fA}), FSUNprtp = $\begin{matrix} A \\ (q_1, \dots, q_N) \end{matrix}$, $q_i = \text{rp}_{\text{self-fA}}$, $i =$
 $\begin{matrix} A \\ A \end{matrix}$

$\begin{matrix} A \\ B \end{matrix}$ FSUp_{prt} $\begin{matrix} A \\ p \end{matrix}$ $\begin{matrix} B \\ A \end{matrix}$. Can be considered $Q(\begin{matrix} A & A \\ p_1 \text{FSUp}_{prt} p_1 \end{matrix})$, Q-
 $1, \dots, N$. rp_{self}(FSUp_{prt} $\begin{matrix} A \\ B \end{matrix}$) = FSUp_{prt} $\begin{matrix} A \\ B \end{matrix}$

any operator.

3.4 The dynamic random continual fuzzy Sprt – elements

Definition 3.4.1. The process of fuzzy containing with probabilities $p(t)$ in the fuzzy set of continual elements $\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$ at one point w of the space X at time will be called the dynamic

random continual fuzzy Sprt – element. We will denote $\begin{matrix} \tilde{x}(t) \\ \text{FSUp}_{prt}(t) \end{matrix} \begin{matrix} p(t) \\ q(t) \end{matrix}$.

Definition 3.4.2. The process of fuzzy containing with probabilities $p(t)$ an ordered fuzzy set of continual elements at one point in space is called dynamic random continual ordered fuzzy Sprrt – element.

It is allowed to sum dynamic random continual fSprrt– elements:

$$\text{FSUprrt}(t)_{p(t)} \frac{a(t)}{q(t)} + \text{FSUprrt}(t)_{p(t)} \frac{b(t)}{q(t)} = \text{FSUprrt}(t)_{p(t)} \frac{a(t) \cup b(t)}{q(t)}$$

Dynamic continual random containment of oneself in oneself as an element.

Definition 3.4.3. The dynamic random continual fuzzy capacity $Q(t)$ is called the process of random embedding in $Q(t)$.

Definition 3.4.4. The dynamic random continual fSprrt-capacity $\text{FSUprrt}(t)_{p(t)} \frac{R(t)}{Q(t)}$ is called the process of random embedding $R(t)$ in $Q(t)$.

Definition 3.4.5. The dynamic random containment fuzzy continual $A(t)$ of oneself of the first type is the process of random putting $A(t)$ into $A(t)$. Denote $FS_1 Uf(t)p(t)A(t)$.

Definition 3.4.6. We will call a dynamic random embedding of a fuzzy continual $C(t)$ into itself a dynamic random embedding of the second type if it random contains dynamic continual elements from which it can be random generated. Denote $FS_2 Uf(t)p(t)C(t)$.

Definition 3.4.7. The partial dynamic random containment continual fuzzy $B(t)$ of oneself of the third type is the process of partial random embedding continual fuzzy $B(t)$ into oneself or random contains dynamic fuzzy continual elements from which it can be random generated in part or both simultaneously. Denote $FS_3 Uf(t)p(t)B(t)$.

The connection of dynamic random continual fSprrt– elements with dynamic random containment of oneself in oneself as an element.

Let us consider the partial dynamic continual random containment of oneself in

oneself as an element of the third type. For example, based on $FSUprt(t) \begin{matrix} x(\widetilde{t}) \\ p(t) \\ w(t) \end{matrix}$,

where $x(\widetilde{t})=(x_1(t)|\mu_{x(\widetilde{t})}(x_1(t)), x_2(t)|\mu_{x(\widetilde{t})}(x_2(t))|, \dots, x_n(t)|\mu_{x(\widetilde{t})}(x_n(t))|)$, i.e. n - continual elements at one point $w(t)$, one can consider the fuzzy dynamic containment $FS_3Uf(t)p(t)$ of oneself in oneself as an element with m continual elements from $x(\widetilde{t})$, $m < n$, which is a process that is necessary form according to the form (2.1), i.e. only m continual elements from $x(\widetilde{t})$ are located in the structure

$FSUprt(t) \begin{matrix} x(\widetilde{t}) \\ p(t) \\ w(t) \end{matrix}$. Dynamic continual fuzzy containments of oneself in oneself as an

element of the third type can be formed for any other structure, not necessarily $FSUprt$, only by necessarily reducing the number of continual elements in the structure. In particular, with the help of forms (2.2.1.1) – (2.4). It is possible to introduce structures more complex than $FS_3Uf(t)p(t)$.

Dynamic random continual mathematics rself [1].

1. The process of simultaneous random addition of the fuzzy set of continual elements $x(\widetilde{t})=(x_1(t)|\mu_{x(\widetilde{t})}(x_1(t)), x_2(t)|\mu_{x(\widetilde{t})}(x_2(t))|, \dots, x_n(t)|\mu_{x(\widetilde{t})}(x_n(t))|)$ is

$x(\widetilde{t}) \cup$
realized by $FSUprt(t) \begin{matrix} p(t) \\ w(t) \end{matrix}$.

2. By analogy, for simultaneous random multiplication: $FSUprt(t) \begin{matrix} x(\widetilde{t}) \cap \\ p(t) \\ w(t) \end{matrix}$.

3. Similarly for simultaneous random execution of various operations:

$x(\widetilde{t})q(\widetilde{t})$
 $FSUprt(t) \begin{matrix} p(t) \\ w(t) \end{matrix}$, where $q(\widetilde{t})=(q_1(t)|\mu_{q(\widetilde{t})}(q_1(t)), q_2(t)|\mu_{q(\widetilde{t})}(q_2(t))|, \dots,$

$q_n(t)|\mu_{q(\widetilde{t})}(q_n(t))|)$, $q_i(t)$ -an operation, $i = 1, \dots, n$.

4. Similarly, for the simultaneous random execution of various operators:

$$FSU_{prt}(t) \frac{F(t)x(t)}{p(t)}, \text{ where } F(t) = (F_1(t)|\mu_{F(t)}(F_1(t)), F_2(t)|\mu_{F(t)}(F_2(t)), \dots, F_n(t)|\mu_{F(t)}(F_n(t))|), F_i(t) \text{ is an operator, } i = 1, \dots, n.$$

5. The dynamic arithmetic rself for the dynamic continual random

containments of oneself will be similar: dynamic random addition -

$$FS_1 Uf(t)p(t)\{x(t) \cup\}, (\text{or } FS_3 Uf(t)p(t)\{x(t) \cup\} \text{ for the third type}),$$

dynamic random multiplication $FS_1 Uf(t)p(t)\{x(t) \cap\}, (\text{or}$

$$FS_3 Uf(t)p(t)\{x(t) \cap\}.$$

6. Similarly with different random operations: $FS_1 Uf(t)p(t)\{x(t)q(t)\}, (\text{or}$

$$FS_3 Uf(t)p(t)\{x(t)q(t)\}), \text{ and with different random operators:}$$

$$FS_1 Uf(t)p(t)\{F(t)x(t)\}, (\text{or } FS_3 Uf(t)p(t)\{F(t)x(t)\}).$$

7. $FSU_{prt}(t) \frac{A(t)}{p(t)}$ gives the result

$$\frac{A(t)}{B(t)} \\ FSU_{rt}(t) \frac{A(t)}{p(t)} = \frac{B(t)}{B(t)}$$

$\{A(t) \cup B(t) - A(t) \cap B(t), D(t)\}$ for fuzzy sets $A(t), B(t)$, where $D(t)$ is rself- (fuzzy continual set) for $A(t) \cap B(t)$. The same is true for structures if they are treated as fuzzy continual sets.

8. Similarly, for dynamic random fSprt-derivatives, dynamic random fSprt-integrals, dynamic random fSprt-lim, dynamic rself- (fuzzy derivatives), dynamic rself- (fuzzy integrals).

9. Denote dynamic continual rself- (dynamic continual rself-Q(t)) through dynamic continual rself²-Q(t), $fS(t)(n, Q(t)) = \text{dynamic continual rself-} (\text{dynamic continual rself-}(\dots(\text{dynamic continual rself-Q(t)}))) = \text{dynamic continual rself}^n\text{-Q(t)}$ for n-multiple dynamic continual rself.

Remark 3.4.1. The dynamic random continual fSprt-displacement of $A(t)$ from $B(t)$

with probabilities $p(t)$ will be denote through $p(t)$ FSUp_{prt}(t). Then the notation

$p_2(t)$ FSUp_{prt}(t) $p_1(t)$ is dynamic random continual fSprt- embedding of $A(t)$ in $B(t)$ and

dynamic random continual fSprt-displacement of $D(t)$ from $C(t)$ simultaneously.

We can consider the concept of dynamic random continual fSprt- element as

$\widetilde{A}(t)$ FSUp_{prt}(t) $p(t)$, where $\widetilde{A}(t)$ random fits in dynamic continual fuzzy capacity $\widetilde{B}(t)$.

Then FSUp_{prt}(t) $p(t)$ it will mean $FS_1 Uf(t)p(t)B(t)$. $p(t)$ FSUp_{prt}(t) denotes the

dynamic random continual displacement of fuzzy $A(t)$ from itself with

probabilities $p(t)$, $p_1(t)$ FSUp_{prt}(t) $p_1(t)$ —simultaneous dynamic random continual

containment of oneself $A(t)$ in oneself $A(t)$ with probabilities $p_1(t)$ and dynamic continual random expelling oneself $A(t)$ out of oneself $A(t)$ with probabilities $p_1(t)$.

$p(t)$ FSUp_{prt}(t) will be called dynamic random continual anti fuzzy recapacity from

itself with probabilities $p(t)$.

Connection of dynamic random continual fSprt– elements with target weights with dynamic continual random containment of oneself with target weights.

Consider a third type of dynamic partial random containment of oneself with target

weights $\widetilde{g}(t)$. For example, based on FSUp_{prt}(t) $p(t)$, where $\widetilde{x}(t)=(x_1(t)|$

$\mu_{\widetilde{x}(t)}(x)|, \dots, x_n(t)|\mu_{\widetilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\widetilde{x}(t)}(x_2(t) (x_n(t)))$, i.e. n fuzzy continual elements with target weights $\widetilde{g}(t)$ at one point $\widetilde{w}(t)$, we can consider the dynamic random

containment $FS_3Uf(t)x(t)_{p(t)}\widetilde{g}(t)$ of oneself with target weights with m fuzzy continual elements with target weights $\widetilde{g}(t)$ from $x(t)$, $m < n$, which is the random process of formation according to the form (2.1), i.e., only m fuzzy continual elements with target weights $\widetilde{g}(t)$ from $x(t)$ are located in the structure

$FS_3Uf(t)x(t)_{p(t)}\widetilde{g}(t)$. Dynamic random containments of oneself with target weights of the third type can be formed for any other structure, not necessarily FSUp_{rt}, only by reducing the number of fuzzy continual elements with target weights in the structure. In particular, using the form (2.1.1.1) – (2.4). Structures more complex than $FS_3Uf(t)x(t)_{p(t)}\widetilde{g}(t)$ can be introduced.

Definition 3.4.8. The dynamic random embedding of fuzzy continual $A(t)$ into itself with target weights $\widetilde{g}(t)$ of the first type is the process of random embedding $A(t)$ into $A(t)$ with target weights $\widetilde{g}(t)$. Denote $FS_1Uf(t)A(t)_{p(t)}\widetilde{g}(t)$.

Definition 3.4.9. The dynamic random containment of fuzzy continual $C(t)$ itself into itself with target weights $\widetilde{g}(t)$ of the second type is the process of random containment of the fuzzy continual elements from which it can be random generated. Let's denote $FS_2Uf(t)C(t)_{p(t)}\widetilde{g}(t)$.

Definition 3.4.10. Partial dynamic random containment of fuzzy continual $B(t)$ itself into itself with target weights $\widetilde{g}(t)$ of the third type is the process of partial random containment of fuzzy continual $B(t)$ into itself or fuzzy continual elements from which it can be random generated partially, or both at the same time. Denote $FS_3Uf(t)B(t)_{p(t)}\widetilde{g}(t)$.

3.5 The usage of FSUp_{rt}-elements for networks

A. Galushkin's comprehensive monograph [20] covers all aspects of networks, but traditional approaches go through classical mathematics, mainly through the usual correspondence operators. Here we consider a different approach - through a new mathematical process with random containment operators, which, although they can be interpreted as the result of some correspondence operators, are not themselves correspondence operators [1]. The random containment operators are

more convenient for networks. Also, the main emphasis was placed on using processors operating using triodes, which are generally not used in FSUprt - networks. FSUprt-networks(FSUMnsprt) are a FSUprt -structure that can be built for the required weights. FSUprt -OS (FSUprtoperating system) uses FSUprt - coding and FSUprt -translation. In the first one, coding is carried out through a 2-dimensional matrix-row (a, b), where the random number b is the code of the action, and the random number a is the code of the object of this action. FSUprt - coding (or rself- (random coding)) is implemented through a random matrix consisting of 2 columns (in the continuous case, two intervals of random numbers). Here, the source encoding is used for all matrix rows simultaneously. FSUprt - translation is carried out by inversion. In this case, rself- (fuzzy coding) and rself- (fuzzy translation) will be more stable. The target weights $q_i(t)$ in

FSUprt(t) $\begin{matrix} \widetilde{x(t)}\widetilde{q(t)} \\ p(t) \\ \widetilde{w(t)} \end{matrix}$ are chosen for necessary tasks. We will not touch on the issues

of applications, or network optimization. They are described in detail by Galushkin [20]. We will touch on the difference of this only for hierarchical complex networks. The same simple executing programs are in the cores of simple artificial neurons of type FSUprt(designation - mnFSUprt) for simple information processing. More complex executing programs are used for mnFSUprt nodes.

Threshold element FSUprt - $\begin{matrix} b \\ p_2 \end{matrix}$ FSUprt(t) $\begin{matrix} \{a\tilde{x}\} \\ p_1 \\ \{qy\} \\ b \end{matrix}$, b- artificial neurons of type FSUprt

(designation - mnFSUprt) , $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|,...,x_n|\mu_{\tilde{x}}(x_n)|)$ is the fuzzy set of values of the initial signals, $a=(a_1,a_2,...,a_n)$ are the weights of Sit-synapses and $\tilde{y}=(y_1|\mu_{\tilde{y}}(y_1), y_2|\mu_{\tilde{y}}(y_2)|,...,y_n|\mu_{\tilde{y}}(y_n)|)$ is the fuzzy set of values of the output signals with weights $q=(q_1,q_2,...,q_n)$.. The first level of mnFSUprt consists of simple mnFSUprt. The second level of mnFSUprt consists of $fSt_D^{\{mnSt\}}$ – Sit-node of mnFSUprt in range D, D- fuzzy capacity for mnFSUprt node. The third level of

mnFSUp_{prt} consists of FSUp_{prt} $\frac{p}{D}$ - FSUp_{prt}²- node of mnFSUp_{prt} in range D, thus D becomes fuzzy capacity of itself in itself as an element for

mnFSUp_{prt}. For our networks, it is sufficient to use FSUp_{prt}²- nodes of mnFSUp_{prt}, but rself-level is higher in living organisms, particularly FSUp_{prt}ⁿ-, $n \geq 3$. The target structure or the corresponding program enters the target unit using alternating current. After that, all networks or parts of them are activated according to the indicative goal. It may appear that we are leaving the network ideology, but these networks are a complex hierarchy of different levels, like living organisms.

Remark 3.5. Traditional scientific approaches through classical mathematics make it possible to describe only at the usual energy level. Here we consider an approach that makes describing processes with finer energies possible. mnFSUp_{prt} contains

$\{freprograms\}_{FSUp_{prt} \frac{p}{mnFSUp_{prt}}}$, *freprogram* –executing program in FSUp_{prt} - OS. FSUp_{prt} -

OS (or Rself-OS) is based on FSUp_{prt} -assembly language (or FSUelf-assembly language), which is based on assembly language through FSUp_{prt} -approach in turn, if the base of elements of FSUp_{prt} -networks is sufficient. The freprograms are in FSUp_{prt} -programming environments (or rself- fuzzy programming environments), but this question and FSUp_{prt} -networks base will be considered in the following monographs. In particular, freprograms may contain FSUp_{prt} - programming operators. In mnFSUp_{prt} cores, the constant memory FSUp_{prt} with correspondent freprograms depending on mnFSUp_{prt}.

The OS (operating system) and the principles and modes of operation of the FSUp_{prt} -networks for this programming are interesting. But this is already the material for the next publications.

Here is developed a helicopter model without a main and tail rotors based on FSUp_{prt}– physics and special neural networks with artificial neurons operating in normal and FSUp_{prt} -modes. Let's denote this model through FSUmnsprt. To do

this, it's proposed to use mnFSUp_{prt} of different levels; for example, for the usual mode, mnFSUp_{prt} serves for the initial processing of signals and the transfer of information to the second level, etc., to the nodal center, then checked. In case of an anomaly - local FSUp_{prt} –mode with the desired "target weight" is realized in this section, etc., to the center. In the case of a monster during the test, FSUmnspr_t is activated with the desired "target weight." Here are realized other tasks also. To

reach the rself-energy level, the mode $\text{FSUp}_{prt} \frac{\text{SUMnspr}_t}{p}$ is used. In normal mode, SUMnspr_t

it's planned to carry out the movement of FSUmnspr_t on jet propulsion by converting the energy of the emitted gases into a vortex to obtain additional thrust upwards. For this purpose, a spiral-shaped chute (with "pockets") is arranged at the bottom of the FSUmnspr_t for the gases emitted by the jet engine, which first exit through a straight chute connected to the spiral one. There is drainage of exhaust gases outside the FSUmnspr_t. FSUmnspr_t is represented by a neural network that extends from the center of one of the main clusters of FSUp_{prt}- artificial neurons to the shell, turning into the body itself. Above the operator's cabin is the central core of the neural network and the target block, responsible for performing the "target weights" and auxiliary blocks, the functions and roles of which we will discuss further. Next is the space for the movement of the local vortex. The unit responsible for FSUmnspr_t 's actions is below the operator's cab. In FSUp_{prt}–mode, the entire network or its sections are FSUp_{prt} – activated to perform specific tasks, in particular, with "target weights." In the target, block used FSUp_{prt} -coding, FSUp_{prt} -translation for activation of all networks to "target weights" simultaneously, then –the reset of this Sit-coding after activation. Unfortunately, triodes are not suitable for Sit -neural networks. In the most primitive case, usual separators with corresponding resistances and cores for freprograms may be used instead triodes since there is no necessity to unbend the alternating current to direct. The FSUp_{prt}-operative memory belt is disposed around a central core of FSUmnspr_t. There are FSUp_{prt} -coding, FSUp_{prt} -translation, and FSUp_{prt}-realize of feprograms and the programs from the archives without extraction, FSUp_{prt}-coding

and FSUprt-translation may be used in high-intensity, ultra-short optical pulses laser of Nobel laureates 2018-year Gerard Mourou, Donna, Strickland. FSUprt-structure or an freprogram if one is present of needed «target weight» are taken in target block at FSUprt- activation of the networks. $\text{FSUprt} \xrightarrow[\text{activation}]{\text{SUMnsprt}, g, \mu}$ derives SUMnsprt to the rself-level boundary with target weight g.

It's used an alternating current of above high frequency and ultra-violet light, which can work with FSUprt- structures in FSUprt -modes by its nature to activate the networks or some of its parts in FSUprt -modes and locally using FSUprt -mode. Above high frequently alternating current go through mercury bearers. That's why overheating does not occur. The power of the alternating current above high frequently increases considerably for the target block. The activation of all networks is realized to indicate "target weights."

Appendix

We consider FSUprt-logic [1]: consider the functional $g(Q)$, which gives a random numerical value for the truth of the random statement Q from the interval $[0,1]$, where 0 corresponds to "no," and one corresponds to the logical value "yes." Then for joint random statements A, B : $g(A+B)=g(A)+g(B)-g(A*B)+gS(D)$, D - rself- (random statement) from $A*B$, $gS(x)$ - the value of rself-truth for rself- (random statement) x ; for dependent random statements:

$g(A*B)=g(A)*g(B/A)=g(B)*g(A/B)$, where $g(B/A)$ - conditional truth of the random statement B at random statement A , $g(A/B)$ - dependent truth of random statement A at the random statement B . Adding the truth values of inconsistent random propositions: $g(A+B)=g(A)+g(B)$. The formula of complete truth: $g(A)=\sum_{k=1}^n g(B_k) * g(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of hypotheses- (random statements): $\sum_{k=1}^n f(B_k)=1$ ("yes"). Remark. A random statement can be interpreted as an random event, and its truth value as a probability.

FSUp_{prt}- statement for fuzzy set of statements $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$:

$$\text{FSUp}_{prt} \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))}{p \atop w}, \text{FSUp}_{prt} \frac{\{g(x_1), g(x_2), \dots, g(x_n)\}}{p \atop w} - \text{FSUp}_{prt}$$

truth for these statements. It is possible to consider the rself-statement $\text{FS}_3 \text{Ufp} \tilde{x}$ with m statements from $\tilde{x}$, at $m < n$, which is formed by the form (2.1), that is, only

m statements from $\tilde{x}$ are located in the structure $\text{FSUp}_{prt} \tilde{x}$. The same for rself-

truth $\text{FS}_3 \text{Ufp} \{g(x_1), g(x_2), \dots, g(x_n)\}$.

One can introduce the concepts of FSUp_{prt} -group: $\text{FSUrt} \tilde{x}$, $\tilde{x}$ is usual random

group, $\text{FSUrt} \tilde{x}$, where $\tilde{x}$, B- usual random groups, rself-groups: $\text{FS}_i \text{Ufp}$, $i=1,2,3$

[2].

Definition 3.5. A structure with a second degree of freedom will be called complete, i.e., "capable" of reversing itself concerning any of its elements clearly, but not necessarily in known operators; it can form (create) new

special operators (in particular, special functions). In particular, $\text{FCUrt} \tilde{x}$ is such structure. Similarly, for working with models, each is structured by its

structure; for example, use FSUp_{prt} -groups, FSUp_{prt} -rings, FSUp_{prt} -fields, FSUp_{prt} -spaces, rself-(fuzzy groups), rself- (fuzzy rings), rself- (fuzzy fields), and rself- (random spaces). Like any task, this is also a structure of the appropriate random capacity. Since the degree of freedom is double, it is clear that the form of the rself-equation random contains a solution or structures the inversion of the rself- (fuzzy equation) concerning unknowns, i.e., the structure of the rself-equation is complete.

3.6 Variable random hierarchical dynamic fuzzy structures (models, operators) for dynamic, singular, hierarchical fuzzy sets

In contrast to the classical one-attribute fuzzy set theory [2], [3], where only its contents are taken as a set, we consider a two-attribute fuzzy set theory with a fuzzy set as a random capacity and separately with its contents. We simply use a convenient form to represent the singularity of a fuzzy set. Articles [4] - [16] use the following methodology for permanent structures:

1. Cancellation of the axiom of regularity.
2. 2 attributes for the fuzzy set: fuzzy capacity and its content.
3. Fuzzy compression of a fuzzy set, for example, to a point.
4. "turning out" from one another, particularly from a random capacity, we pull out another random capacity, for example, itself, as its element.
5. The simultaneity of one (random compression) and the other ("eversion").
6. Own random capacities.
7. Qualitatively new fuzzy programming and fuzzy Networks.

Here we will consider variable random structures (models) [1], both discrete and continuous: a) with variable connections, b) with the variable backbone for links, c) generalized version; in particular, in variable random structures (models), for example,

$$\begin{matrix} C & & A \\ p_{14}FSUp_{rt}(t)p_{13} & & \\ D & & B \end{matrix} = \left\{ \begin{array}{l} \begin{matrix} C \\ (p_6FSUp_{rt}, q_2 \geq t \geq q_1)|p_1 \\ D \end{matrix} \\ \begin{matrix} B & A \\ (p_8ffS^1p_{rt}p_7, q_3 \geq t > q_2)|p_2 \\ D & B \end{matrix} \\ \begin{matrix} C & A \\ (p_{10}FSUp_{rt}p_9, q_4 \geq t > q_3)|p_3 & (*_{3.1}), \\ D & B \end{matrix} \\ \begin{matrix} A \\ (FSUp_{rt}p_{11}, q_5 \geq t > q_4)|p_4 \\ B \end{matrix} \\ \begin{matrix} \{\} \\ (p_{12}FSUp_{rt}, t > q_5)|p_5 \\ D \end{matrix} \\ \dots \end{array} \right.$$

p_i - probabilities, $i = 1, \dots, 14$. In particular, $\begin{matrix} B & A \\ p_{10}^{FSUpr} p_9 & \\ D & B \end{matrix}$ can be interpreted as a

random game: player 1 random with probabilities p_9 fits fuzzy A into fuzzy B, and the other player with probabilities p_{10} pushes fuzzy D out of fuzzy B at the same time.

In what follows, we will denote variable random structure (model) through $rFVS(t)$, self-variable random structures (models) through $SrFVS(t)$, and oself-variable random structures (models) through $OSrFVS(t)$. Singular fuzzy structures (models) are not confused with random structures (models) with singularities.

$\begin{matrix} B & A \\ p_{10}^{FSUpr} p_9 & \\ D & B \end{matrix}$ -2-hierarchical random structure: 1-level - elements A, B, C, D; level

2 - connections between them. 2-

Examples: a) discrete variable random structure with p_i - probabilities, $i = 1, \dots, 8$.

$a|p_1 \quad b|p_8 \quad g|p_7$
 $c|p_2 \quad rFVS(t) \quad w|p_6$
 $d|p_3 \quad q|p_4 \quad r|p_5$

Fig.II.2

c) continuous variable random structure



Fig.II.3

Where a continuous random set represents the rim of the Fig.II.3.

We introduce the notation m_{rFVS_N} - the number of elements, N - the number of connections between them in the discrete variable 2-hierarchical random structure $rFVS(t)$. We introduce the notation q_{rFVS_R} - any, R - connections in q_{rFVS_R} in the variable 2-hierarchical random structure $rFVS(t)$, in particular, q_{rFVS_R} , R can be fuzzy sets both discrete and continuous and discrete-continuous. We consider the functional $c(Q)$, which gives a numerical value for the random structurability of Q from the interval $[0,1]$, where 0 corresponds to "no random structure", and 1 corresponds to the value " random structure". Then for joint A, B:

$c(A+B)=c(A)+c(B)-c(A*B)+cS(D)$, D- self-(random structure) from $A*B$, $cS(x)$ - the value of self-(random structure) for self-(random structure) x ; for dependent random structures: $c(A*B)=c(A)*c(B/A)=c(B)*c(A/B)$, where $c(B/A)$ - conditional random structurability of the random structure B at the random structure A, $c(A/B)$ - conditional random structure of the random structure A at the random structure B. Adding inconsistent random structures: $c(A+B) = c(A) + c(B)$. The formula of complete random structure: $c(A)=\sum_{k=1}^n c(B_k) * c(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of random hypotheses- containments: $\sum_{k=1}^n c(B_k)=1$ ("random structure"). Random Sprrt- structure for fuzzy set of random structures $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1),$

$$x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)): \text{FSUprrt} \quad \begin{matrix} (x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)) \\ p \\ w \end{matrix}.$$

$$\text{FSUprrt} \quad \begin{matrix} \{c(x_1)|\mu_{c(\tilde{x})}c(x_1)|\mu_{c(\tilde{x})}c(x_2), \dots, c(x_n)|\mu_{c(\tilde{x})}c(x_n)\} \\ p \\ w \end{matrix} \quad \text{- random FSUprrt-}$$

structurability for these random structures. It is possible to consider the self-(random structure) $FS_3Ufp\tilde{x}$ with m structures and from $\tilde{x}$, at $m < n$, which is formed by the form (2.1), that is, only m statements from $\tilde{x}$ are located in the

$$\text{structure FSUprrt} \quad \begin{matrix} (x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)) \\ p \\ w \end{matrix} \quad \text{or for more complex operators}$$

in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

The same for self-(random structurability)

$$FS_3U\{c(x_1)|\mu_{c(\tilde{x})}c(x_1), c(x_2)|\mu_{c(\tilde{x})}c(x_2), \dots, c(x_n)|\mu_{c(\tilde{x})}c(x_n)\}.$$

Can be considered N-hierarchical random structure: 1-level - elements; level 2 - connections between them, level 3 - relationships between elements of level 2, etc. up to level N+1. N-hierarchical random structure: 1-level - A; 2-level -B, 3-level - C, etc. up to (N+1)- level, where A, B, C, ... can be any in particular, by random actions, fuzzy sets, and others.

$$\begin{matrix} C \\ p_{14} \text{FSUprrt}(t) p_{13} \\ D \end{matrix} \begin{matrix} A \\ B \end{matrix} : \left\langle \begin{matrix} A \rightarrow B \\ A, B \end{matrix} \middle| \begin{matrix} D \leftarrow C \\ C, D \end{matrix} \right\rangle \rightarrow \left(\begin{matrix} fself(A \rightarrow B) p_{13} \\ A, B \end{matrix} \right)$$

$$p_{14}^{C, D} \text{FSUp}^{A, B} \text{prt}(t) p_{13} : \left(A \rightarrow B \mid D \leftarrow C \right) \rightarrow \left(\begin{matrix} f o s e l f (D \leftarrow C) p_{14} \\ C, D \end{matrix} \right)$$

Can be considered discrete random hierarchical random structure, continuous random hierarchical fuzzy structure, and discrete-continuous hierarchical random structure, FSUp^{N – hierarchical random structure} $\begin{matrix} p \\ x \end{matrix}$.

The example

$$rFQHS = rFHS_{prt} \left[\begin{array}{c} \text{N – level of hierarchical random structure} \\ \text{(FSUp}^{p, x} \text{prt} \text{)} p_N \\ \dots \\ \text{i – level of hierarchical random structure} \\ \text{(FSUp}^{p, x} \text{prt} \text{)} p_i \\ \dots \\ \text{1 – level of hierarchical random structure} \\ \text{(FSUp}^{p, x} \text{prt} \text{)} p_1 \end{array} \right] - \text{random}$$

N-hierarchical random structure compression into point x, p_i - probabilities, $i = 1, \dots, N$.

$$\text{Let } rg(N, rFQHS) = rFQHS \left. \begin{matrix} rFQHS rFQHS \dots rFQHS \\ \end{matrix} \right\} \text{-N levels}$$

It can be considered self- rFQHS, $rg(y, rFQHS)$ for any y, $rg(rFQHS, rFQHS)$.

Compression random Hierarchy Example:

$$\begin{pmatrix} \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \end{pmatrix} = \begin{pmatrix} \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \\ \text{FSUp}^{p, x} \text{prt} \end{pmatrix} + B$$

Let's consider two versions: 1) random containment is interpreted through the concept of random containment, and 2) random capacity is interpreted through the concept of random containment as a rest point of random containment. Self- (random containment) is interpreted as a rest point of self-(random containment).

Let A self-(random compress) into B, D self-(random displace) from C in

$$\begin{array}{cc} C & A \\ p_2 r F V S_1 p r t p_1. & \\ D & B \end{array}$$

We consider the functional $ca(Q)$ [1], which gives a numerical value for the accommodation of random Q from the interval $[0,1]$, where 0 corresponds to " random containment" and one corresponds to the value " random capacity". Then for joint random A, B : $ca(A+B)=ca(A)+ca(B)-ca(A*B)+caS(D)$, D - self-(random containment) for $A*B$, $caS(x)$ - the value of self-(random capacity) for self-(random containment) of x ; for dependent random containments:

$ca(A*B)=ca(A)*ca(B/A)=ca(B)*ca(A/B)$, where $ca(B/A)$ - conditional accommodation of the random containment B at the random containment A , $ca(A/B)$ - conditional random capacity of the random containment A at the random containment B . Adding the random capacity values of inconsistent random containments: $ca(A+B)=ca(A)+ca(B)$. The formula of complete random capacity: $ca(A)=\sum_{k=1}^n ca(B_k) * ca(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of random hypotheses- containments: $\sum_{k=1}^n ca(B_k)=1$ ("random capacity"). $FSUp_{rt}$ -(random containment) for

$$\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)): FSUp_{rt} \begin{array}{c} (x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)) \\ p \\ w \end{array},$$

$\tilde{x}$ - fuzzy set of random containments. $FSUp_{rt}$

$$\{ ca(x_1)|\mu_{ca(\tilde{x})} ca(x_1)|\mu_{ca(\tilde{x})} ca(x_2), \dots, ca(x_n)|\mu_{ca(\tilde{x})} ca(x_n) \} \begin{array}{c} p \\ w \end{array} - FSUp_{rt} \text{- accommodation}$$

for these random containments $x_i, i = 1, \dots, n$. It is possible to consider the self-(random containment) $FS_3 Uf p \tilde{x}$ with m random containments from $\tilde{x}$, at $m < n$, which is formed by the form (1), that is, only m random containments from $\tilde{x}$ are

$$\text{located in the random containment } FSUp_{rt} \begin{array}{c} (x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)) \\ p \\ w \end{array}. \text{ The}$$

same for self-(random accommodation)

$$FS_3 Uf \{ ca(x_1)|\mu_{ca(\tilde{x})} ca(x_1), ca(x_2)|\mu_{ca(\tilde{x})} ca(x_2), \dots, ca(x_n)|\mu_{ca(\tilde{x})} ca(x_n) \}.$$

Consider a variable random hierarchy (we will denote it by rFVH) [1].

The example of variable random hierarchy

$$C_D FSt(t)_B^A = \left\{ \begin{array}{l} \left(\left\{ Q +_{D-D \cap C} \{ \} fSt \right\}, q_2 \geq t \geq q_1 \right) | p_1 \\ fS_{01}^{1^e} fB * \\ \left(\left(\begin{array}{c} B \\ Q-B \end{array} fS_1 t_B^{A-B} \right), q_3 \geq t > q_2 \right) | p_2 \\ fS_{01}^{et} fB \\ \left(\left(\begin{array}{c} C-B \\ C-B \end{array} fS_1 t_B^{A-B} \right), q_4 \geq t > q_3 \right) | p_3 \\ \begin{array}{c} C-B \\ D-C-B \end{array} fS_1 t_B^{A-B} \\ \left(\left(\begin{array}{c} R \\ A \cup B - A \cap B \end{array} \right), q_5 \geq t > q_4 \right) | p_4 \\ \left(\begin{array}{c} \{ \} \\ D \end{array} fSt, t > q_5 \right) | p_5 \\ \dots \end{array} \right. \quad (*_{D.2}),$$

where Q is osel-(random set) for random $(D \cap C)$ [10], [15], R is self-(random set) for random $A \cap B$ [10] - [16], $fS_{01}^{et} fB$, $\begin{array}{c} C-B \\ C-B \end{array} fS_1 t_B^{A-B}$, $\begin{array}{c} C-B \\ D-C-B \end{array} fS_1 t_B^{A-B}$ are considered in [6], [11], p_i - probabilities, $i = 1, \dots, 5$. Variable compression (designation rFVS) of random $\tilde{A}$ into $\tilde{x}(t)$: $FSt_{\tilde{x}(t)}^{\tilde{A}}$, where $\tilde{x}(t)$ - any dynamical random object at time t .

We consider the functional $h(Q)$, which gives a numerical value for the hierarchization of random Q from the interval $[0,1]$, where 0 corresponds to "no random hierarchy," and 1 corresponds to the value "random hierarchy." Then for joint random hierarchies A, B : $h(A+B)=h(A)+h(B)-h(A*B)+hS(D)$, D - self-(random hierarchy) from $A*B$, $hS(x)$ - the value of self-(random hierarchy) for self-(random hierarchy) x ; for dependent random hierarchies:

$h(A*B)=h(A)*h(B/A)=h(B)*h(A/B)$, where $h(B/A)$ - conditional hierarchization of the random hierarchy B at the random hierarchy A , $h(A/B)$ - conditional random hierarchy of the random hierarchy A at the random hierarchy B . Adding the random hierarchy values of inconsistent random hierarchies: $h(A+B)=h(A)+h(B)$. The formula of complete random hierarchy: $h(A)=\sum_{k=1}^n h(B_k) * h(A/B_k)$, $B_1,$

$B_2, \dots, B_n$ -full group of random hypotheses- hierarchies: $\sum_{k=1}^n h(B_k)=1$ (“random hierarchy”).

FSUp_{rt}- structure for random set of hierarchies $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|$

$$\mu_{\tilde{x}}(x_n)): \text{FSUp}_{rt} \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))}{p \quad B} .$$

$$\text{FSUp}_{rt} \frac{\{h(x_1)|\mu_{h(\tilde{x})}h(x_1)|\mu_{h(\tilde{x})}h(x_2), \dots, h(x_n)|\mu_{h(\tilde{x})}h(x_n)\}}{p \quad B} - \text{FSUp}_{rt}-$$

hierarchization for these random hierarchies. It is possible to consider the self- (random hierarchy) FS_3UA with m random hierarchies from A , at $m < n$, which is formed by the form (1), that is, only m random hierarchies from A are located in the

$$\text{random hierarchy } \text{FSUp}_{rt} \frac{A}{p \quad B} . \text{ The same for self- hierarchization}$$

$FS_3U\{h(x_1)|\mu_{h(\tilde{x})}h(x_1), h(x_2)|\mu_{h(\tilde{x})}h(x_2), \dots, h(x_n)|\mu_{h(\tilde{x})}h(x_n)\}$. Can be considered

$$\text{FSUp}_{rt} \frac{\{ca(x), c(x), h(x)\}}{p \quad B} . \text{ Very interesting next random hierarchy type:}$$

$$\text{random hierarchy } A \quad \text{random hierarchy } A \\ p \quad \text{FSUp}_{rt} \quad p \\ \text{random hierarchy } A \quad \text{random hierarchy } A$$

operator FCUp_{rt} to work with random structures:

$$\begin{matrix} A & Q \\ p_2 \text{FCUp}_{rt} & p_1 \end{matrix} \text{ random structures } R \text{ with the random structure from } Q \text{ with}$$

$$\begin{matrix} D & R \end{matrix}$$

probabilities p_1 and unstructures random A by the random structure D with probabilities p_2 simultaneously.

Very interesting next random structure type:

$$\begin{matrix} A & A \\ p_2 \text{FCUp}_{rt} & p_1 \end{matrix} ,$$

$$\begin{matrix} A & A \end{matrix}$$

You can enter special operator FHUp_{rt} to work with random hierarchies:

A Q
 p_2 ffCSprt p_1 random hierarchizes R with the random hierarchy from Q with
D R
probabilities p_1 and unhierarchizes random A by the random hierarchy D with
probabilities p_2 simultaneously.

3.7 RANDOM PROGRAM OPERATORS FSUp_rt, fftprS, FSU¹epr, FSUepr₁

Here it is supposed to use a symbiosis of parallel actions and conventional calculations through sequential actions [1]. This must be done through FSUp_rt-Networks - random analogue of Sit-Networks [15] in one of the central departments of which a conventional computer system is located. The parallel processor is itself rfeprogram - random analogue of eprogram [15] with direct parallel computing not through serial computing.

Using conventional coding by a computer system, through a Target-block with a FSUp_rt -program operator - FSUp_rt $\frac{Ag}{p}$ with probabilities p, it will be possible
activation

to obtain the random execution with probabilities p of a parallel random action A with the desired target weight g or the execution of a parallel action A with the desired random target weight g or both. Each code for a neural network from a conventional computer we "bind" (match) to the corresponding value of current (or voltage). For FSUp_rt-coding and FSUp_rt-translation may be use alternating current of ultrahigh frequency or high-intensity ultra-short optical pulses laser of Nobel laureates 2018 year Gerard Mourou, Donna Strickland, or a combination of them. For the desired action, for example, using the direct parallel rfprogram of operator

$\{UHF AC := Q\}$
FSUp_rt p with probabilities p, we simultaneously enter the desired
activation

set of codes Q using a microwave current or high-intensity ultra-short optical pulses laser in Target-block.

In a conventional computer, the process of sequential calculation takes a certain time interval, in a directly parallel calculation by a neural network, the calculation is instantaneous, but it occupies a certain region of the space of calculation objects. Consider the types of direct parallel random fprogram operators:

- 1) random fSprt-program operators (designation FSUpert-program operators)
- 2) random ftprS-program operators (designation FtprS-program operators)
- 3) random fS¹epr - program operators (designation FSU¹epr -program operators)
- 4) random Sepert₁- program operators (designation FSUeprt₁-program operators)

One example is pattern recognition: FSUpert

if FSUpert $\frac{\text{image archive}}{p}$ $\frac{q}{B}$ $\ni$ FSUpert $\frac{p}{B}$ then Name of q .

The example of FSUpert-program is FSUpert

{ FSUpert $\frac{\{r\} := \{a(x)\}}{p}$, FSUpert $\frac{IF \{\{B\}\{f\}\} \text{ then } Q}{p}$, FSUpert $\frac{Q}{Q}$ } .

Consider a third type of random capacity in itself - random analogue of capacity in

itself. For example, based on FSUpert $\frac{\tilde{x}}{q}$, where $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$,

i.e. n - elements at one point, we can consider the capacity FS₃Uf $\tilde{x}$ p (in itself with m elements from $\tilde{x}$, m<n, which is formed according to the form (2.1),

that is, the structure FSUpert $\frac{\tilde{x}}{q}$ contains only m elements or for more complex

operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*)..

Here are some of the random fSprt-program operators.

1. Simultaneous random assignment with fuzziness m of the expressions $\tilde{r}=(r_1 | \mu_{\tilde{r}}(r_1), r_2 | \mu_{\tilde{r}}(r_2), \dots, r_n | \mu_{\tilde{r}}(r_n))$ to the variables $\tilde{x}=(x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$. This is implemented via FSUpert $\frac{\{\{\tilde{x}\} := \{r\}\}}{p}$.

2. Simultaneous random checking with probabilities p by the fuzzy set of conditions $\tilde{g}=(g_1|\mu_{\tilde{g}}(g_1), g_2|\mu_{\tilde{g}}(g_2), \dots, g_n|\mu_{\tilde{g}}(g_n))$ for the fuzzy set of expressions $\tilde{B}=(B_1|\mu_{\tilde{B}}(B_1), B_2|\mu_{\tilde{B}}(B_2), \dots, B_n|\mu_{\tilde{B}}(B_n))$ Implemented via $FSUp_{prt}$ $IF \left\{ \left\{ \tilde{B} \right\} \left\{ \tilde{g} \right\} \right\} \underset{p}{then} \underset{w}{\tilde{Q}}$ where $\tilde{Q}$ can be anything.

3. Similarly for random loop operators and others.

FS_3Uf – random software operators will differ only just because aggregates $\tilde{x}, \tilde{r}, \tilde{B}, \tilde{g}$ will be formed from corresponding FSUp_{prt}-program operators in form (2.1), for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

For example, $FSUp_{prt} \underset{p}{\{R\}}$ is the random capacity with probabilities p in itself of the $\underset{g}{\{R\}}$ second type if $\underset{g}{\{R\}}$ is a rfprogram capable of random generating $\{R\}$ with probabilities p .

The example of self-rfprogram of the first type is

$$FSUp_{prt} \left\{ FSUp_{prt} \underset{p}{\{r\} := \underset{w}{\{a(x)\}}} , FSUp_{prt} \underset{p}{IF \left\{ \left\{ B \right\} \left\{ f \right\} \right\} \underset{w}{then} Q} , FSUp_{prt} \underset{p}{\frac{Q}{Q}} \right\}.$$

The example of FSUp_{prt}-program for FSUmnsprt:

$FSUp_{prt} \underset{p}{q := \underset{B}{}}$ - random assigning random q to fuzzy B with probabilities p .

$FSUp_{prt} \underset{p}{tw := \underset{g}{}}$ - random assigning target weight tw to fuzzy g with probabilities p .

$FSUp_{prt} \underset{p}{\{q\}w}$ - FSUmnsprt random *activation* for fuzzy $\{q\}w$ with probabilities p .
 $ffSmnsprt$ *activation*

FSUp_{prt}-coding.

FSUp_{prt}-coding with probabilities p: 1) fuzzy set A to fuzzy set B, 2) fuzzy set A to a point q, where the elements of the fuzzy sets A, B can be continuous. For

example, $\text{FSUp}_{prt} \begin{matrix} A \\ p \\ B \end{matrix}$.

There are FSUp_{prt}-coding, FSUp_{prt}-translation, FSUp_{prt}-realize of rfep_{rograms} and of the rf_{programs} from the archives without extraction theirs

FSUelf-coding.

FSUelf-coding with probabilities p: 1) fuzzy set A to set fuzzy A, i.e. fuzzy A on itself 2) fuzzy set A to a point q in form (2.1), where the elements of the fuzzy sets

A, B can be continuous. For example, $\text{FSUp}_{prt} \begin{matrix} A \\ p \\ A \end{matrix}$.

One of the central departments of the control system should be a computer system of the usual type of the desired level. In symbiosis with FSUp_{prt}-Networks, it will provide a holistic operation of the control system in three modes: conventional serial through a conventional type computer system, direct parallel through FSUp_{prt}-Networks and series-parallel. Codes from a conventional type computer system will be used via FSUp_{prt} -connectors in FSUp_{prt} - coding, for example: $\text{FSUp}_{prt} \{ \text{UHF AC} := Q \}$. UHF AC field activation is used.
activation

Dynamic FSUp_{prt} and FS₃Uf(t) programming [1].

The ideology of dynamic FSUp_{prt} and FS₃Uf(t) can be used for programming:

4. Simultaneous random assignment of the expressions $\tilde{r}(t) = (r_1(t) | \mu_{\tilde{r}(t)}(r_1(t)), r_2(t) | \mu_{\tilde{r}(t)}(r_2(t)), \dots, r_n(t) | \mu_{\tilde{r}(t)}(r_n(t)))$ to the variables $\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$. This is

implemented via $\text{FSUp}_{prt}(t) \begin{matrix} \{ \tilde{x}(t) \} := \{ r(t) \} \\ p(t) \\ w(t) \end{matrix}$.

5. Simultaneous random checking the fuzzy set of conditions $\tilde{g}(t)=(g_1(t)|\mu_{\tilde{g}(t)}(g_1(t)), g_2(t)|\mu_{\tilde{g}(t)}(g_2(t)), ..., g_n(t)|\mu_{\tilde{g}(t)}(g_n(t)))$ for the fuzzy set of expressions $\tilde{B}(t)=(B_1(t)|\mu_{\tilde{B}(t)}(B_1(t)), B_2(t)|\mu_{\tilde{B}(t)}(B_2(t)), ..., B_n(t)|\mu_{\tilde{B}(t)}(B_n(t)))$. Implemented via FSUp_{prt}
- $$\underset{(t)}{IF} \left\{ \underset{p}{\left\{ \tilde{B}(t) \right\}} \underset{w(t)}{\left\{ \tilde{g}(t) \right\}} \right\} \text{ then } \underset{Q(t)}{\tilde{Q}(t)} \quad \text{where } \tilde{Q}(t) \text{ can be anything.}$$

6. Similarly for random loop operators and others.

FS₃Uf(t)– random software operators will differ only just because aggregates $\tilde{x}(t), \tilde{r}(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding FSUp_{prt}-program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

FtprS-program operators.

The ideology of FtprSU and Ft_{S₄}Uf - random analogues of tS and t_{S₄}f from [10] can be used for programming. Here are some of the FtprSU -program operators.

1. Simultaneous expelling assignment of the expressions $\tilde{r}=(r_1|\mu_{\tilde{r}}(r_1), r_2|\mu_{\tilde{r}}(r_2), ..., r_n|\mu_{\tilde{r}}(r_n))$ from the variables $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), ..., x_n|\mu_{\tilde{x}}(x_n))$.

This is implemented via $\underset{p}{\tilde{x}}$ FSUp_{prt}.
= : $\tilde{r}$

2. Simultaneous expelling check the fuzzy set of conditions $\tilde{g}=(g_1|\mu_{\tilde{g}}(g_1), g_2|\mu_{\tilde{g}}(g_2), ..., g_n|\mu_{\tilde{g}}(g_n))$ for the fuzzy set of expressions $\tilde{B}=(B_1|\mu_{\tilde{B}}(B_1), B_2|\mu_{\tilde{B}}(B_2), ..., B_n|\mu_{\tilde{B}}(B_n))$. It's implemented through

$\underset{w}{IF} \left\{ \underset{p}{\left\{ \tilde{B} \right\}} \left\{ \tilde{g} \right\} \right\} \text{ then } \underset{Q}{\tilde{Q}}^{\text{FSUp}_{\text{prt}}}$

where Q can be any.

3. Similarly for loop operators and others.

Ft_{S₄}Uf – random software operators will differ only just because aggregates

$\tilde{x}, \tilde{r}, \tilde{B}, \tilde{g}$ will be formed from corresponding FtprSU program operators in form

(2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*). Consider hierarchical FtprSU -program operator

$$\begin{matrix} B \\ p \text{ FSUpert} \\ A \end{matrix} = \left\{ \begin{matrix} D + \begin{matrix} \{\} \\ p \\ A - A \cap B \\ (B - A \cap B) \end{matrix} \text{ FSUpert} \end{matrix} \right\}, \text{ where } D \text{ is oself-(fuzzy set) for fuzzy } (A \cap B).$$

Dynamic FtprSU and Ft_{S_4Uf} programming at time q.

The ideology of FtprSU and Ft_{S_4Uf} can be used for dynamic programming. Here are some of the FtprSU(t)- dynamic programming operators.

1. The process of simultaneous random expelling assignment of the expressions

$\tilde{r}(t) = (r_1(t) | \mu_{\tilde{r}(t)}(r_1(t)), r_2(t) | \mu_{\tilde{r}(t)}(r_2(t)), \dots, r_n(t) | \mu_{\tilde{r}(t)}(r_n(t)))$ from the variables
 $\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$. is implemented through

$$\begin{matrix} \tilde{x}(t) \\ p(t) \text{ FSUpert}(t). \\ = : \tilde{r}(t) \end{matrix}$$

2. The process of simultaneous random expelling check the fuzzy set of conditions

$\tilde{g}(t) = (g_1(t) | \mu_{\tilde{g}(t)}(g_1(t)), g_2(t) | \mu_{\tilde{g}(t)}(g_2(t)), \dots, g_n(t) | \mu_{\tilde{g}(t)}(g_n(t)))$ for the fuzzy set of

expressions $\tilde{B}(t) = (B_1(t) | \mu_{\tilde{B}(t)}(B_1(t)), B_2(t) | \mu_{\tilde{B}(t)}(B_2(t)), \dots, B_n(t) | \mu_{\tilde{B}(t)}(B_n(t)))$ is

implemented through
$$\begin{matrix} w(t) \\ p(t) \text{ FSUpert}(t), \text{ where } Q(t) \text{ can be any.} \\ IF \{ \{ \tilde{B}(t) \} \{ \tilde{g}(t) \} \} \text{ then } \tilde{Q}(t) \end{matrix}$$

3. Similarly for random loop operators and others.

Dynamic Ft_{S_4Uf} – random software operators will differ only just because

aggregates $\tilde{x}(t), \tilde{r}(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding processes $\text{fftprS}(t)$ for above mentioned programming operators through form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*). Consider hierarchical dynamic FtprSU(t)-program operator:

FSU¹epr -program operators (form $p_2^{B \text{FSU}^1 \text{pr} t p_1^A$ - random analogue of ${}_D^B S^1 t_B^A$ [6]))

Consider hierarchical dynamic FSU¹ep^r-program operator: (form

FSUeprt₁- program operators (form $\begin{smallmatrix} C & A \\ p_2FSU_1prtp_1 \\ D & B \end{smallmatrix}$ - random analogue of $\begin{smallmatrix} C \\ D \end{smallmatrix}S_1t_B^A$
[11])).

example, where the assemblage point d_r is the cursor, it is quite complex self—
rfprogram.

rfprogram operator.

$\begin{smallmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{smallmatrix}$ can be interpreted as a $\begin{pmatrix} s_1 \text{elf} \\ os_1 \text{elf} \end{pmatrix}$ -rprogram operator. $\begin{smallmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{smallmatrix}$ --
sample $\begin{pmatrix} s_1 \text{elf} \\ os_1 \text{elf} \end{pmatrix}$ -rprogram structure example.

Appendix

Remark. Energy of a living organism:

$$\text{rfg}(r, a(E_q)) = \text{FSUpert} \left\{ \begin{matrix} q \begin{pmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{pmatrix} \\ W_q \end{matrix} f \text{Sprt}_{q \begin{pmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{pmatrix}}^{E_q}, f \text{Sprt}_{d_r(E_{in} l^{d_r})}^{\{E_{ex} l^{d_r}\}} \right\} \begin{matrix} p \\ t_0 \end{matrix} (**_{3.7}).$$

$\begin{smallmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{smallmatrix}$ -internal energy of a living organism, q- a gap in the energy cocoon of a living organism, r-the position of the assemblage point d_r on the energy cocoon of a living organism, W_q - energy prominences from the gap in the cocoon of a living organism, E_q -external energy entering the gap in the cocoon of a living organism, $E_{ex} l^{d_r}$ - a bundle of fibers of external energy self-capacities from outside the cocoon, collected at the point of assembly of the cocoon of a living organism at time t_0 , $E_{in} l^{d_r}$ - a bundle of fibers of external energy self-capacities from inside the cocoon, collected at the point of assembly of the cocoon of a living organism in the same position r of the assemblage point d_r . d_r is the subject of identifying the energy fibers of the subtle energy of the Universe in position r both outside and inside the cocoon.

Energy with probabilities p_1 , p of a living organism of a person:

$$\text{rfpg}(r, a(E_q)) = \text{FSUpert} \left\{ \begin{matrix} q \begin{pmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{pmatrix} \\ W_q \end{matrix} f \text{Sprt}_{q \begin{pmatrix} a & a \\ p_1 \text{SU}_1 \text{rt} p_1 \\ a & a \end{pmatrix}}^{E_q}, f \text{Sprt}_{d_r(\text{self}(E_{in} l^{d_r}))}^{\{E_{ex} l^{d_r}\}} \right\} \begin{matrix} p \\ t_0 \end{matrix} (***_3.7).$$

(**_{3.7}), (***__{3.7}) can be interpreted as FSUpert - program operators.

Entire neural network as instantaneous simultaneous rFRAM in FSUpert-elements

and rself- elements. $r \text{self} f^{r \text{self}} \dots^{r \text{self}}$, $\text{rf1} \downarrow \text{I} \uparrow_{-1}^1 r f_2 \text{rf1} \downarrow \text{I} \uparrow_{-1}^1 r f_2 \dots^{r f_2} \text{rf1} \downarrow \text{I} \uparrow_{-1}^1 r f_2$,

$Fsin\infty^{Fsin\infty\dots Fsin\infty}$, $Fsin\infty$ is the random $sin\infty$. When activated in a neural network, the entire neural network becomes a working memory. Use of rself-energy as

random activation or from outside. $FQ_0 = FSU_{prt}^{FSU_{mnSprt}^{activation} \mu} \rightarrow \text{self-FrRAM,}$
 $FSU_{prt}^{FSU_{mnSprt}^{activation}}$

$FQ_{00} = FSU_{prt}^{FSU_{mnSprt}^{activation} p} ffQ_{0prt}, FQ_{01} = FSU_{prt}^{FSU_{mnSprt}^{activation} p} FQ_0.FQ_0.FQ_{00}.FQ_{01}-$
 $FSU_{prt}^{FSU_{mnSprt}^{activation}}$

coding, translation, realization in rfeoprograms, use $FQ_0, FQ_{00}, FQ_{01}-$
 $FSU_{mnSprt}, F\text{Assembler}.$

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Part IV. SAprt – elements and their applications

Introduction

Significance of the section: in a new qualitatively different approach to the study of complex processes through new mathematical, hierarchical, dynamic structures with many actions, in particular those processes that are dealt with by Synergetics.

$$\begin{array}{cc} C & A \\ Q_2 \text{SAprt} Q_1 & (*_{4.1}) \\ D & B \end{array}$$

where $A = (a_1, a_2, \dots, a_n)$ appear into B with actions $Q_1 = (Q_{11}, Q_{12}, \dots, Q_{1n})$, including virtual actions, $D = (d_1, d_2, \dots, d_n)$ are forced out of C with actions $Q_2 = (Q_{21}, Q_{22}, \dots, Q_{2n})$, including virtual actions. The result of this process will be described by the expression

$$\begin{array}{cc} C & A \\ Q_2 \text{SArt} Q_1 & (*_{4.2}) \\ D & B \end{array}$$

If A, B, D, C are taken as fuzzy sets, then we will call $(*_{4.1})$ a dynamic fuzzy set. The need $(*_{4.1})$ arose to describe processes in networks. Threshold element **SUprt** -

$\begin{array}{c} b \\ Q_2 \text{SAprt}(t) Q_1 \\ \{qy\} \end{array} \begin{array}{c} \{a\tilde{x}\} \\ b \end{array}$, b - artificial neurons of type **SAprt** (designation - mnSAprt) ,

$\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$ is the fuzzy set of values of the initial signals, $a = (a_1, a_2, \dots, a_n)$ are the weights of Sprrt-synapses and $\tilde{y} = (y_1 | \mu_{\tilde{y}}(y_1), y_2 | \mu_{\tilde{y}}(y_2), \dots, y_n | \mu_{\tilde{y}}(y_n))$ is the fuzzy set of values of the output signals with weights $q = (q_1, q_2, \dots, q_n)$.

It can be considered a simpler version of the dynamic fuzzy set

$$\begin{array}{cc} A \\ \text{SAprt} Q_1 & (**_{4.1}) \\ B \end{array}$$

where fuzzy set A appear into B with actions $Q_1 = (Q_{11}, Q_{12}, \dots, Q_{1n})$, including virtual actions, into fuzzy set B, the result of this process will be described by the expression

$$\begin{matrix} A \\ \text{SArt} Q_1 \\ B \end{matrix} \quad (**_{4.2})$$

or

$$\begin{matrix} C \\ Q_2 \text{SAprt} \\ D \end{matrix} \quad (***_4.1)$$

where fuzzy set D are forced out of C with actions $Q_2 = (Q_{21}, Q_{22}, \dots, Q_{2n})$, including virtual actions, the result of this process will be described by the expression

$$\begin{matrix} C \\ Q_2 \text{SArt} \\ D \end{matrix} \quad (***_4.2)$$

. We consider: the measure:

$$1) \quad m^{**}_{D,b}(\begin{matrix} A \\ Q_2 \text{SAprt} Q_1 \\ D \end{matrix}) = \frac{\mu(A)}{\mu(D)}, \text{ where } m(A), m(D) \text{ --usual measures of fuzzy sets } A, D.$$

$$2) \text{ measure of fuzziness } \begin{matrix} b \\ Q_2 \text{SAprt} Q_1 \\ D \end{matrix} \sim \begin{matrix} A \\ \begin{matrix} b \\ Q_2 \text{SAprt} Q_1 \\ D \end{matrix} \end{matrix} = \frac{\mu_{\tilde{A}}(A)}{\mu_{\tilde{D}}(D)}, \text{ where } \mu_{\tilde{A}}(A), \mu_{\tilde{D}}(D)$$

-measures of fuzziness of fuzzy sets A, D. $\mu_{\tilde{x}}(\tilde{x})$ - measure of fuzziness of $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$ let's define it as $\frac{\mu_{\tilde{x}}(x_1) + \mu_{\tilde{x}}(x_2) + \dots + \mu_{\tilde{x}}(x_n)}{n}$.

Remark. One can consider some generalization for $(*_{4.1}), (*_{4.2})$: $\begin{matrix} q_1(C) \\ Q_2 \text{SAprt} \\ D \end{matrix}$

$\begin{matrix} A \\ Q_1 \\ q(B) \end{matrix}, \begin{matrix} q_1(C) \\ Q_2 \text{SArt} \\ D \end{matrix} \begin{matrix} A \\ Q_1 \\ q(B) \end{matrix}$, where A appear into B through q, D is forced out of

C through q_1 , A, B, D, C are taken as fuzzy sets. Similarly, for $(**_{4.1}), (**_{4.2})$: SAprt

$\begin{matrix} A \\ Q_1 \\ q(B) \\ q_1(C) \\ Q_2 \\ D \end{matrix}$, $\text{SArt } \begin{matrix} A \\ Q_1 \\ q(B) \\ q_1(C) \\ Q_2 \\ D \end{matrix}$, where A appear into B through q, for (***)_{4.1}), (***)_{4.2}):
 $\begin{matrix} Q_2 \\ D \end{matrix}$ SAprt , $\begin{matrix} Q_2 \\ D \end{matrix}$ SArt , where D is displaced from C through q.

4.1 Fuzzy SAprt – elements

Definition 4.1.1. The fuzzy set of elements $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$ by actions $Q_1 = (Q_{11}, Q_{12}, \dots, Q_{1n})$, including virtual actions, at one point q of space X we shall call fuzzy SAprt – element (designation - fSAprt – element), and such a point in space is called fuzzy capacity of the fSAprt – element. We shall denote

$\begin{matrix} \tilde{x} \\ \text{fSAprt } Q_1 \\ q \end{matrix}$. The result of this process we shall denote $\begin{matrix} \tilde{x} \\ \text{fSArt } Q_1 \\ q \end{matrix}$.

Definition 4.1.2. $\begin{matrix} \tilde{x} \\ \text{fSAprt } Q_1 \\ q \end{matrix}$ —dynamic with actions $Q_1 = (Q_{11}, Q_{12}, \dots, Q_{1n})$

fuzzy set $\tilde{x}$ at q.

Definition 4.1.3. An ordered fuzzy set of elements at one point q in space with

actions $Q_1 = (Q_{11}, Q_{12}, \dots, Q_{1n})$: $\begin{matrix} \vec{r} \\ \text{fSAprt } Q_1 \\ q \end{matrix}$, $r = \tilde{x}$, is called an ordered fSAprt –

element.

It's allowed to sum fSAprt– elements: $\begin{matrix} \tilde{x} \\ \text{fSAprt } Q \\ q \end{matrix} + \begin{matrix} \tilde{y} \\ \text{fSAprt } Q \\ q \end{matrix} = \begin{matrix} \tilde{x} \cup \tilde{y} \\ \text{fSAprt } Q \\ q \end{matrix}$, $Q =$

$(Q_1, Q_2, \dots, Q_n)$. These structures are more suitable for using fuzzy sets for energy space, for any objects. The operator fSAprt is adapted for ordinary energies, using their property to overlap.

Fcapacity_Q in itsel_Qf.

Definition 4.1.4. The fcapacity_Q B in itsel_Qf of the first type is the fuzzy capacity containing with actions $Q = (Q_1, Q_2, \dots, Q_n)$ itsel_Qf as an element. Denote fS_1AfQB .

Definition 4.1.5. The fuzzy $f\text{capacity}_Q$ B in $\text{itsel}_Q f$ of the second type is the fuzzy capacity that contains with actions Q elements from which it can be generated. Denote fS_2AfQB .

An example of the fuzzy capacity in $\text{itsel}_Q f$ of the first type is a fuzzy set containing $\text{itsel}_Q f$. An example of capacity in $\text{itsel}_Q f$ of the second type is a living organism since it contains a program: DNA and RNA.

Definition 4.1.6. The partial $f\text{capacity}_Q$ B in $\text{itsel}_Q f$ of the third type is the fuzzy capacity B in $\text{itsel}_Q f$, which partially contains with actions Q $\text{itsel}_Q f$ or contains with actions Q elements from which it can be generated in part or both. Let us denote fS_3AfQB .

All $f\text{capacity}_Q$ in $f\text{sel}_Q f$ -space are fuzzy capacities in themselves by definition. $f\text{capacity}_Q$ in themselves can appear as $fS\text{Art}$ -capacities and ordinary fuzzy capacities $_Q$. In these cases, the usual fuzzy measures and methods of fuzzy topology are used.

Connection of $fS\text{Aprt}$ - elements with $f\text{capacity}_Q$ in themselves [1].

For example, $fS\text{Art } Q \begin{matrix} \{\tilde{R}\} \\ \tilde{g}\{\tilde{R}\} \end{matrix}$ is the $f\text{capacity}_Q$ in $\text{itsel}_Q f$ of the second type if $\tilde{g}\{\tilde{R}\}$ is a fuzzy program capable of generating $\{\tilde{R}\}$ by actions Q .

Consider a third type of $f\text{capacity}_Q$ in $\text{itsel}_Q f$. For example, based on $fS\text{Aprt } Q \begin{matrix} \tilde{x} \\ q \end{matrix}$, where $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, ..., x_n|\mu_{\tilde{x}}(x_n))$ i.e. n - elements at one point, we can consider the $f\text{capacity}_Q$ fS_3AfQ in $\text{itsel}_Q f$ with m elements from $\tilde{x}$, $m < n$, which is formed according to the form (2.1), that is, the structure $fS\text{Aprt } Q \begin{matrix} \tilde{x} \\ q \end{matrix}$ contains by actions Q only m elements, or in forms (2.1.1) - (2.1.5), summarizing it. $f\text{capacity}_Q$ in themselves of the third type can be formed for any other structure, not necessarily $fS\text{Aprt}$, only by necessarily reducing the number of elements in the structure, in particular, using form (2.2). Structures more complex than fS_3Af can

be introduced. For example, through a form (2.3), where A is compressed by actions Q (fits by actions Q) in C in the compression by actions Q fuzzy structure B in C (i.e., in the fuzzy structure $\text{fSAprt}_{\frac{B}{C}}^Q$); or through the forms (2.3.1) - (2.4) and corresponding generalizations of (2.4) on (2.3.1) - (2.3.4), etc.

(2.3.1) - (2.3.4) schematically interpret the fuzzy formation of fuzzy capacity in it sel_Qf through a pseudo 3-connected form with a 2-connected form. The ideology of fSApr_t and fS₃Af can be used for programming.

Remark 4.1.1. Fuzzy sel_Qf, in particular, according to a form- fuzzy analogue of the form of type (2.1):

$$(1 \parallel m_1, (2 \parallel m_2, 1 \parallel m_3)) \quad (2.1^*),$$

m_i ($i=1,2,3$)– the fuzziness of the indicated positions. For example

- 1) fuzzy forming from element with fuzziness m in the form $\{2,1\}$: $(1 \parallel m, (2, 1))$
- 2) fuzzy forming from element in the form $\{2,1\}$ with fuzziness m: $(1, (2, 1) \parallel m)$
- 3) fuzzy formation of partial sel_Qf in the form (2.1) with fuzziness m: $(1, (2, 1) \parallel m)$
- 4) It is also possible to generalize the other remaining forms (2.1) – (2.4) to fuzzy forms
- 5) etc.

Math sel_Qf fuzzy [1].

Let's consider fSApr_t arithmetic first:

1. Simultaneous different fuzzy arithmetic operations $Q = (+|\mu_{\tilde{Q}}(+), \vee$

$\mu_{\tilde{Q}}(\wedge)|, \dots, *|\mu_{\tilde{Q}}(*))$ with a fuzzy set of elements $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|$

$\mu_{\tilde{x}}(x_n))$ is carried out using $\text{fSAprt}_{\frac{\tilde{x}}{q}}^Q$.

2. Similarly for simultaneous execution of various operations: $\text{fSAprt}_{\frac{\tilde{x}\tilde{q}}{r}}^Q$, where

$\tilde{q}=(q_1|\mu_{\tilde{q}}(q_1), q_2|\mu_{\tilde{q}}(q_2)|, \dots, q_n|\mu_{\tilde{q}}(q_n))$ q_i -an operation, $i = 1, \dots, n$.

3. Similarly, for the simultaneous execution of various operators: $\text{fSAprt}_{\tilde{F}\tilde{x}}^Q$,
 r
 where $\tilde{F}=(F_1|\mu_{\tilde{F}}(F_1), F_2|\mu_{\tilde{F}}(F_2)|, \dots, F_n|\mu_{\tilde{F}}(F_n)|)$ F_i is an operator, $i = 1, \dots, n$.
4. The arithmetic itsel_{Qf} for fcapacities_Q in themselves will be similar:
 simultaneous different fuzzy arithmetic operations $Q - fS_1AfQ\{\tilde{x}\}$, (or
 $fS_3AfQ\{\tilde{x}\}$ for the third type.
5. Similarly with different operations: $fS_1AfQ\{\tilde{x}\tilde{q}\}$, $(fS_3AfQ\{\tilde{x}\tilde{q}\})$, and
 with different operators: $fS_1AfQ\{\tilde{F}\tilde{x}\}$, $(fS_3AfQ\{\tilde{F}\tilde{x}\})$.
6. Let's denote $\text{sel}_{Qf} -(\text{sel}_{Qf} -\tilde{Q})$ through $\text{sel}_{Qf}^2 -\tilde{Q}$, $\text{fS}(n, \tilde{Q}) = \text{sel}_{Qf} -(\text{sel}_{Qf} -(\dots(\text{sel}_{Qf} -\tilde{Q}))) = \text{sel}_{Qf}^n -\tilde{Q}$ for n -multiple fuzzy sel_{Qf} .

$\text{ffOperator itsel}_{Qf}$ [1].

Definition 4.1.7. An operator that transforms $\text{fSAprt}_{\tilde{F}\tilde{x}}^Q$ into any $fS_iAfQ\{\tilde{b}\}$, $i = 2, 3$; where $\{\tilde{b}\} \subset \{\tilde{x}\}$; is the foperator itsel_{Qf} , foperator is designation for fuzzy operator.

About fSAprt and fS_3AfQ programming.

The ideology of fSAprt and fS_3AfQ can be used for programming. Here are some of the fSAprt programming operators:

1. Simultaneous program operations Q with the expressions $\tilde{p} = (p_1|\mu_{\tilde{p}}(p_1), p_2|$

$\mu_{\tilde{p}}(p_2)|, \dots, p_n|\mu_{\tilde{p}}(p_n))$. This is implemented via $\text{fSAprt}_{\tilde{p}}^Q$.

2. Simultaneous program operations Q with checking the fuzzy set of conditions $\tilde{g}=(g_1|\mu_{\tilde{g}}(g_1), g_2|\mu_{\tilde{g}}(g_2)|, \dots, g_n|\mu_{\tilde{g}}(g_n)|)$ for the fuzzy set of expressions $\tilde{B}=(B_1|\mu_{\tilde{B}}(B_1), B_2|\mu_{\tilde{B}}(B_2)|, \dots, x_n|\mu_{\tilde{B}}(B_n)|)$ Implemented via

$\text{fSAprt}_{\tilde{B}}^Q \{ \tilde{B} \} \{ \tilde{g} \}$ then $\tilde{H}$. where $\tilde{H}$ can be anything.

3. Similarly for loop operators and others.

fS_3AfQ – fuzzy software operators will differ only in that the aggregates $\{\tilde{x}\}, \{\tilde{p}\}, \{\tilde{B}\}, \{\tilde{g}\}$ will be formed from the corresponding fSAprt program operators in form (2.1) or forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*) for more complex operators.

The OS (operating system), the computer's principles, and the modes of operation for this programming are interesting. But this is already the material for the following publications.

Using elements of the mathematics of fSAprt we introduce the concept of fSAprt–change in physical fuzzy quantity $\tilde{B}$: $fSAprt \begin{matrix} \{\Delta_1 \tilde{B}, \dots, \Delta_n \tilde{B}\} \\ Q \\ q \end{matrix}$. Then the mean fSAprt- velocity will be $\tilde{v}_{cpfst}(t, \Delta t) = fSAprt \begin{matrix} \left\{ \frac{\Delta_1 \tilde{B}}{\Delta t}, \dots, \frac{\Delta_n \tilde{B}}{\Delta t} \right\} \\ Q \\ q \end{matrix}$. and fSAprt-velocity at time t : $\tilde{v}_{fst} = \lim_{\Delta t \rightarrow 0} \tilde{v}_{cpfst}(t, \Delta t)$. fSAprt– acceleration $a_{fst} = \frac{d\tilde{v}_{fst}}{dt}$.

When using fSAprt with "target weights", we get, depending on the "target weights", one or another modification, namely, for example, the velocity $\tilde{v}_{fst}^g$ (with a "target weight" f in the case when two fuzzy velocities $\tilde{v}_1, \tilde{v}_2$ are involved in the fuzzy set $\{\tilde{v}_1, \tilde{v}_2\}$ for $\tilde{v}_{fst}^g = fSAprt \begin{matrix} \{\tilde{v}_1, \tilde{v}_2\} \\ Q \\ x \end{matrix}$ g – instantaneous replacement with actions Q we get an instantaneous substitution $\tilde{v}_1$ by $\tilde{v}_2$ at point x of space at time t_0 .

Consider, in particular, some examples: 1) $fSAprt \begin{matrix} e \\ Q \\ \{x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2)\} \end{matrix}$ describes the fuzzy presence of the same electron e at two different fuzzy points $\{x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2)\}$ by actions Q . 2) The nuclei of atoms can be considered as fSAprt elements.

Similarly, the concepts of fSAprt- force and fSAprt- energy, for example,

$$EQ_{fSAprt}^g = fSAprt \begin{matrix} \{E_1, E_2\} \\ Q \\ x \end{matrix} \text{ it would mean the instantaneous fuzzy replacement}$$

of fuzzy energy E_1 by E_2 at time t_0 with actions Q . Two aspects of fSAprt–energy should be distinguished: 1) carrying out the desired "target weight" and 2) fixing the result of it. Do not confuse energy - fSAprt (the node of energies) with fSAprt – energy that generates the node of energies, usually with the "target weights." In the case of ordinary energies, the energy node is carried out automatically.

Remark 4.1.4. fSAprt– elements are all ordinary, but with "target weights," they become peculiar. Here you need the necessary energy to carry them out. As a rule, this energy is at the level of sel_{Qf} . This is natural since it's much easier to manage elements of the k level via the elements of a more structured $k + 1$ level. Let us consider the concepts of capacities of physical objects in themselves. The question

arises about the sel_{Qf} -energy of the object. For example, $fSAprt \begin{matrix} DNA \\ Q \\ DNA \end{matrix}$ allows you

to reach the level of DNA sel_{Qf} -energy. The law of sel_{Qf} -energy conservation operates already at the level of sel_{Qf} -energy. Also, in addition to capacities in themselves, you can consider the types of containment of $onesel_{Qf}$ in $onesel_{Qf}$: the first type of the containment of $onesel_{Qf}$ in $onesel_{Qf}$: the second type of the containment of $onesel_{Qf}$ in $onesel_{Qf}$: potentially, for example, in the form of programming $onesel_{Qf}$, the third type is partial containment of $onesel_{Qf}$ in themselves—for example, sel_{Qf} -operator, sel_{Qf} -action, whirlwind. A container containing with actions Q $itsel_{Qf}$ can be formed by sel_{Qf} , i.e., containment in $onesel_{Qf}$. Let us clarify the concept of the term $fcapacity_Q$ in $itsel_{Qf}$: it is a $fcapacity_Q$ containing $itsel_{Qf}$ potentially. Consider sel_{Qf} -H, where Q , H can be anything, including $H = sel_{Qf}$; in particular, it can be any action. Therefore, sel_{Qf} -H is when H is made by $itsel_{Qf}$; it makes $itsel_{Qf}$. There is a partial sel_{Qf} -H for any H with partial sel_{Qf} -fulfillment. Let's consider several examples for capacities in themselves: ordinary lightning, electric arc discharge, and ball lightning.

$\{t\}$
 $\text{fSAprt } Q$, where $\{t\}$ - time points set, $(\tilde{o}, \tilde{x})$ - object $\tilde{o}$ in point $\tilde{x}$ from space X,
 $(\tilde{o}, \tilde{x})$

$\{t\}$
 give to enter in necessary time moments. The same for $\text{fSAprt } Q$.
 $(\tilde{o})$

$\{God - father, God - son, Holy Spirit\}$
 $\text{fSAprt } Q$ is three-concept representation, where

a is a point in the connectedness space. fSAprt is also great for working with

$\{str A\}$
 fuzzy structures, for example: 1) $\text{fSAprt } Q$ - the fuzzy structure A that fuzzy fits
 $\tilde{B}$

with actions Q into $\tilde{B}$, where $\tilde{B}$ can be any fuzzy capacity, another fuzzy structure

$\{str_H\}$
 etc. 2) $\text{fSAprt } Q$ - fuzzy embedding with actions Q fuzzy structure from H into
 $\tilde{R}$

$\tilde{R}$. Similarly for fuzzy displacement: 1) $\tilde{B}$
 Q fSAprt -displacement with actions Q of
 $str A$

$\tilde{B}$
 fuzzy structure A from $\tilde{B}$, 2) Q fSAprt -displacement with actions Q of the fuzzy
 str_Q

structure Q from $\tilde{B}$. To work with fuzzy structures, you can introduce a special

$\{\tilde{A}\}$
 operator fCAprt : $\text{fCAprt } Q$ - structures $\tilde{B}$ with actions Q by the fuzzy structure $\tilde{A}$,
 $\tilde{B}$

$\{str_H\}$
 $\text{fCAprt } Q$ - fuzzy structures $\tilde{R}$ with actions Q by the fuzzy structure from H, Q
 $\tilde{R}$ $\tilde{A}$

$\tilde{B}$
 CAprt destructors $\tilde{B}$ with actions Q by the fuzzy structure $\tilde{A}$, Q fCAprt
 str_H

destructors $\tilde{B}$ with actions Q by the fuzzy structure that fuzzy structures H.

Definition 4.1.8. A fuzzy structure with a second degree of freedom will be called fuzzy complete, i.e., "capable" of reversing itself concerning any of its elements explicitly, but not necessarily in known operators; it can form (create) new special foperators (in particular, special fuzzy functions).

$$\{\tilde{A}\}$$

In particular, $fCAprt_Q$ is such structure.

$$\{\tilde{A}\}$$

Similarly, for working with models, each is structured by its structure; for example, use fSAprt-groups, fSAprt-rings, fSAprt-fields, fSAprt-spaces, sel_Qf -fgroups, sel_Qf -frings, sel_Qf -ffields, and sel_Qf -fspaces. Like any task, this is also a fuzzy structure of the appropriate fuzzy capacity.

sel_Qf -H (sel_Qf -hydrogen), like other sel_Qf -particles, does not exist in the ordinary, but all sel_Qf -molecules, sel_Qf -atoms, and sel_Qf -particles are elements of the fuzzy energy space.

Remark 4.1.5. The concept of elements of physics fSAprt is introduced for energy space. The corresponding concept of elements of chemistry fSAprt is introduced

accordingly. Examples: 1) $E_{ffsprt}^g = fSAprt_{\substack{Q \\ x}}^{\{a_1g, a_2\}}$ the energy of instantaneous

substitution a_1 by a_2 , where a_1 , and a_2 are chemical elements, g is instant replacement. Similarly,

$$fSAprt_{\substack{\{\text{chemical elements with "tone can consider for the node of chemical reactions fSAprt target weights"}\} \\ Q \\ \text{reaction}}}.$$

The ideology of fSAprt elements allows us to go to the border of the world familiar to us, which allows us to act more effectively.

4.2 The dynamic fSAprt – elements

We considered stationary fSAprt – elements earlier. Here we consider dynamic fSAprt – elements (designation - dfSAprt) [1].

Definition 4.2.1. The process of fitting by actions $Q(t) = (Q_1(t), Q_2(t), \dots, Q_n(t))$ a fuzzy set of elements $\tilde{x}(t) = (x_1(t)|\mu_{\tilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t)|\mu_{\tilde{x}(t)}(x_n(t)))$.

into one point $q(t)$ of space X at time t will be called a dynamic fSAprt– element

(dfSAprt). We will denote $\text{fSAprt}(t)_{Q(t)}^{x(t)}$.

Definition 4.2.2. Fitting by actions $Q(t)$ an ordered fuzzy set of elements into one point in space is called a dynamic ordered fSAprt–element.

It is allowed to sum dynamic fSAprt– elements:

$$\text{fSAprt}(t)_{Q(t)}^{a(t)} + \text{fSAprt}(t)_{Q(t)}^{b(t)} = \text{fSAprt}(t)_{Q(t)}^{a(t) \cup b(t)}$$

Dynamic containment by actions $Q(t)$ of onesel_{Qf} .

Definition 4.2.3. The dynamic fuzzy capacity $H(t)$ is fitting by actions $Q(t)$ into $H(t)$.

Definition 4.2.4. Dynamic fSAprt-capacity $\text{fSAprt}(t)_{Q(t)}^{R(t)}$ is the process of embedding $R(t)$ by actions $Q(t)$ into $H(t)$.

Definition 4.2.5. The dynamic fuzzy capacity $A(t)$ containing with actions Q itsel_{Qf} as an element of the first type is the process of containing with actions Q $B(t)$ in $B(t)$. Denote $fS_1AfQ(t)B(t)$.

Definition 4.2.6. Dynamicfcapacity $_Q$ $C(t)$ in itsel_{Qf} of the second type is the process of containing with actions Q elements from which it can be generated. Let's denote $fS_2AfQ(t)C(t)$.

Definition 4.2.7. Dynamicpartial fuzzy capacity $B(t)$ in itsel_{Qf} of the third type is a process of partial containment with actions Q of $B(t)$ in itsel_{Qf} or elements from which it can be generated with actions Q partially or both at the same time. Denote $fS_3AfQ(t)B(t)$.

All dynamic fuzzy capacities in themselves in a dynamic sel_{Qf} -space are, by definition, capacities in themselves. Dynamic fuzzy capacity itsel_{Qf} can manifest

itsel_{Qf} as dynamic fSAprt-capacity and ordinary dynamic fuzzy capacity. In these cases, the usual measures and methods of topology are used.

Connection of dynamic fSAprt– elements with dynamic containment with actions Q of onesel_{Qf}.

Consider third type of dynamic partial containment with actions Q of onesel_{Qf}. For

example, based on fSAprt(t) $\frac{x(t)}{q(t)}$, where $\tilde{x}(t)=(x_1(t)|\mu_{\tilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\tilde{x}(t)}(x_2(t)), \dots,$

$x_n(t)|\mu_{\tilde{x}(t)}(x_n(t)))$, i.e. n – elements at one point q(t), we can consider the dynamic

fuzzy capacity in itsel_{Qf} fS₃AfQ(t) with m elements from $\tilde{x}(t)$, m<n, which is process formed according to the form (2.1), that is, only m elements from $\tilde{x}(t)$ are

$\frac{x(t)}{q(t)}$
in the structure fSAprt(t) $\frac{x(t)}{q(t)}$.

Dynamic containment of onesel_{Qf} of the third type can be formed for any other structure, not necessarily fSAprt, only through the obligatory reduction in the number of elements in the structure. In particular, using the forms (2.1) - (2.4), (2.1*) and analogs of forms (2.1) – (2.4) by type (2.1*). It is possible to introduce structures more complex than fS₃AfQ(t).

Dynamicmath fuzzy itsel_{Qf}.

1. The process of simultaneous fuzzy arithmetic operations Q(t) of a fuzzy set of elements $\tilde{x}(t)=(x_1(t)|\mu_{\tilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t)|\mu_{\tilde{x}(t)}(x_n(t)))$

$\frac{x(t)}{w(t)}$
realized by fSAprt(t) $\frac{x(t)}{w(t)}$.

2. Similarly for simultaneous execution of various operations:

fSAprt(t) $\frac{x(t)q(t)}{w(t)}$, where $\tilde{q}(t)=(q_1(t)|\mu_{\tilde{q}(t)}(q_1(t)), q_2(t)|\mu_{\tilde{q}(t)}(q_2(t)), \dots, q_n(t)|$

$\mu_{\tilde{q}(t)}(q_n(t)))$, q_i(t)-an operation, i = 1, ..., n.

3. Similarly, for the simultaneous execution of various operators:

$$\frac{F(t)x(t)}{fSAprt(t) \quad Q(t) \quad w(t)} \quad \text{where } F(t)=(F_1(t)|\mu_{F(t)}(F_1(t)), F_2(t)|\mu_{F(t)}(F_2(t)), \dots, F_n(t)|$$

$\mu_{F(t)}(F_n(t))|), F_i(t)$ is an operator, $i = 1, \dots, n$.

4. Dynamic arithmetic fuzzy itself $_{Qf}$ for containments of onesel $_{Qf}$ will be similar: dynamic fuzzy arithmetic operations $Q(t) - fS_1AfQ(t)\{x(t)\}$, (or $fS_3AfQ(t)\{x(t)\}$ for the third type.

5. Similarly with different fuzzy operations: $fS_1AfQ(t)\{x(t)q(t)\}$, (or $fS_3AfQ(t)\{x(t)q(t)\}$) and with different fuzzy operators:

$$fS_1AfQ(t)\{F(t)x(t)\}, \text{ (or } fS_3AfQ(t)\{F(t)x(t)\} \text{)} .$$

6. Denote dynamic sel $_{Qf}$ -(dynamic sel $_{Qf}$ -H(t)) through dynamic sel $_{Qf}^2$ -H(t) ,
agS(t)(n,H(t))= dynamic sel $_{Qf}$ -(dynamic sel $_{Qf}$ -(...(dynamic sel $_{Qf}$ -H(t))))
= dynamic sel $_{Qf}^n$ -H(t) for n-multiple dynamic sel $_{Qf}$.

Remark 4.2.1. The dynamic fSAprt-displacement of A(t) by actions Q(t) from B(t)

$$\frac{B(t)}{A(t)} \quad \frac{C(t)}{D(t)} \quad \frac{A(t)}{B(t)} \quad \text{will be denote by } Q(t)fSAprt(t) \text{ . Then the notation } \frac{Q_2(t)fSAprt(t)Q(t)}{D(t) \quad B(t)} \text{ is dynamic}$$

fSAprt-containment of A(t) by actions Q(t) in B(t) and dynamicfSAprt-displacement of D(t) by actions Q(t) from C(t) simultaneously. We can consider

$$\frac{A(t)}{B(t)} \quad \text{the concept of dynamicfSAprt- element as } fSAprt(t) \frac{Q(t)}{B(t)} \text{ , where } \frac{A(t)}{B(t)} \text{ fits by}$$

$$\frac{B(t)}{B(t)} \quad \text{actions } Q(t) \text{ in dynamic fuzzy capacity } \frac{B(t)}{B(t)} \text{ . Then } fSAprt(t) \frac{Q(t)}{B(t)} \text{ will mean } ffS_1f(t)$$

$$\frac{A(t)}{A(t)} \quad \frac{B(t)}{B(t)} \quad \text{denotes the dynamic expelling by actions } Q(t) \text{ fuzzy } A(t)$$

$$\text{onesel}_{Qf} \text{ out of onesel}_{Qf}, \quad \frac{A(t)}{A(t)} \quad \frac{A(t)}{A(t)} \quad \mu_2(t)fSAprt(t)\mu_1(t) \text{ —simultaneous dynamic containment}$$

by actions $Q(t)$ fuzzy $A(t)$ of $onesel_{Qf}$ in $onesel_{Qf}$ and dynamic expelling by

actions $Q(t)$ fuzzy $A(t)$ $onesel_{Qf}$ out of $onesel_{Qf}$. $\frac{A(t)}{Q(t)} fSAprt(t)$ will be called

dynamic anti- (fuzzy capacity) from $onesel_{Qf}$. For example, “white hole” in physics is such simple anti-(fuzzy capacity). The concepts of “white hole” and “black hole” were formulated by the physicists based on the subject of physics –the usual energies level. Mathematics allows you to deeply find and formulate the concept of singular points in the Universe based on the levels of more subtle energies. The experiments of the 2022 Nobel laureates Asle Ahlen, John Clauser, Anton Zeilinger correspond to the concept of the Universe as a capacity in $itsel_{Qf}$. The energy of sel_{Qf} -containment in $itsel_{Qf}$ is closed on $itsel_{Qf}$.

Hypothesis: the containment of the galaxy in $onesel_{Qf}$ as a spiral curl and the expelling out of $onesel_{Qf}$ defines its existence. A sel_{Qf} - capacity in $itsel_{Qf}$ as an element A is the god of A , the sel_{Qf} -capacity in $itsel_{Qf}$ as an element the globe—the god of the globe, the sel_{Qf} -capacity in $itsel_{Qf}$ as an element man-- the god of the man, the sel_{Qf} -capacity in $itsel_{Qf}$ as an element of the universe-- the god of the universe, the containment of A into $onesel_{Qf}$ is spirit of A , the containment of the Earth into $onesel_{Qf}$ is spirit of Earth, the containment of the man into $onesel_{Qf}$ is spirit of the man (soul), the containment of the universe into $onesel_{Qf}$ is spirit of the universe. We may consider the following axiom: any fuzzy capacity is the fuzzy capacity of $onesel_{Qf}$. This is for each energy fuzzy capacity.

Remark 4.2.2. With the help of dynamic $fSAprt$ -elements, the concepts of dynamic $fSAprt$ - force, dynamic $fSAprt$ – energy are introduced. For example,

$$EQ(t)_{fSAprt}^g = fSAprt(t) \frac{\{afE_1(t)\tilde{g}, afE_2(t)\}}{Q(t) \tilde{w}(t)} \quad \text{will mean the process of instantaneous}$$

replacement $\tilde{g}$ of energy $afE_1(t)$ by $afE_2(t)$ at time t . Similarly, using $fS_i Af(t)Q(t)$,

the concepts of $fS_iAf(t)Q(t)$ -force, $fS_iAf(t)Q(t)$ -energy, $i=1,2,3$, and etc are introduced.

Remark 4.2.3. It is the containment of $onesel_Qf$ in $onesel_Qf$ by actions $Q(t)$ that can “give birth” to the $fcapacities_Q$ in $itsel_Qf$ – that is what sel_Qf -organization is.

Remark 4.2.4. $fSAprt(t) \frac{B(t)}{fSAprt(t)Q(t)}$ can increase sel_Qf - level of $\tilde{B}(t)$.

Remark 4.2.5. For example, the foperator $itsel_Qf$ is $fS_1AfQ(t)$.

Remark 4.2.6. May be considered the following derivatives: $\frac{d \tilde{A}(t) fSAprt(t) Q(t)}{dt}$,
 $\frac{B(t)}{d_Q fSAprt(t)} \frac{C(t)}{d_{Q_2(t) fSAprt(t) Q_1(t)}} \frac{A(t)}{D(t)} \frac{B(t)}{dt}, \frac{dfS_1AfQ(t)}{dt}, i=1,2,3.$

Remark 4.2.7. It is the containment of $onesel_Qf$ in $itsel_Qf$ by actions $Q(t)$ as an fuzzy element that can be interpreted as dynamicfuzzy capacities in $itsel_Qf$.

Remark 4.2.8. Not every fuzzy capacity containing with actions Q $itsel_Qf$ as an element will manifest $itsel_Qf$ as a sedentary fuzzy capacity or fuzzy capacity.

About dynamicfSAprt and $fS_iAfQ(t)$ programming [1].

The ideology of dynamicfSAprt and $fS_3AfQ(t)$ can be used for programming:

1. The process of simultaneous program actions $Q(t)$ of the fuzzy expressions $p(t)=(p_1(t)|\mu_{p(t)}(p_1(t)), p_2(t)|\mu_{p(t)}(p_2(t)), ..., p_n(t)|\mu_{p(t)}(p_n(t)))$

to the fuzzy variables $\tilde{x}(t)=(x_1(t)|\mu_{\tilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\tilde{x}(t)}(x_2(t))|, \dots, x_n(t)|\mu_{\tilde{x}(t)}(x_n(t)))$. This is implemented via $fSAprt(t) \frac{p(t)}{w(t)} Q(t)$.

2. The process of simultaneous checking with program actions $Q(t)$ the fuzzy set of conditions $\tilde{g}(t)=(g_1(t)|\mu_{\tilde{g}(t)}(g_1(t)), g_2(t)|\mu_{\tilde{g}(t)}(g_2(t))|, \dots, g_n(t)|\mu_{\tilde{g}(t)}(g_n(t)))$ for the fuzzy set of expressions $\tilde{B}(t)=(B_1(t)|\mu_{\tilde{B}(t)}(B_1(t)), B_2(t)|\mu_{\tilde{B}(t)}(B_2(t))|, \dots, B_n(t)|\mu_{\tilde{B}(t)}(B_n(t)))$. Implemented via $fSAprt(t) \frac{IF \{ \{ \tilde{B}(t) \} \{ \tilde{g}(t) \} \} then \tilde{H}(t)}{Q(t)} \frac{w(t)}{w(t)}$ where $\tilde{H}(t)$ can be anything.

3. Similarly for fuzzy loop operators and others.

$fS_1 AfQ(t)$ - fuzzy fsoftware operators will differ only just because aggregates $\tilde{x}(t), p(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding processes by $fSAprt$ -program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

4.3 fSAprt – elements for continual fuzzy sets

Earlier, we considered finite-dimensional discrete $fSAprt$ -elements and $sel_Q f$ - (fuzzy capacities) in itself as an element. Here we believe some continual $fSAprt$ -elements and continual $sel_Q f$ - (fuzzy capacities) in themselves as an element [1].

Definition 4.3.1. The fuzzy set of continual elements $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$ at one point w of space X will be called continual $fSAprt$ – element, and such a point in space will be called $fcapacity_Q$ of the continual $fSAprt$ – element.

We will denote $fSAprt_Q \frac{\tilde{x}}{w}$.

Definition 4.3.2. An ordered fuzzy set of continual elements by actions $Q_1 = (Q_{11}, Q_{12}, \dots, Q_{1n})$, including virtual actions, at one point in space is called an ordered continual fSAprt–element.

It's allowed to sum continual fSAprt – elements:
$$\underset{w}{fSAprtQ}^{\tilde{x}} + \underset{w}{fSAprtQ}^{\tilde{r}} = \underset{w}{fSAprtQ}^{\tilde{x} \cup \tilde{r}}$$
, where some or any elements may be ordered elements.

Definition 4.3.3. The continual sel_{Qf} - (fuzzy capacity) B in itsel_{Qf} as an element of the first type is the fuzzy capacity containing by actions $Q = (Q_1, Q_2, \dots, Q_n)$, including virtual actions, itsel_{Qf} as an element. Denote fS_1AfQB .

Definition 4.3.4. The ordered continual sel_{Qf} - (fuzzy capacity) B in itsel_{Qf} as an element of the first type is the ordered fuzzy capacity containing by actions $Q = (Q_1, Q_2, \dots, Q_n)$, including virtual actions, itsel_{Qf} as an element. Denote $\overrightarrow{fS_1AfQB}$.

For example, $fS_{\infty}^+ = (\sin \infty | \mu_{\sin \infty}(\sin \infty))$ is of this type. It denotes continual ordered sel_{Qf} - (fuzzy capacities) in itsel_{Qf} as an element of following type—the fuzzy range of simultaneous “activation” of fuzzy numbers from $[-1, 1]$ in mutual directions: $\uparrow I \downarrow_{-1}^1$. Also consider the following elements: $fS_{\infty}^- = (\sin -\infty | \mu_{\sin -\infty}(\sin -\infty)) - \downarrow I \uparrow_{-1}^1$, $fT_{\infty}^+ = (\text{tg} \infty | \mu_{\text{tg} \infty}(\text{tg} \infty)) - \uparrow I \downarrow_{-\infty}^{\infty}$, $fT_{\infty}^- = (\text{tg} -\infty | \mu_{\text{tg} -\infty}(\text{tg} -\infty)) - \downarrow I \uparrow_{-\infty}^{\infty}$, don't confuse with values of these functions. Such elements can be summarized. For example: $afS_{\infty}^+ + bfS_{\infty}^- = (a-b)fS_{\infty}^+ = (b-a)fS_{\infty}^-$, if fS_{∞}^+ and fS_{∞}^- have the same fuzzy structure of the fuzzy range from $[-1, 1]$.

Definition 4.3.5. The continual sel_{Qf} -(fuzzy capacity) B in itsel_{Qf}, as an element of the second type, is the capacity containing by actions $Q = (Q_1, Q_2, \dots, Q_n)$ fuzzy elements from which it can be generated. Let's denote fS_2AfQB .

Definition 4.3.6. Partial continual sel_{Qf} - (fuzzy capacity) B in itsel_{Qf} as an element of the third type is called continual (sel_{Qf} - fuzzy capacity) in itsel_{Qf} as an element that partially contains by actions itsel_{Qf} or contains by actions $Q = (Q_1, Q_2, \dots, Q_n)$

fuzzy elements from which it can be generated in part or both simultaneously.

Denote fS_3AfQB .

Also, may be considered operators for them. For example:

$$gS_{\infty}^+(t-t_0) = \begin{cases} fS_{\infty}^+, & t = t_0 \\ 0, & t \neq t_0 \end{cases}$$

All continual capacities in sel_{Qf} -space are continual sel_{Qf} -capacities in $itsel_{Qf}$ as an element by definition. The continual sel_{Qf} -capacities in $itsel_{Qf}$ as an element may appear as continual $fSAprt$ -capacities and usual continual capacities. In these cases, there are used typical measure and topology methods.

The connection of continual $fSAprt$ – elements with continual sel_{Qf} - (fuzzy capacities) in themselves as an element.

Consider a third type of continual sel_{Qf} - (fuzzy capacity) in $itsel_{Qf}$ as an element.

For example, based on $fSAprtQ$, where $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$, i.e. x_i
 w

- continual elements at one point, $i=1, 2, \dots, n$. The continual sel_{Qf} - (fuzzy capacity) in $itsel_{Qf}$ as an element with m continual elements from $\tilde{x}$, at $m < n$, can be considered as fS_3AfQ , which is formed by the form (2.1), i.e., only m continual

elements are located in the structure $fSAprtQ$. Continual sel_{Qf} - (fuzzy capacities)
 w

in $itsel_{Qf}$ as an element of the third type can be formed for any other structure, not necessarily fuzzy $fSAprt$, only by obligatory reducing the number of continual elements in the structure. In particular, using the forms (2.1) – (2.4). Structures more complex than fS_3AfQ can be introduced.

Mathematics fuzzy $itsel_{Qf}$ for continual $fSAprt$ -elements [1].

1. Simultaneous different fuzzy arithmetic operations $Q = (+|\mu_{\tilde{Q}}(+), \setminus|\mu_{\tilde{Q}}(\setminus)|, \dots, *|\mu_{\tilde{Q}}(*)|)$ with the continual elements of the fuzzy set $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n))$ is implemented using $fSAprtQ$.
 w

2. Similarly, for simultaneous execution of various operations: $fSAprt_{Q, \tilde{w}}^{\tilde{x}\tilde{q}}$,

where $\tilde{q}=(q_1|\mu_{\tilde{q}}(q_1), q_2|\mu_{\tilde{q}}(q_2)|, ..., q_n|\mu_{\tilde{q}}(q_n))$, q_i -an operation, $i = 1, \dots, n$.

3. Similarly, for the simultaneous execution of various operators: $fSAprt_{Q, \tilde{w}}^{\tilde{F}\tilde{x}}$,

where $\tilde{F}=(F_1|\mu_{\tilde{F}}(F_1), F_2|\mu_{\tilde{F}}(F_2)|, ..., F_n|\mu_{\tilde{F}}(F_n))$, F_i is an operator, $i = 1, \dots, n$.

4. For continual $sel_Q f$ - fcapacities $_Q$ in themself as an element will be similar: simultaneous different fuzzy arithmetic operations $Q - fS_1 AfQ\{\tilde{x}\}$, (or $fS_3 AfQ\{\tilde{x}\}$ for the third type).

5. Similarly with different operations: $fS_1 AfQ\{\tilde{x}\tilde{q}\}$, $(fS_3 AfQ\{\tilde{x}\tilde{q}\})$, and with different operators: $fS_1 AfQ\{\tilde{F}\tilde{x}\}$, $(fS_3 AfQ\{\tilde{F}\tilde{x}\})$.

Remark 4.3.1. fSAprt-displacement of A from B with actions Q will be denoted

by $QfSAprt$. Then the notation $Q_2fSAprt_{Q_1}$ is fSAprt-containment of A in B with

actions Q_1 , and fSAprt-displacement of D from C with actions Q_2 , simultaneously. Three in one is fSAprt

$\{\infty \text{ in itself, an element that is not anyone's element, } 0 \text{ out oneself}\}$
 Q , a- point
 $\propto$

space connectedness.

We can consider the concept of a continual fSAprt - element as $fSAprt_{Q, \tilde{w}}^{\tilde{F}\tilde{x}}$, where

A fits with actions Q in continual fuzzy capacity B. Then $fSAprt_{Q, \tilde{w}}^{\tilde{F}\tilde{x}}$ will mean

$fS_1 AfQB$.

These elements are used for fSAprt-coding, fSAprt-translation, fuzzy coding $sel_Q f$, and fuzzy translation $sel_Q f$ for networks, which is suitable for electric current of ultrahigh frequency. More complex elements can be considered as continual sets of numbers with their " activation " in mutual directions.

For example, ranges of function values, particularly those representing the shape of lightning. Differential geometry can be applied here. Also, n-dimensional elements can be considered. The space of such elements is Banach space if we introduce the usual norm for functions or vectors. We call this space - fSAelb-space. Then we introduce the scalar product for functions or vectors and get the Hilbert space. We call this space fSAelh-space. In particular, one can try to describe some processes with these elements by differential equations and use methods from [18]. You can also try to optimize and research some processes with these elements using the techniques from [19]. Let's introduce operators for transforming fuzzy capacity to sel_{Qf} - (fuzzy capacity) in itsel_{Qf} as an element: $fQ_1\text{SAf}Q(B)$

transforms B to $f_1\text{SAf}QB$, $fQ_0\text{SA}(B)$ transforms B to $\overset{B}{Qf\text{SAprt}}, \text{fSAOf}Q(B)$

transforms B to $\uparrow fB \downarrow$ -- ordered sel_{Qf} -fuzzy capacity in itsel_{Qf} as an element of simultaneous "activation" of all elements of B in mutual directions. For example, $\text{fSAOf}Q([-1,1]) = fQS_{\infty}^+$, $\text{fSAOf}Q([1,-1]) = fS_{\infty}^-$, $\text{fSAOf}Q([-\infty,\infty]) = fT_{\infty}^+$, $\text{fSAOf}Q([\infty,-\infty]) = fT_{\infty}^-$. The operator $(fQ_1\text{SAf}Q(B))^2$ increases sel_{Qf} - (fuzzy level) for B : it transforms $\text{sel}_{Qf} - fB = ff_1\text{SAf}QB$ to $\text{sel}_{Qf}^2 - fQB$, $(fQ_1\text{SAf}Q(B))^n \rightarrow \text{sel}_{Qf}^n - fQB$, $e^{fQ_1\text{SAf}Q(B)} \rightarrow e^{fQ\text{sel}_{Qf}} - fQB$. Let us introduce the

following notations: $\overset{B}{Q} \text{fSAprt} \text{ by } 2fQ\text{osel}_{Qf} - fB, \text{fSAprt } \overset{(B,B)}{Q} \text{ by } 2fQ\text{sel}_{Qf} - fB,$

$\text{fSAprt } \overset{B}{Q} \text{ by } 1/2fQ\text{sel}_{Qf} - fB, \text{fSAprt } \overset{B}{q(B)} \text{ by } qfQ\text{sel}_{Qf} - fB, \overset{B}{Q} \text{fSAprt by } \overset{B}{q(B)}$

$q()fQ\text{osel}_{Qf} - fB$, q -any operator, $\overset{B}{Q} \text{fSAprt by } NfQ\text{osel}_{Qf} - fB, q_i = B, i = (q_1, \dots, q_N)$

$1, \dots, N; \overset{B}{Q} \text{fSAprt } \overset{B}{Q} \text{ by } fQ\text{sel}_{Qf} - fB - fQ\text{osel}_{Qf} - fB, \overset{q_2(B)}{Q} \text{fSAprt } \overset{B}{q_1(B)} \text{ by } q_1fQ\text{sel}_{Qf} -$

$$\begin{aligned}
& fB - \left(\begin{matrix} q_3() \\ q_2() \end{matrix} \right) fQsel_Qf - fB, \quad \begin{matrix} B \\ Q \end{matrix} fCAprt \text{ by } 2CfQsel_Qf - fB, \quad \begin{matrix} (B,B) \\ Q \end{matrix} \text{ by } 2CfQsel_Qf - \\
& \quad \begin{matrix} B \\ (B,B) \end{matrix} fB, fCAprt \quad \begin{matrix} B \\ Q \end{matrix} \text{ by } 1/2CfQsel_Qf - fB, fCt_{q(A)}^A \text{ by } qCfself - fA, \quad \begin{matrix} B \\ q(B) \end{matrix} fCAprt \text{ by} \\
& \quad q()CfQsel_Qf - fB, \quad q\text{-any operator}, \quad \begin{matrix} B \\ Q \end{matrix} fCAprt \text{ by } NCfQsel_Qf - fB, \quad q_i = B, \\
& \quad (q_1, \dots, q_N)) \\
& \quad i = 1, \dots, N; \quad \begin{matrix} B \\ B \end{matrix} QffCSprt_Q \text{ by } CfQsel_Qf - fB - CfQsel_Qf - fB, \quad \begin{matrix} q_2(B) \\ Q \end{matrix} fCAprt \quad \begin{matrix} B \\ Q \end{matrix} \text{ by} \\
& \quad \begin{matrix} q_3(B) \\ q_1(B) \end{matrix} \\
& \quad q_1CfQsel_Qf - fB - \left(\begin{matrix} q_3() \\ q_2() \end{matrix} \right) CfQsel_Qf - fB, \quad fSA2prt_Q = (fQsel_Qf - fB, fQsel_Qf - fB), \\
& \quad \begin{matrix} B \\ B \end{matrix} fSANprt_Q = (q_1, \dots, q_N), \quad q_i = fQsel_Qf - fB, \quad i = 1, \dots, N. \quad fQsel_Qf (fSAprt_Q) = \\
& \quad \begin{matrix} C \\ B \end{matrix} \\
& \quad \begin{matrix} C \\ fSAprt_Q \end{matrix} \\
& \quad \begin{matrix} B \\ fSAprt \end{matrix} \quad \begin{matrix} B \\ Q \end{matrix} . \text{ Can be considered } Q(\begin{matrix} B \\ B \end{matrix} fSAprt_Q), \quad Q\text{-any operator}. \\
& \quad \begin{matrix} C \\ fSAprt_Q \end{matrix} \\
& \quad \begin{matrix} B \\ B \end{matrix}
\end{aligned}$$

4.4 The dynamic continual fuzzy SAprt – elements

Definition 4.4.1. The process of containing with actions $Q(t)$ in the fuzzy set of continual elements $\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$ at one point w of the space X at time will be called the dynamic continual fuzzy

$\tilde{x}(t)$
SAprt – element. We will denote $fSAprt(t)_{Q(t)}$.
 $q(t)$

Definition 4.4.2. The process of containing with actions $Q(t)$ an ordered fuzzy set of continual elements at one point in space is called dynamic continual ordered fuzzy SAprt – element.

It is allowed to sum dynamiccontinual fSAprt– elements:

$$\begin{array}{ccc} \widetilde{a(t)} & \widetilde{b(t)} & \widetilde{a(t)} \cup \widetilde{b(t)} \\ \text{fSAprt}(t)_{Q(t)} + \text{fSAprt}(t)_{Q(t)} = \text{fSAprt}(t)_{Q(t)} & & \\ q(t) & q(t) & q(t) \end{array}$$

Dynamic continual containment of onesel_{Qf} in onesel_{Qf} as an element.

Definition 4.4.3. The dynamic continual fuzzy capacity $H(t)$ is called the process of embedding in $H(t)$.

Definition 4.4.4. The dynamic continual fSAprt -capacity $\text{fSAprt}(t)_{Q(t)} \begin{array}{c} \widetilde{R(t)} \\ H(t) \end{array}$ is

called the process of embedding $\widetilde{R(t)}$ in $H(t)$ with actions $Q(t)$.

Definition 4.4.5. The dynamic containment **fuzzy** continual $B(t)$ of onesel_{Qf} with actions $Q(t)$ of the first type is the process of fuzzy putting $B(t)$ into $B(t)$. Denote $fS_1AfQ(t)B(t)$.

Definition 4.4.6. We will call a dynamic embedding with actions $Q(t)$ of a fuzzy continual $C(t)$ into itself_{Qf} a dynamic embedding with actions $Q(t)$ of the second type if it contains with actions $Q(t)$ dynamic continual elements from which it can be generated. Denote $fS_2AfQ(t)C(t)$.

Definition 4.4.7. The partial dynamic containment with actions $Q(t)$ continual **fuzzy** $B(t)$ of onesel_{Qf} of the third type is the process of partial embedding with actions $Q(t)$ continual **fuzzy** $B(t)$ into onesel_{Qf} or contains with actions $Q(t)$ with actions Q dynamic fuzzy continual elements from which it can be generated in part or both simultaneously. Denote $fS_3AfQ(t)B(t)$.

The connection of dynamic continual fSAprt -elements with dynamic **containment** with actions $Q(t)$ of onesel_{Qf} in onesel_{Qf} as an element.

Let us consider the partial dynamic continual **containment** with actions $Q(t)$ of onesel_{Qf} in onesel_{Qf} as an element of the third type. For example, based on

$$\begin{array}{c} \widetilde{x(t)} \\ \text{fSAprt}(t)_{Q(t)}, \text{ where } \widetilde{x(t)} = (x_1(t)|\mu_{\widetilde{x(t)}}(x_1(t)), x_2(t)|\mu_{\widetilde{x(t)}}(x_2(t)), \dots, x_n(t)|\mu_{\widetilde{x(t)}}(x_n(t))), \\ w(t) \end{array}$$

i.e. n - continual elements at one point $w(t)$, one can consider the dynamic

containment $fS_3AfQ(t)$ of $onesel_{Qf}$ in $onesel_{Qf}$ as an element with m continual elements from $\tilde{x}(t)$, $m < n$, which is a process that is necessary form according to the form (2.1), i.e. only m continual elements from $\tilde{x}(t)$ are located in the structure

$$\begin{matrix} \tilde{x}(t) \\ fSAprt(t) \quad Q(t) \\ w(t) \end{matrix}.$$

Dynamic continual containments with actions Q of $onesel_{Qf}$ in

$onesel_{Qf}$ as an element of the third type can be formed for any other structure, not necessarily $fSAprt$, only by necessarily reducing the number of continual elements in the structure. In particular, with the help of forms (2.1) – (2.4). It is possible to introduce structures more complex than $fS_3AfQ(t)$.

Dynamic fuzzy continual mathematics sel_{Qf} [1].

1. The process of simultaneous fuzzy arithmetic operations $Q(t)$ of the fuzzy set of continual elements $\tilde{x}(t) = (x_1(t)|\mu_{\tilde{x}(t)}(x_1(t)), x_2(t)|\mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t)|$

$$\begin{matrix} \tilde{x}(t) \\ \mu_{\tilde{x}(t)}(x_n(t)) \end{matrix} |) \text{ is realized by } \begin{matrix} fSAprt(t) \quad Q(t) \\ w(t) \end{matrix}.$$

2. Similarly for simultaneous execution of various operations:

$$\begin{matrix} \tilde{x}(t)\tilde{q}(t) \\ fSAprt(t) \quad Q(t) \\ w(t) \end{matrix}, \text{ where } \tilde{q}(t) = (q_1(t)|\mu_{\tilde{q}(t)}(q_1(t)), q_2(t)|\mu_{\tilde{q}(t)}(q_2(t)), \dots, q_n(t)|\mu_{\tilde{q}(t)}(q_n(t)) |), q_i(t) \text{-an operation, } i = 1, \dots, n.$$

3. Similarly, for the simultaneous fuzzy execution of various operators:

$$\begin{matrix} \tilde{F}(t)\tilde{x}(t) \\ fSAprt(t) \quad Q(t) \\ w(t) \end{matrix}, \text{ where } \tilde{F}(t) = (F_1(t)|\mu_{\tilde{F}(t)}(F_1(t)), F_2(t)|\mu_{\tilde{F}(t)}(F_2(t)), \dots, F_n(t)|\mu_{\tilde{F}(t)}(F_n(t)) |), F_i(t) \text{ is an operator, } i = 1, \dots, n.$$

4. The dynamic arithmetic sel_{Qf} for the dynamic continual containments of $onesel_{Qf}$ will be similar: dynamic fuzzy arithmetic operations $Q(t)$ - $fS_1AfQ(t)\{\tilde{x}(t)\}$, (or $fS_3AfQ(t)\{\tilde{x}(t)\}$ for the third type.

5. Similarly with different fuzzy operations: $ffS_1f(t)Q(t)\{x(t)q(t)\}$, (or $ffS_3f(t)Q(t)\{x(t)q(t)\}$), and with different fuzzy operators: $ffS_1f(t)Q(t)\{F(t)x(t)\}$, (or $ffS_3f(t)Q(t)\{F(t)x(t)\}$).
6. Denote dynamic continual $\text{sel}_Q f$ - (dynamic continual $\text{sel}_Q f - Q(t)$) through dynamic continual $\text{sel}_Q f^2 - Q(t)$, $fS(t)(n, Q(t)) = \text{dynamic continual } \text{sel}_Q f - (\text{dynamic continual } \text{sel}_Q f - (\dots (\text{dynamic continual } \text{sel}_Q f - Q(t)))) = \text{dynamic continual } \text{sel}_Q f^n - Q(t)$ for n-multiple dynamic continual $\text{sel}_Q f$.

Remark 4.4.1. Dynamic continual fSAprt-displacement of $A(t)$ from $B(t)$ with

actions Q will be denote through $Q(t) \text{fSAprt}(t)$. Then the notation $Q_2(t) \text{fSAprt}(t)$

$A(t)$ is dynamic continual fSAprt - embedding with actions $Q_1(t)$ of $A(t)$ in $B(t)$

and dynamic continual fSAprt-displacement with actions $Q_2(t)$ of $D(t)$ from $C(t)$ simultaneously.

We can consider the concept of dynamic continual fSAprt- element as

$\widetilde{A}(t)$ fSAprt(t) $Q(t)$, where $\widetilde{A}(t)$ fits in dynamic continual fuzzy capacity $\widetilde{B}(t)$. Then

$\widetilde{B}(t)$ fSAprt(t) $Q(t)$ it will mean $fS_1 A f Q(t) \widetilde{B}(t)$. $Q(t) \text{fSAprt}(t)$ denotes the dynamic

continual displacement with actions $Q(t)$ of fuzzy $A(t)$ from itsel_Qf with measure

of fuzziness μ , $Q(t) \text{fSAprt}(t) Q(t)$ —simultaneous dynamic continual containment of

onesel_Qf $A(t)$ in onesel_Qf $A(t)$ with actions $Q(t)$ and dynamic continual expelling

onesel_Qf $A(t)$ out of onesel_Qf $A(t)$ with actions $Q(t)$. $Q(t) \text{fSAprt}(t)$ will be called

dynamic continual anti fcapacity_Q from itsel_Qf with actions $Q(t)$.

Connection of dynamic continual fSAprt– elements with target weights with dynamic continual containment of onesel_Qf with target weights.

Consider a third type of dynamic partial containment of onesel_Qf with target

weights $\tilde{g}(t)$. For example, based on fSAprt(t) $\frac{x(t)\tilde{g}(t)}{Q(t)\tilde{w}(t)}$, where $x(t)=(x_1(t)|$

$\mu_{x(t)}(x)|, \dots, x_n(t)|\mu_{x(t)}(x_1(t)), x_2(t)|\mu_{x(t)}(x_2(t)|\dots, x_n(t)|\mu_{x(t)}(x_n(t)|))$, i.e. n fuzzy continual elements with target weights $\tilde{g}(t)$ at one point $\tilde{w}(t)$, we can consider the dynamic containment $fS_3Af x(t)\tilde{Q}(t)\tilde{g}(t)$ of onesel_Qf with target weights with m fuzzy continual elements with target weights $\tilde{g}(t)$ from $x(t)$, $m < n$, which is the fuzzy process of formation according to the form (2.1), i.e., only m fuzzy continual elements with target weights $\tilde{g}(t)$ from $x(t)$ are located in the structure

$fS_3Af x(t)\tilde{Q}(t)\tilde{g}(t)$. Dynamic containments with actions $Q(t)$ of onesel_Qf with target weights of the third type can be formed for any other structure, not necessarily fSAprt, only by reducing the number of fuzzy continual elements with target weights in the structure. In particular, using the form (2.1) – (2.4). Structures more complex than $fS_3Af x(t)\tilde{Q}(t)\tilde{g}(t)$ can be introduced.

Definition 4.4.8. The dynamic fuzzy embedding with actions $Q(t)$ of fuzzy continual $A(t)$ into itsel_Qf with target weights $\tilde{g}(t)$ of the first type is the process of fuzzy embedding $A(t)$ with actions $Q(t)$ into $A(t)$ with target weights $\tilde{g}(t)$. Denote $fS_1Af A(t)Q(t)\tilde{g}(t)$.

Definition 4.4.9. The dynamic containment with actions $Q(t)$ of fuzzy continual $C(t)$ itsel_Qf into itsel_Qf with target weights $\tilde{g}(t)$ of the second type is the process of containment with actions $Q(t)$ of the fuzzy continual elements from which it can be fuzzy generated. Let's denote $fS_2Af C(t)Q(t)\tilde{g}(t)$.

Definition 4.4.10. Partial `dynamic containment with actions $Q(t)$ of fuzzy continual $B(t)$ itsel_Qf into itsel_Qf with target weights $\tilde{g}(t)$ of the third type is the process of partial containment with actions $Q(t)$ of fuzzy continual $B(t)$ into

itsel_{Qf} or fuzzy continual elements from which it can be fuzzy generated partially, or both at the same time. Denote $fS_3AfB(t)Q(t)g(\tilde{t})$.

4.5 The usage of fSAprt-elements for networks

A. Galushkin's comprehensive monograph [20] covers all aspects of networks, but traditional approaches go through classical mathematics, mainly through the usual correspondence operators. Here we consider a different approach - through a new mathematical process with containment operators, which, although they can be interpreted as the result of some correspondence operators, are not themselves correspondence operators [1]. Containment operators are more convenient for networks. Also, the main emphasis was placed on using processors operating using triodes, which are generally not used in fSAprt -networks. fSAprt-networks(fSApnsptr) are a fSAprt -structure that can be built for the required weights. fSAprt -OS (fSAprt operating system) uses fSAprt -coding and fSAprt -translation. In the first one, coding is carried out through a 2-dimensional matrix-row (a, b), where the fuzzy number b is the code of the action, and the fuzzy number a is the code of the object of this action. fSAprt -coding (or sel_{Qf} - (fuzzy coding)) is implemented through a fuzzy matrix consisting of 2 columns (in the continuous case, two intervals of fuzzy numbers). Here, the source encoding is used for all matrix rows simultaneously. fSAprt -translation is carried out by inversion. In this case, sel_{Qf} - (fuzzy coding) and sel_{Qf} - (fuzzy translation) will be

more stable. The target weights $q_i(t)$ in $fSAprt(t) \begin{matrix} x(\tilde{t})q(\tilde{t}) \\ Q(t) \\ w(\tilde{t}) \end{matrix}$ are chosen for

necessary tasks. We will not touch on the issues of applications, or network optimization. They are described in detail by Galushkin [20]. We will touch on the difference of this only for hierarchical complex networks. The same simple executing programs are in the cores of simple artificial neurons of type fSAprt(designation - mnfSAprt) for simple information processing. More complex executing programs are used for mnfSAprt nodes. Threshold element

$$\text{fSAprt} - \frac{b}{Q_2} \frac{\{a\tilde{x}\}}{Q_1} \frac{\{qy\}}{b}, \quad b\text{- artificial neurons of type fSAprt (designation - mnfSAprt) , } \tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|) \text{ is the fuzzy set of values of the initial signals, } a=(a_1, a_2, \dots, a_n) \text{ are the weights of fSAprt -synapses and } \tilde{y}=(y_1|\mu_{\tilde{y}}(y_1), y_2|\mu_{\tilde{y}}(y_2)|, \dots, y_n|\mu_{\tilde{y}}(y_n)|) \text{ is the fuzzy set of values of the output signals with weights } q=(q_1, q_2, \dots, q_n)..$$
 The first level of mnfSAprt consists of simple mnfSAprt. The second level of mnfSAprt consists of $fSt_D^{\{mnSt\}}$ – fSAprt -node of mnfSAprt in range D, D- fuzzy capacity for mnfSAprt node. The third level of mnfSAprt

consists of fSAprt $\frac{\text{mnfSAprt}}{Q_D}$ - fSAprt²- node of mnfSAprt in range D, thus

D becomes fuzzy capacity of itsel_{Qf} in itsel_{Qf} as an element for mnfSAprt. For our networks, it is sufficient to use fSAprt²- nodes of mnfSAprt, but sel_{Qf} -level is higher in living organisms, particularly fSAprtⁿ-, $n \geq 3$. The target structure or the corresponding program enters the target unit using alternating current. After that, all networks or parts of them are activated according to the indicative goal. It may appear that we are leaving the network ideology, but these networks are a complex hierarchy of different levels, like living organisms.

Remark 4.5. Traditional scientific approaches through classical mathematics make it possible to describe only at the usual energy level. Here we consider an approach that makes describing processes with finer energies possible. mnfSAprt contains

$$\text{fSAprt} \frac{\{fAeprograms\}}{Q_{mnfSAprt}}, \quad faeprogram \text{ –executing program in fSAprt - OS. fSAprt -}$$

OS (or sel_{Qf} -OS) is based on fSAprt -assembly language (or sel_{Qf} -assembly language), which is based on assembly language through fSAprt -approach in turn, if the base of elements of fSAprt -networks is sufficient. The faeprograms are in fSAprt -programming environments (or sel_{Qf} - fuzzy programming environments), but this question and fSAprt -networks base will be considered in the following

monographs. In particular, faeprograms may contain fSAprt - programming operators. In mnfSAprt cores, the constant memory fSAprtwith correspondent faeprograms depending on mnfSAprt.

The OS (operating system) and the principles and modes of operation of the fSAprt -networks for this programming are interesting. But this is already the material for the next publications.

Here is developed a helicopter model without a main and tail rotors based on fSAprt– physics and special neural networks with artificial neurons operating in normal and fSAprt -modes. Let's denote this model through fSAmnsprt. To do this, it's proposed to use mnfSAprt of different levels; for example, for the usual mode, mnfSAprt serves for the initial processing of signals and the transfer of information to the second level, etc., to the nodal center, then checked. In case of an anomaly - local fSAprt –mode with the desired "target weight" is realized in this section, etc., to the center. In the case of a monster during the test, fSAmnsprt is activated with the desired "target weight." Here are realized other tasks also. To

reach the sel_Q -energy level, the mode fSAprt Q is used. In normal mode, fSAmnsprt

it's planned to carry out the movement of ffSmnsprt on jet propulsion by converting the energy of the emitted gases into a vortex to obtain additional thrust upwards. For this purpose, a spiral-shaped chute (with "pockets") is arranged at the bottom of the fSAmnsprt for the gases emitted by the jet engine, which first exit through a straight chute connected to the spiral one. There is drainage of exhaust gases outside the fSAmnsprt. fSAmnsprt is represented by a neural network that extends from the center of one of the main clusters of fSAprt- artificial neurons to the shell, turning into the body itself. Above the operator's cabin is the central core of the neural network and the target block, responsible for performing the "target weights" and auxiliary blocks, the functions and roles of which we will discuss further. Next is the space for the movement of the local vortex. The unit responsible for fSAmnsprt 's actions is below the operator's cab. In fSAprt– mode,

the entire network or its sections are fSAprt– activated to perform specific tasks, in particular, with "target weights." In the target, block used fSAprt -coding, fSAprt -translation for activation of all networks to "target weights" simultaneously, then –the reset of this fSAprt -coding after activation. Unfortunately, triodes are not suitable for fSAprt -neural networks. In the most primitive case, usual separators with corresponding resistances and cores for faepgrams may be used instead triodes since there is no necessity to unbend the alternating current to direct. The fSAprt-operative memory belt is disposed around a central core of fSAmnsprt. There are fSAprt -coding, fSAprt -translation, and fSAprt-realize of faepgrams and the programs from the archives without extraction, fSAprt-coding and fSAprt-translation may be used in high-intensity, ultra-short optical pulses laser of Nobel laureates 2018-year Gerard Mourou, Donna, Strickland. fSAprt– structure or an faepgram if one is present of needed «target weight» are taken in target block at fSAprt– activation of the networks. $fSAmnsprt, g$ Q derives fSAmnsprt to the *activation* sel_Qf -level boundary with target weight g.

It's used an alternating current of above high frequency and ultra-violet light, which can work with fSAprt– structures in fSAprt –modes by its nature to activate the networks or some of its parts in fSAprt –modes and locally using fSAprt –mode. Above high frequently alternating current go through mercury bearers. That's why overheating does not occur. The power of the alternating current above high frequently increases considerably for the target block. The activation of all networks is realized to indicate "target weights."

Appendix

We consider fSAprt-logic [1]: consider the functional $g(Q)$, which gives a fuzzy numerical value for the truth of the fuzzy statement Q from the interval $[0,1]$, where 0 corresponds to "no," and one corresponds to the logical value "yes." Then for joint fuzzy statements A, B : $g(A+B)=g(A)+g(B)-g(A*B)+gS(D)$, D - sel_Qf - (fuzzy statement) from $A*B$, $gS(x)$ - the value of sel_Qf -truth for sel_Qf - (fuzzy

statement) x ; for dependent fuzzy statements: $g(A*B)=g(A)*g(B/A)=g(B)*g(A/B)$, where $g(B/A)$ - conditional truth of the fuzzy statement B at fuzzy statement A , $g(A/B)$ - dependent truth of fuzzy statement A at the fuzzy statement B . Adding the truth values of inconsistent fuzzy propositions: $g(A+B)=g(A)+g(B)$. The formula of complete truth: $g(A)=\sum_{k=1}^n g(B_k) * g(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of hypotheses- (fuzzy statements): $\sum_{k=1}^n f(B_k)=1$ ("yes"). Remark. A fuzzy statement can be interpreted as an fuzzy event, and its truth value as a probability.

fSAprt- statement for fuzzy set of statements $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|)$:

$$fSAprt \begin{matrix} (x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2)|, \dots, x_n|\mu_{\tilde{x}}(x_n)|) \\ Q \\ w \end{matrix}, fSAprt \begin{matrix} \{g(x_1), g(x_2), \dots, g(x_n)\} \\ Q \\ w \end{matrix} -$$

fSAprt- truth for these statements. It is possible to consider the sel_{Qf} -statement

$fS_3AfQ\tilde{x}$ with m statements from $\tilde{x}$, at $m < n$, which is formed by the form (2.1),

that is, only m statements from $\tilde{x}$ are located in the structure $fSAprt \begin{matrix} \tilde{x} \\ Q \\ w \end{matrix}$. The same

for sel_{Qf} - truth $fS_3AfQ\{g(x_1), g(x_2), \dots, g(x_n)\}$.

One can introduce the concepts of $fSAprt$ -group: $ffSrt \begin{matrix} \tilde{x} \\ Q \\ q \end{matrix}$, $\tilde{x}$ is usual fuzzy group,

$ffSrt \begin{matrix} \tilde{x} \\ Q \\ B \end{matrix}$, where $\tilde{x}$, B - usual fuzzy groups, sel_{Qf} -groups: fS_iAfQ , $i=1,2,3$ [2].

Definition 4.5. A structure with a second degree of freedom will be called complete, i.e., "capable" of reversing its sel_{Qf} concerning any of its elements clearly, but not necessarily in known operators; it can form (create) new

special operators (in particular, special functions). In particular, $fCArt \begin{matrix} A \\ Q \\ A \end{matrix}$ is

such structure. Similarly, for working with models, each is structured by its structure; for example, use fSAprt-groups, fSAprt-rings, fSAprt-fields, fSAprt-spaces, sel_{Qf} -(fuzzy groups), sel_{Qf} -(fuzzy rings), sel_{Qf} -(fuzzy fields), and sel_{Qf} -(fuzzy spaces). Like any task, this is also a structure of the appropriate fuzzy

capacity. Since the degree of freedom is double, it is clear that the form of the sel_{Qf} -equation contains a solution or structures the inversion of the sel_{Qf} - (fuzzy equation) concerning unknowns, i.e., the structure of the sel_{Qf} -equation is complete.

4.6 Variable fuzzy hierarchical dynamic fuzzy structures (models, operators) for dynamic, singular, hierarchical fuzzy sets

In contrast to the classical one-attribute fuzzy set theory [2], [3], where only its contents are taken as a set, we consider a two-attribute fuzzy set theory with a fuzzy set as a fuzzy capacity and separately with its contents. We simply use a convenient form to represent the singularity of a fuzzy set.

Articles [4] - [16] use the following methodology for permanent structures:

1. Cancellation of the axiom of regularity.
2. 2 attributes for the fuzzy set: fuzzy capacity and its content.
3. Fuzzy compression of a fuzzy set, for example, to a point.
4. “turning out” from one another, particularly from a fuzzy capacity, we pull out another fuzzy capacity, for example, itsel_{Qf} , as its element.
5. The simultaneity of one (fuzzy compression) and the other (“eversion”).
6. Own fuzzy capacities.
7. Qualitatively new fuzzy programming and fuzzy Networks.

Here we will consider variable fuzzy structures (models) [1], both discrete and continuous: a) with variable connections, b) with the variable backbone for links, c) generalized version; in particular, in variable fuzzy structures (models), for example,

$$Q_{14}^{C} fSAprt(t) Q_{13}^{A} = \left\{ \begin{array}{l} \begin{array}{cc} C & A \\ Q_6 fSAprt, q_2 \geq t \geq q_1 \end{array} | Q_1 \\ \begin{array}{cc} D & B \\ \mu_8 fS^1 prt \mu_7 \end{array}, q_3 \geq t > q_2 \end{array} | Q_2 \\ \begin{array}{cc} D & B \\ C & A \\ \mu_{10} fSAprt \mu_9 \end{array}, q_4 \geq t > q_3 \end{array} | Q_3 \quad (*_{4.1}), \\ \begin{array}{cc} A & B \\ fSAprt Q_{11} \end{array}, q_5 \geq t > q_4 \end{array} | Q_4 \\ \begin{array}{cc} \{ \} & B \\ Q_{12} fSAprt \end{array}, t > q_5 \end{array} | Q_5 \\ \dots \end{array}$$

Q_i - actions, $i = 1, \dots, 14$. In particular, $Q_{10}^{B} fSAprt Q_9^{A}$ can be interpreted as a fuzzy

game: player 1 fuzzy with action Q_9 fits fuzzy A into fuzzy B, and the other with action μ_{10} pushes fuzzy D out of fuzzy B at the same time.

In what follows, we will denote variable fuzzy structure (model) through fVSA(t), sel_Qf -variable fuzzy structures (models) through SfVSA(t), and osel_Qf -variable fuzzy structures (models) through OSfVSA(t). Singular fuzzy structures (models)

are not confused with fuzzy structures (models) with singularities. $Q_{10}^{B} fSAprt Q_9^{A}$ -

2-hierarchical fuzzy structure: 1-level - elements A, B, C, D; level 2 - connections between them. 2-

Examples: a) discrete variable fuzzy structure with μ_i - measures of fuzziness, $i = 1, \dots, 8$.

$$\begin{array}{ccc} a|Q_1 & b|Q_8 & g|Q_7 \\ c|Q_2 & fVSA(t) & w|Q_6 \\ d|Q_3 & q|Q_4 & r|Q_5 \end{array}$$

Fig.II.2

c) continuous variable fuzzy structure

$$\boxed{\boxed{ffVSA(t)}}$$

Fig.II.3

Where a continuous fuzzy set represents the rim of the Fig.II.3.

We introduce the notation m_{fVSA_N} – the number of elements, N – the number of connections between them in the discrete variable 2-hierarchical fuzzy structure $fVSA(t)$. We introduce the notation q_{fVSA_R} – any, R – connections in q_{fVSA_R} in the variable 2-hierarchical fuzzy structure $fVSA(t)$, in particular, q_{fVSA_R} , R can be fuzzy sets both discrete and continuous and discrete-continuous. We consider the functional $c(Q)$, which gives a numerical value for the fuzzy structurability of Q from the interval $[0,1]$, where 0 corresponds to "no fuzzy structure", and 1 corresponds to the value "fuzzy structure". Then for joint A, B :

$c(A+B)=c(A)+c(B)-c(A*B)+cS(D)$, D – $sel_Q f$ – (fuzzy structure) from $A*B$, $cS(x)$ – the value of $sel_Q f$ – (fuzzy structure) for $sel_Q f$ – (fuzzy structure) x ; for dependent fuzzy structures: $c(A*B)=c(A)*c(B/A)=c(B)*c(A/B)$, where $c(B/A)$ – conditional fuzzy structurability of the fuzzy structure B at the fuzzy structure A , $c(A/B)$ – conditional fuzzy structure of the fuzzy structure A at the fuzzy structure B .

Adding inconsistent fuzzy structures: $c(A+B)=c(A)+c(B)$. The formula of complete fuzzy structure: $c(A)=\sum_{k=1}^n c(B_k)*c(A/B_k)$, $B_1, B_2, \dots, B_n$ – full group of fuzzy hypotheses – containments: $\sum_{k=1}^n c(B_k)=1$ ("fuzzy structure"). Fuzzy Sprrt-structure for fuzzy set of fuzzy structures $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))$:

$$fSAprt \quad \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))}{Q \atop w} \cdot \frac{\{c(x_1)|\mu_{c(\tilde{x})}c(x_1)|\mu_{c(\tilde{x})}c(x_2), \dots, c(x_n)|\mu_{c(\tilde{x})}c(x_n)\}}{Q \atop w} - \text{fuzzy SAprt- structurability}$$

for these fuzzy structures. It is possible to consider the $sel_Q f$ – (fuzzy structure) $fS_3AfQ\tilde{x}$ with m structures and from $\tilde{x}$, at $m < n$, which is formed by the form (2.1), that is, only m statements from $\tilde{x}$ are located in the structure

$$fSAprt \quad \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))}{Q \atop w} \quad \text{or for more complex operators in forms}$$

$$fS_3A\{c(x_1)|\mu_{c(\tilde{x})}c(x_1),c(x_2)|\mu_{c(\tilde{x})}c(x_2),\dots,c(x_n)|\mu_{c(\tilde{x})}c(x_n)\}.$$
$$\begin{array}{c} C \\ Q_{14}^{\text{fSAprt}(t)} \end{array} \begin{array}{c} A \\ Q_{13} \end{array} : \left\langle \begin{array}{c|c} A \rightarrow B & D \leftarrow C \\ A,B & C,D \end{array} \right\rangle \rightarrow \left(\begin{array}{c} fself(A \rightarrow B)Q_{13} \\ A,B \end{array} \right)$$

The example

$$fQHSA = fHSA_{prt} \left[\begin{array}{c} \text{N – level of hierarchical structure} \\ (fSA_{prt} \quad Q \quad)_{Q_N} \\ x \\ \dots \\ \text{i – level of hierarchical structure} \\ (fSA_{prt} \quad Q \quad)_{Q_i} \\ x \\ \dots \\ \text{1 – level of hierarchical structure} \\ (fSA_{prt} \quad Q \quad)_{Q_1} \\ x \\ Q \\ x \end{array} \right] - \text{fuzzy N-}$$

hierarchical fuzzy structure compression into point x , Q_i - actions, $i = 1, \dots, N$.

$$\text{Let } ag(N, f_{QHSA}) = \left. \begin{matrix} f_{QHSA} \\ f_{QHSA} \\ \dots \\ f_{QHSA} \end{matrix} \right\} \text{-N levels}$$

Compression fuzzy Hierarchy Examples:

$$\begin{aligned}
1) \text{ fSAprt } & \begin{pmatrix} () \\ \text{fSAprtQ} \\ () \\ Q \\ () \\ \text{fSAprtQ} + B \\ () \end{pmatrix} = \begin{pmatrix} () \\ \text{fSAprtQ} \\ () \\ \text{fSAprt } Q \\ () \\ \text{fSAprtQ} \\ () \\ \text{fSAprtQ} \\ \text{fSAprt } Q \\ B \end{pmatrix} \\
2) & \begin{pmatrix} () & () \\ C + Q_2 \text{fS}_1 \text{Aprt} Q_1 & A + Q_2 \text{fS}_1 \text{Aprt} Q_1 \\ () & () \\ \mu_2 & \text{ffS}_1 \text{prt} & \mu_1 \\ () & () & () \\ D + Q_2 \text{fS}_1 \text{Aprt} Q_1 & B + Q_2 \text{fS}_1 \text{Aprt} Q_1 \\ () & () & () \end{pmatrix} = \\
& \begin{pmatrix} () & () & () & () \\ Q_2 \text{fS}_1 \text{Aprt} Q_1 & Q_2 \text{fS}_1 \text{Aprt} Q_1 & & \\ () & () & () & () \\ \mu_2 & \text{fS}_1 \text{Aprt} & \mu_1 & \\ () & () & () & () \\ Q_2 \text{fS}_1 \text{Aprt} Q_1 & Q_2 \text{fS}_1 \text{Aprt} Q_1 & & \\ () & () & () & () \\ C & A & & \\ Q_2 \text{fS}_1 \text{Aprt} Q_1 & & & \\ D & B & & \end{pmatrix},
\end{aligned}$$

Where Q_i - actions, $i = 1, 2$.

Let's consider two versions: 1) containment is interpreted through the concept of containment, and 2) fuzzy capacity is interpreted through the concept of containment as a rest point of containment. sel_{Qf} -(containment) is interpreted as a rest point of sel_{Qf} -(containment). Let A sel_{Qf} -(fuzzy compress) into B , D sel_{Qf} -(fuzzy displace) from C in $\begin{matrix} C & A \\ Q_2 \text{fVS}_1 \text{Aprt} Q_1. \\ D & B \end{matrix}$.

We consider the functional $\text{ca}(Q)$ [1], which gives a numerical value for the accommodation of fuzzy Q from the interval $[0,1]$, where 0 corresponds to "containment" and one corresponds to the value "fuzzy capacity". Then for joint

fuzzy A, B: $ca(A+B)=ca(A)+ca(B)-ca(A*B)+caS(D)$, D- sel_{Qf} -(containment) for $A*B$, $caS(x)$ - the value of sel_{Qf} -(fuzzy capacity) for sel_{Qf} -(containment) of x; for dependent containments: $ca(A*B)=ca(A)*ca(B/A)=ca(B)*ca(A/B)$, where $ca(B/A)$ - conditional accommodation of the containment B at the containment A, $ca(A/B)$ - conditional fuzzy capacity of the containment A at the containment B.

Adding the fuzzy capacity values of inconsistent containments:

$ca(A+B)=ca(A)+ca(B)$. The formula of complete fuzzy capacity: $ca(A)=$

$\sum_{k=1}^n ca(B_k) * ca(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of fuzzy hypotheses-

containments: $\sum_{k=1}^n ca(B_k)=1$ ("fuzzy capacity"). $Sprt$ -(containment) for

$$\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n)): fSAprt \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))}{Q},$$

$\tilde{x}$ - fuzzy set of containments. $fSAprt$

$$\{ ca(x_1)|\mu_{ca(\tilde{x})}ca(x_1)|\mu_{ca(\tilde{x})}ca(x_2), \dots, ca(x_n)|\mu_{ca(\tilde{x})}ca(x_n) \} \frac{Q}{w} - fSAprt- accommodation$$

for these containments x_i , $i = 1, \dots, n$. It is possible to consider the sel_{Qf} -

(containment) $fS_3AfQ\tilde{x}$ with m containments from $\tilde{x}$, at $m < n$, which is formed by the form (1), that is, only m containments from $\tilde{x}$ are located in the containment

$$fSAprt \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))}{Q}. \text{ The same for } sel_{Qf} \text{ -(fuzzy}$$

accommodation)

$$fS_3Af\{ ca(x_1)|\mu_{ca(\tilde{x})}ca(x_1), ca(x_2)|\mu_{ca(\tilde{x})}ca(x_2), \dots, ca(x_n)|\mu_{ca(\tilde{x})}ca(x_n) \}.$$

Consider a variable fuzzy hierarchy (we will denote it by fVHA) [1].

The example of variable fuzzy hierarchy

$${}_D^C fSt(t)_B^A = \left\{ \begin{array}{l} \left(\left\{ \begin{array}{l} H + {}_{D-D \cap C}^{\{\}} fSt \\ (C - D \cap C) \end{array} \right\}, q_2 \geq t \geq q_1 \right) | Q_1 \\ \left(\begin{array}{l} fS_0^{1^e} fB * \\ {}_{Q-B}^B fS_1^1 t_B^{A-B} \end{array} \right), q_3 \geq t > q_2 | Q_2 \\ fS_{01}^{et} fB \\ \left(\begin{array}{l} {}_{C-B}^{C-B} fS_1 t_B^{A-B} \\ {}_{D-C-B}^{C-B} fS_1 t_B^{A-B} \end{array} \right), q_4 \geq t > q_3 | Q_3 \\ \left(\begin{array}{l} R \\ (A \cup B - A \cap B) \end{array} \right), q_5 \geq t > q_4 | Q_4 \\ \left({}_D^{\{\}} fSt, t > q_5 \right) | Q_5 \\ \dots \end{array} \right. \quad (*_{D.2}),$$

where H is $osel_{Qf}$ -(fuzzy set) for fuzzy $(D \cap C)$ [10], [15], R is sel_{Qf} -(fuzzy set) for fuzzy $A \cap B$ [10] - [16], $fS_{01}^{et} fB$, ${}_{C-B}^{C-B} S_1 t_B^{A-B}$, ${}_{D-C-B}^{C-B} fS_1 t_B^{A-B}$ are considered in [6], [11], Q_i - actions, $i = 1, \dots, 5$. **Variable compression (designation fVSA) of fuzzy $\tilde{A}$ into $\tilde{x}(t)$:** $fSt_{\tilde{x}(t)}^{\tilde{A}}$, where $\tilde{x}(t)$ - any dynamical fuzzy object at time t .

We consider the functional $h(Q)$, which gives a numerical value for the hierarchization of fuzzy Q from the interval $[0,1]$, where 0 corresponds to "no fuzzy hierarchy," and 1 corresponds to the value "fuzzy hierarchy." Then for joint fuzzy hierarchies A, B : $h(A+B)=h(A)+h(B)-h(A*B)+hS(D)$, D - sel_{Qf} -(fuzzy hierarchy) from $A*B$, $hS(x)$ - the value of sel_{Qf} -(fuzzy hierarchy) for sel_{Qf} -(fuzzy hierarchy) x ; for dependent fuzzy hierarchies:

$h(A*B)=h(A)*h(B/A)=h(B)*h(A/B)$, where $h(B/A)$ - conditional hierarchization of the fuzzy hierarchy B at the fuzzy hierarchy A , $h(A/B)$ - conditional fuzzy hierarchy of the fuzzy hierarchy A at the fuzzy hierarchy B . Adding the fuzzy hierarchy values of inconsistent fuzzy hierarchies: $h(A+B)=h(A)+h(B)$. The formula of complete fuzzy hierarchy: $h(A)=\sum_{k=1}^n h(B_k) * h(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of fuzzy hypotheses- hierarches: $\sum_{k=1}^n h(B_k)=1$ ("fuzzy hierarchy").

fSAprt- structure for fuzzy set of hierarches $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), ..., x_n|\mu_{\tilde{x}}(x_n))$:

$$\text{fSAprt} \quad \frac{(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), ..., x_n|\mu_{\tilde{x}}(x_n))}{Q \atop B} .$$

$$\text{fSAprt} \quad \frac{\{ h(x_1)|\mu_{h(\tilde{x})}h(x_1)|\mu_{h(\tilde{x})}h(x_2), ..., h(x_n)|\mu_{h(\tilde{x})}h(x_n) \}}{Q \atop B} \quad - \text{ fSAprt- hierarchization}$$

for these fuzzy hierarches. It is possible to consider the sel_Qf -(fuzzy hierarchy)

fS_3AQB with m fuzzy hierarches from B, at $m < n$, which is formed by the form

(1), that is, only m fuzzy hierarches from B are located in the fuzzy hierarchy

$$\text{fSAprt} \quad \frac{A}{Q \atop B} . \text{ The same for sel}_{Qf}\text{- hierarchization}$$

$fS_3AQ\{ h(x_1)|\mu_{h(\tilde{x})}h(x_1), h(x_2)|\mu_{h(\tilde{x})}h(x_2), ..., h(x_n)|\mu_{h(\tilde{x})}h(x_n) \}$. Can be

$$\text{considered fSAprt} \quad \frac{\{ ca(x), c(x), h(x) \}}{Q \atop B} . \text{ Very interesting next fuzzy hierarchy type:}$$

$$\begin{array}{ccc} \text{fuzzy hierarchy } A & & \text{fuzzy hierarchy } A \\ Q & \text{fSAprt} & Q \\ \text{fuzzy hierarchy } A & & \text{fuzzy hierarchy } A \end{array} . \text{ You can enter special operator}$$

fCAprt to work with fuzzy structures:

$$\frac{A}{Q_2} \text{fCAprt} \frac{H}{Q_1} \quad \text{fuzzy structures R with the fuzzy structure from H with actions} \\ D \quad R$$

Q_1 and unstructures fuzzy A by the fuzzy structure D with actions Q_2

simultaneously.

Very interesting next fuzzy structure type:

$$\frac{A}{Q_2} \text{fCAprt} \frac{A}{Q_1} , \\ A \quad A$$

You can enter special operator $fHAprt$ to work with fuzzy hierarches: $Q_2 fHAprt$

P
 Q_1 fuzzy hierarchizes R with the fuzzy hierarchy from P with actions Q_1 and
 R
 unhierarchizes fuzzy A by the fuzzy hierarchy D with actions Q_2 simultaneously.

4.7 FUZZY PROGRAM OPERATORS $fSAprt$, $ftprSA$, fS^1Aepr , $fSAeprt_1$

Here it is supposed to use a symbiosis of parallel actions and conventional calculations through sequential actions [1]. This must be done through $fSAprt$ -Networks - fuzzy analogue of Sit-Networks [15] in one of the central departments of which a conventional computer system is located. The parallel processor is itself a program - fuzzy analogue of eprogram [15] with direct parallel computing not through serial computing.

Using conventional coding by a computer system, through a Target-block with a

fuzzy $fSAprt$ -program operator - $fSAprt$ $\begin{matrix} Ag \\ Q \end{matrix}$ with actions Q , it will be
activation

possible to obtain the fuzzy execution with actions Q of a parallel fuzzy action A with the desired target weight g or the execution of a parallel action A with the desired fuzzy target weight g or both. Each code for a neural network from a conventional computer we "bind" (match) to the corresponding value of current (or voltage). For $fSAprt$ -coding and $fSAprt$ -translation may be use alternating current of ultrahigh frequency or high-intensity ultra-short optical pulses laser of Nobel laureates 2018 year Gerard Mourou, Donna Strickland, or a combination of them. For the desired action, for example, using the direct parallel faprogram of operator

$\{UHF AC := H\}$
 $fSAprt$ Q with measure of fuzziness μ , we simultaneously enter the
activation

desired set of codes H using a microwave current or high-intensity ultra-short optical pulses laser in Target-block.

In a conventional computer, the process of sequential calculation takes a certain time interval, in a directly parallel calculation by a neural network, the calculation is instantaneous, but it occupies a certain region of the space of calculation objects. Consider the types of direct parallel fuzzy aprogram operators:

- 1) fSAprt-program operators
- 2) ftprSA-program operators
- 3) fS¹Aepr - program operators
- 4) fSAept₁- program operators

One example is pattern recognition: fSAprt

$$\text{if fSAprt} \begin{array}{c} \text{image archive} \\ Q \\ B \end{array} \quad \begin{array}{c} q \\ \exists \text{ fSAprt}Q \\ B \end{array} \text{ then Name of } q .$$

The example of fSAprt-program is fSAprt

$$\{ \text{fSAprt} \begin{array}{c} \{ \{p\} := \{a(x)\} \} \\ Q \\ x \end{array} , \text{fSAprt} \begin{array}{c} \text{IF} \{ \{B\} \{f\} \} \text{ then } Q \\ Q \\ x \end{array} , \text{fSAprt} \begin{array}{c} Q \\ Q \end{array} \}$$

Consider a third type of fuzzy capacity in itsel_Qf - fuzzy analogue of capacity in

itsel_Qf. For example, based on fSAprt_Q, where $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$,

i.e. n - elements at one point, we can consider the capacity $fS_3Af\tilde{x}Q$ (in itsel_Qf with m elements from $\tilde{x}$, m < n, which is formed according to the form (2.1),

that is, the structure fSAprt_Q contains with actions Q only m elements or for more

complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

Here are some of the fuzzy fSAprt-program operators.

1. Simultaneous actions Q of the expressions $\tilde{p}=(p_1|\mu_{\tilde{p}}(p_1), p_2|\mu_{\tilde{p}}(p_2), \dots, p_n|\mu_{\tilde{p}}(p_n))$ to the variables $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), \dots, x_n|\mu_{\tilde{x}}(x_n))$. This is

implemented via $\text{fSAprt}_{\tilde{Q}}^{\tilde{p}}_w$.

2. Simultaneous checking with actions Q by the fuzzy set of conditions $\tilde{g}=(g_1|\mu_{\tilde{g}}(g_1), g_2|\mu_{\tilde{g}}(g_2), \dots, g_n|\mu_{\tilde{g}}(g_n))$ for the fuzzy set of expressions $\tilde{B}=(B_1|\mu_{\tilde{B}}(B_1),$

$B_2|\mu_{\tilde{B}}(B_2), \dots, B_n|\mu_{\tilde{B}}(B_n))$ Implemented via $\text{fSAprt}_{\tilde{Q}}^{\text{IF}\{\{\tilde{B}\}\{\tilde{g}\}\}\text{ then } \tilde{Q}}_w$ where

$\tilde{Q}$ can be anything.

3. Similarly for fuzzy loop operators and others.

fS_3Af – fuzzy software operators will differ only just because aggregates $\tilde{x}, \tilde{p}, \tilde{B}, \tilde{g}$ will be formed from corresponding fSAprt-program operators in form (2.1), for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

For example, $\text{fSAprt}_{g\{R\}}^{\{R\}}_Q$ is the fuzzy capacity with actions Q in itsel_Qf of the

second type if $g\{R\}$ is a faprogram capable of fuzzy generating $\{R\}$ with actions Q.

The example of sel_Qf -faprogram of the first type is

$\text{fSAprt}_{\{p\} := \{a(x)\}}^{\{p\} := \{a(x)\}}_Q, \text{fSAprt}_{\text{IF}\{\{B\}\{f\}\}\text{ then } Q}^{\text{IF}\{\{B\}\{f\}\}\text{ then } Q}_Q, \text{fSAprt}_Q^Q$.

The example of fSAprt-program for fSAmnsprt:

$q := \text{fSAprt}_B^Q$ - fuzzy assigning fuzzy q to fuzzy B with actions Q.

$tw := \text{fSAprt}_g^Q$ - fuzzy assigning target weight tw to fuzzy g with actions Q.

$fSAprt_{\{q\}w}^Q$ - $fSAmnsprt$ activation for fuzzy $\{q\}w$ with actions
 $fSAmnsprt$ activation
 Q .

$fSAprt$ -coding.

$fSAprt$ -coding with measure of fuzziness Q : 1) fuzzy set A to fuzzy set B , 2)

fuzzy set A to a point q , where the elements of the fuzzy sets A , B can be

continuous. For example, $fSAprt_{\frac{A}{B}}^Q$.

There are $fSAprt$ -coding, $fSAprt$ -translation, $fSAprt$ -realize of faepgrams and of the fapgrams from the archives without extraction theirs

sel_Qf -coding.

sel_Qf -coding with actions Q : 1) fuzzy set A to set fuzzy A , i.e. fuzzy A on it sel_Qf

2) fuzzy set A to a point q in form (2.1), where the elements of the fuzzy sets A , B

can be continuous. For example, $fSAprt_{\frac{A}{A}}^Q$.

One of the central departments of the control system should be a computer system of the usual type of the desired level. In symbiosis with $fSAprt$ -Networks, it will provide a holistic operation of the control system in three modes: conventional serial through a conventional type computer system, direct parallel through $fSAprt$ -Networks and series-parallel. Codes from a conventional type computer system will be used via $fSAprt$ -connectors in $fSAprt$ - coding, for example: $fSAprt$

$\{UHF AC := Q\}$
 Q . UHF AC field activation is used.
 activation

Dynamic $fSAprt$ and fS_3AfQ programming [1].

The ideology of dynamic $fSAprt$ and fS_3AfQ can be used for programming:

4. Simultaneous actions Q of the expressions $\tilde{p}(t)=(p_1(t)|\mu_{\tilde{p}(t)}(p_1(t)), p_2(t)|$

$\mu_{\tilde{p}(t)}(p_2(t)), ..., p_n(t)|\mu_{\tilde{p}(t)}(p_n(t)))$. This is implemented via $\text{fSAprt}(t) \begin{matrix} \tilde{p}(t) \\ Q \\ w(t) \end{matrix}$.

5. Simultaneous checking with actions Q the fuzzy set of conditions

$\tilde{g}(t)=(g_1(t)|\mu_{\tilde{g}(t)}(g_1(t)), g_2(t)|\mu_{\tilde{g}(t)}(g_2(t)), ..., g_n(t)|\mu_{\tilde{g}(t)}(g_n(t)))$ for the fuzzy set of expressions $\tilde{B}(t)=(B_1(t)|\mu_{\tilde{B}(t)}(B_1(t)), B_2(t)|\mu_{\tilde{B}(t)}(B_2(t)), ..., B_n(t)|\mu_{\tilde{B}(t)}(B_n(t)))$.

Implemented via $\text{fSAprt}(t) \begin{matrix} IF \{ \{ \tilde{B}(t) \} \{ \tilde{g}(t) \} \} \\ Q \\ w(t) \end{matrix} then \tilde{Q}(t)$ where $\tilde{Q}(t)$ can be

anything.

6. Similarly for fuzzy loop operators and others.

fS₃AfQ – fuzzy software operators will differ only just because aggregates

$\tilde{x}(t), \tilde{p}(t), \tilde{B}(t), \tilde{g}(t)$ will be formed from corresponding fSAprt-program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*).

ftprSA-program operators.

The ideology of ftprSA and ft_{S_4Af} - fuzzy analogues of tS and t_{S_4f} from [10] can be used for programming. Here are some of the ftprSA -program operators.

1. Simultaneous expelling assignment of the expressions $\tilde{p}=(p_1|\mu_{\tilde{p}}(p_1), p_2|$

$\mu_{\tilde{p}}(p_2), ..., p_n|\mu_{\tilde{p}}(p_n))$ from the variables $\tilde{x}=(x_1|\mu_{\tilde{x}}(x_1), x_2|\mu_{\tilde{x}}(x_2), ..., x_n|\mu_{\tilde{x}}(x_n))$

with actions Q. This is implemented via $\begin{matrix} \tilde{x} \\ Q \\ =:\tilde{p} \end{matrix} \text{fSAprt.}$

2. Simultaneous expelling check with actions Q the fuzzy set of conditions

$\tilde{g}=(g_1|\mu_{\tilde{g}}(g_1), g_2|\mu_{\tilde{g}}(g_2), ..., g_n|\mu_{\tilde{g}}(g_n))$ for the fuzzy set of expressions $\tilde{B}=(B_1|$

$\mu_{\tilde{B}}(B_1), B_2 | \mu_{\tilde{B}}(B_2), \dots, B_n | \mu_{\tilde{B}}(B_n))$. It's implemented through

$\overset{w}{Q}$
 $IF \{ \{ \tilde{B} \} \{ \tilde{g} \} \} \text{ then } \tilde{Q} \text{ fSAprt where } Q \text{ can be any.}$

3. Similarly for loop operators and others.

ft_{S_4Af} – fuzzy software operators will differ only just because aggregates $\tilde{x}, \tilde{p}, \tilde{B}, \tilde{g}$ will be formed from corresponding ftprSA program operators in form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*). Consider hierarchical ftprSA-program operator

$\overset{B}{Q} \text{fSAprt} = \left\{ \begin{array}{c} D + \begin{array}{c} \{ \} \\ Q \end{array} \text{ fSAprt} \\ A - A \cap B \\ (B - A \cap B) \end{array} \right\}$, where D is osel_Qf-(fuzzy set) for fuzzy ($A \cap B$).

Dynamic ftprSA and $ft(q)_{S_4Af}$ programming at time q.

The ideology of ftprSA and ft_{S_4Af} can be used for dynamic programming. Here are some of the ftprSA()- dynamic programming operators.

1. The process of simultaneous expelling assignment of the expressions $\tilde{p}(t) = (p_1(t) | \mu_{\tilde{p}(t)}(p_1(t)), p_2(t) | \mu_{\tilde{p}(t)}(p_2(t)), \dots, p_n(t) | \mu_{\tilde{p}(t)}(p_n(t)))$ from the variables $\tilde{x}(t) = (x_1(t) | \mu_{\tilde{x}(t)}(x_1(t)), x_2(t) | \mu_{\tilde{x}(t)}(x_2(t)), \dots, x_n(t) | \mu_{\tilde{x}(t)}(x_n(t)))$ with actions Q is implemented

$\tilde{x}(t)$
 through $\overset{Q}{\text{fSAprt}}(t)$.
 $= : \tilde{p}(t)$

2. The process of simultaneous expelling check with actions Q the fuzzy set of conditions $\tilde{g}(t) = (g_1(t) | \mu_{\tilde{g}(t)}(g_1(t)), g_2(t) | \mu_{\tilde{g}(t)}(g_2(t)), \dots, g_n(t) | \mu_{\tilde{g}(t)}(g_n(t)))$ for the fuzzy set of expressions $\tilde{B}(t) = (B_1(t) | \mu_{\tilde{B}(t)}(B_1(t)), B_2(t) | \mu_{\tilde{B}(t)}(B_2(t)), \dots, B_n(t) | \mu_{\tilde{B}(t)}(B_n(t)))$ is

$\overset{w(t)}{Q}$
 implemented through $\text{fSAprt}(t)$, where Q(t) can be any.
 $IF \{ \{ \tilde{B}(t) \} \{ \tilde{g}(t) \} \} \text{ then } \tilde{Q}(t)$

3. Similarly for loop operators and others.

ft_{S_4Af} – fuzzy software operators will differ only just because aggregates $x(t), p(t), B(t), g(t)$ will be formed from corresponding processes $ftprSA(t)$ for above mentioned programming operators through form (2.1) for more complex operators in forms (2.1.1) - (2.4), (2.1*) and analogs of forms (2.1.1) - (2.4) by type (2.1*). Consider hierarchical dynamic $ftprSA$ -program operator:

$$\begin{matrix} B(q) \\ Q \\ A(q) \end{matrix} fSAprt(q) = \left\{ \begin{matrix} ft(q)_{S_1Af(A(q) \cap B(q))} + \frac{\{ \}}{Q} fSAprt(q) \\ A(q) - A(q) \cap B(q) \\ (B(q) - A(q) \cap B(q)) \end{matrix} \right\},$$

fS^1Aepr -program operators (form $\begin{matrix} B & A \\ Q_2 & fS^1prtQ_1 \\ D & B \end{matrix}$ - fuzzy analogue of $\begin{matrix} B \\ D \end{matrix} S^1 t_B^A$ [6]))

For example, $\begin{matrix} \{a(t)\} \\ Q_2 \\ \{=: \{p(t)\}\} \end{matrix} fS^1Aeprt \begin{matrix} IF \{ \{B(t)\} \{f(t)\} \} \text{ then } Q(t) \\ Q_1 \\ \{a(t)\} \end{matrix} .$

Consider hierarchical dynamic fS^1Aepr -program operator: (form

$$\begin{matrix} B & A \\ Q_2 fS^1AprtQ_1 * \\ A & B \\ B & A \\ Q_2 fS^1AprtQ_1 \\ D - A & B \end{matrix}).$$

$fSAeprt_1$ - program operators (form $\begin{matrix} C & A \\ Q_2 & fS_1prtQ_1 \\ D & B \end{matrix}$ - fuzzy analogue of $\begin{matrix} C \\ D \end{matrix} S_1 t_B^A$ [11]))

Consider examples

$$1. fSAprt \left\{ \begin{matrix} q \left(\begin{matrix} a & a \\ Q_1 fSArtQ_1 \\ a & a \end{matrix} \right)_{W_q} fSprt_{q \left(\begin{matrix} a & a \\ Q_1 fSArtQ_1 \\ a & a \end{matrix} \right)}^{E_q}, fSprt_{d_r \left(\begin{matrix} E_{ex} l^{d_r} \\ E_{in} l^{d_r} \end{matrix} \right)} \end{matrix} \right\} \text{---faprogram structure}$$

$\begin{matrix} Q \\ t_0 \end{matrix}$

example, where the assemblage point d_r is the cursor, it is quite complex $sel_Q f$ —faprogram.

$$2. \text{fSAprt} \left\{ \begin{matrix} q \left(\begin{matrix} a \\ a \end{matrix} \right)_{Q_1 \text{fSArt} Q_1} \\ W_q \end{matrix} \text{fSprt}^{E_q}_{q \left(\begin{matrix} a \\ a \end{matrix} \right)_{Q_1 \text{fSArt} Q_1}}, \text{fSprt}^{E^{ex} l^{d_r}}_{d_r(E_{in} l^{d_r})} \right\} \text{ can be interpreted as}$$

$$\begin{matrix} Q \\ t_0 \end{matrix}$$

a faprogram operator.

$$\begin{matrix} a & a \\ Q_1 \text{fSArt} Q_1 \end{matrix} \text{ can be interpreted as a } \begin{pmatrix} s_1 elf \\ os_1 elf \end{pmatrix} \text{-faprogram operator.}$$

$$\begin{matrix} a & a \\ Q_1 \text{fSArt} Q_1 \end{matrix} \text{-- sample } \begin{pmatrix} s_1 elf \\ os_1 elf \end{pmatrix} \text{-faprogram structure example.}$$

Appendix

Remark. Energy of a living organism:

$$\text{afg}(r, a(E_q)) = \text{fSAprt} \left\{ \begin{matrix} q \left(\begin{matrix} a \\ a \end{matrix} \right)_{Q_1 \text{fSArt} Q_1} \\ W_q \end{matrix} \text{fSprt}^{E_q}_{q \left(\begin{matrix} a \\ a \end{matrix} \right)_{Q_1 \text{fSArt} Q_1}}, \text{fSprt}^{E^{ex} l^{d_r}}_{d_r(E_{in} l^{d_r})} \right\} \quad (**_{4.7}).$$

$$\begin{matrix} Q \\ t_0 \end{matrix}$$

$\begin{matrix} a & a \\ Q_1 \text{fSArt} Q_1 \end{matrix}$ -internal energy of a living organism, q - a gap in the energy cocoon of a living organism, r -the position of the assemblage point d_r on the energy cocoon of a living organism, W_q - energy prominences from the gap in the cocoon of a living organism, E_q -external energy entering the gap in the cocoon of a living organism, $E^{ex} l^{d_r}$ - a bundle of fibers of external energy sel_Q -capacities from outside the cocoon, collected at the point of assembly of the cocoon of a living organism at time t_0 , $E_{in} l^{d_r}$ - a bundle of fibers of external energy sel_Q -capacities from inside the cocoon, collected at the point of assembly of the cocoon of a living organism in the same position r of the assemblage point d_r . d_r is the subject of identifying the energy fibers of the subtle energy of the Universe in position r both outside and inside the cocoon.

Energy with actions Q_1 , Q of a living organism of a person:

$$\text{afpg}(r, a(E_q)) = \left\{ \begin{array}{c} q \left(\begin{array}{c} a \\ Q_1 \text{fSArt} Q_1 \\ a \end{array} \right) \\ W_q \end{array} \right. fSprt_{q \left(\begin{array}{c} a \\ Q_1 \text{fSArt} Q_1 \\ a \end{array} \right)}^{E_q} fSprt_{d_r \left(\begin{array}{c} E_{ex} \\ d_r \end{array} \right)}^{E_{ex} d_r} \left. \right\} \quad (***_4.7).$$

Q
 t_0

(**_{4.7}), (***__{4.7}) can be interpreted as fSArt - program operators.

Entire neural network as instantaneous simultaneous afRAM in fSAprt-elements

and sel_Qf - elements. $f_{sel_Q} f^{f_{sel_Q} f} \dots^{f_{sel_Q} f}$, $ff1 \downarrow I \uparrow_{-1}^1 f f_2$ $ff1 \downarrow I \uparrow_{-1}^1 f f_2 \dots^{ff1 \downarrow I \uparrow_{-1}^1} f f_2$,

$f_{sin \infty} f^{sin \infty} \dots^{f_{sin \infty}}$. When activated in a neural network, the entire neural network becomes a working memory. Use of sel_Qf -energy as fuzzy activation or from

$$\begin{array}{c} fSA_{mnSprt} \\ fSAprt \quad Q \\ \text{activation} \\ \text{outside. af}Q_0 = fSAprt \quad Q \rightarrow \text{sel}_Q f \text{-afRAM, af}Q_{00} = \\ fSA_{mnSprt} \\ fSAprt \quad Q \\ \text{activation} \end{array}$$

$$\begin{array}{c} fSA_{mnSprt} \\ Q \quad fSAprt \\ \text{activation} \end{array} \quad \begin{array}{c} fSA_{mnSprt} \\ fSAprt \quad Q \\ \text{activation} \end{array} \quad \begin{array}{c} fSA_{mnSprt} \\ fSAprt \quad Q \\ \text{activation} \end{array}$$

$$\text{af}Q_0 \text{prt, af}Q_{01} = \text{af}Q_0 \cdot \text{af}Q_0, \text{af}Q_{00}, \text{af}Q_{01} -$$

coding, translation, realization in faepgrams, use af_{Q0}, af_{Q00}, af_{Q01} - fSA_{mnSprt}, afAssembler.

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Part V. Uprrt-elements and Their Applications

Introduction

The part VII task: to understand hierarchy of energies in the Universe and the principles of functioning of living energy (living organism, in particular, human, subtle energies), and then using these principles to "construct" artificial living energies (let's call them pseudo-living energies). We transform all kinds of uncertainties into new singularities and use them to describe uncertain energies. Here is considered paradoxical singularities (singularities of disintegration&synthesis), self-type singularities.

A Uprrt – elements, self-type Uprrt-structures

A.1 Uprrt – elements, self-type Uprrt-structures

Remark A.1.0. As *an* action A we can take a clotting of energies into more subtle

ones (accumulation). Let us introduce the notations of $\text{Rprt } \begin{matrix} \text{action } A \\ B \end{matrix}$ [18] by $\text{action } A$

$\begin{matrix} 1 \\ B \end{matrix} \text{self } A,$

$\text{Rprt } \begin{matrix} B \\ \text{action } A \end{matrix} \text{ by } \begin{matrix} 2 \\ B \end{matrix} \text{self } A, \text{ Rprt } \begin{matrix} \text{action } A \\ B \end{matrix} A^{-1} (\text{or } \text{Rprt } \begin{matrix} \text{action } A \\ B \end{matrix} - A) \text{ by } \begin{matrix} 3 \\ B \end{matrix} \text{paself } A, \text{ Rprt } \begin{matrix} \text{action } A \\ B \end{matrix}$

$\begin{matrix} \text{action } A^{-1} \\ B \end{matrix} \text{ (or } \text{Rprt } \begin{matrix} \text{action } A \\ B \end{matrix} \text{) by } \begin{matrix} -3 \\ B \end{matrix} \text{paself } A, \text{ Rprt } \begin{matrix} B \\ \text{action } A \end{matrix} \text{ (or } \begin{matrix} \text{action } A^{-1} \\ \text{action } A \end{matrix}$

$\text{Rprt } \begin{matrix} B \\ \text{action } A \end{matrix} \text{) by } \begin{matrix} -2 \\ B \end{matrix} \text{paself } A, \text{ Rprt } \begin{matrix} B \\ \text{action } A \end{matrix} A^{-1} \text{ (or } \begin{matrix} \text{action } A \\ \text{action } A \end{matrix}$

$$\begin{array}{c} B \\ \text{Rprt } action - A) \text{ by } \frac{2}{B} paself A, \text{ Rprt } \frac{action}{B} A^{-1} \text{ (or Rprt } \frac{action - A}{B}) \text{ by } \frac{1}{B} paself A \\ action A \end{array}$$

$$\begin{array}{c} action A \\ \text{Rprt } \frac{B}{action A^{-1}} \text{ (or Rprt } \frac{action A}{B}) \text{ by } \frac{-1}{B} paself A . \text{ Then (A.1*)} \\ action - A \end{array}$$

$$\left(\begin{array}{c} \vdots \\ \parallel \\ A \\ | \\ A \\ \vdots \\ A \\ \left(\begin{array}{c} \equiv \\ A \end{array} \right) \\ self \parallel \\ \parallel \\ \tilde{A} \\ {}^1_A self A \\ {}^1_B self A, {}^2_B self A \\ A \\ \underline{A} \end{array} \right) \quad (\text{A.1**}).$$

${}^1_A self A$ has self-level: $self^{\frac{3}{2}}(A)$. Self-action $\overline{A}$ is interpreted as the subject of action A (spirit of action A). Here A represented by a hierarchical set

$\left(\begin{array}{c} {}^1_A self A \\ {}^1_B self A, {}^2_B self A \\ A \end{array} \right)$, and $\left(\begin{array}{c} \equiv \\ \overline{A} \end{array} \right)$ is represented by a hierarchical set

$$\left(\begin{array}{c} {}_{A^{-1}}^1 paself A, {}_{A^{-1}}^{-1} paself A, {}_A^{-2} paself A, {}_{A^{-1}}^{-2} paself A, {}_A^3 paself A, {}_{A^{-1}}^3 paself A, \\ {}_A^1 paself A, {}_{A^{-1}}^{-1} paself A, {}_A^2 paself A, {}_{A^{-1}}^2 paself A, {}_A^{-3} paself A, {}_{A^{-1}}^{-3} paself A \\ {}_B^1 self A, {}_B^2 self A, {}_B^{-1} paself A, {}_B^{-2} paself A, {}_B^3 paself A, {}_B^{-3} paself A \end{array} \right) \text{ or}$$

$$\begin{pmatrix} {}^1_{-A}paself A, {}^{-1}_A paself A, {}^{-2}_A paself A, {}^{-2}_{-A} paself A, {}^3_A paself A, {}^{-3}_{-A} paself A, \\ {}^1_A paself A, {}^{-1}_{-A} paself A, {}^2_A paself A, {}^{-2}_{-A} paself A, {}^{-3}_A paself A, {}^{-3}_{-A} paself A \\ {}^1_B self A, {}^2_B self A, {}^{-1}_B paself A, {}^{-2}_B paself A, {}^3_B paself A, {}^{-3}_B paself A \end{pmatrix}.$$

The structure of accumulation levels (their hierarchy) is nothing more than a 2-interpretation of the accumulation capacity (its form). Next - the self-capacity of accumulation, etc. according to its scheme (A.1**). Next - the self-scheme corresponding to the scheme (A.1**). An accumulation is manifestation of self-accumulation or self ∇ action according to accumulation or self ∇ change according to accumulation.

Remark A.1.0*. May consider $self((A.1^{**}))$, $paself((A.1^{**}))$, $self^2((A.1^{**}))$, $paself^2((A.1^{**}))$, ..., $Af(n, self((A.1^{**}))) = (self^n((A.1^{**})), pAf(n, paself((A.1^{**}))) = paself^n((A.1^{**})), \dots, Af(\alpha, self((A.1^{**}))), pAf(\alpha, paself((A.1^{**}))), Af(\infty, self((A.1^{**}))), pAf(\infty, paself((A.1^{**}))), Af(self((A.1^{**})), self((A.1^{**}))), pAf(paself((A.1^{**})), paself((A.1^{**})))$ etc. May transform of uncertainty $\sin(0^{*\infty})$ into new singularity and use it to describe uncertain energies.

We consider dynamic operator

$$\begin{array}{ccc}
\vdots & & \vdots \\
C & \uparrow & \overline{\overline{W}} \\
\uparrow & & \uparrow \\
\overline{P} & \uparrow & \overline{\overline{J}} \\
\uparrow & & \uparrow \\
\overline{\overline{S}} & \uparrow & \overline{\overline{H}} \\
\uparrow & & \uparrow \\
\overline{\overline{K}} & \uparrow & \overline{\overline{F}} \\
\uparrow & & \uparrow \\
\overline{\overline{R}} & \uparrow & \overline{\overline{A}} \\
\uparrow & \text{Uprt} & \uparrow \\
\overline{\overline{G}} & & \overline{\overline{L}} \\
\uparrow & & \uparrow \\
\overline{\overline{O}} & & \overline{\overline{D}} \\
\uparrow & & \uparrow \\
\overline{\overline{U}} & & \overline{\overline{Q}} \\
\uparrow & & \uparrow \\
\overline{\overline{V}} & & B \\
\vdots & & \vdots
\end{array} \quad (\text{A.1.1}),$$

where $\overline{\overline{W}}, \overline{\overline{V}}$ - *parelf* levels of W and V respectively, $\overline{\overline{J}}, \overline{\overline{U}}$ - singelf levels of J and U respectively, $\overline{\overline{H}}, \overline{\overline{O}}$ - paradoxical upper levels of H and O respectively, $\overline{\overline{F}}, \overline{\overline{G}}$ - paradoxical average levels of F and G respectively, $\overline{\overline{A}}, \overline{\overline{R}}$ - upper levels of A and R respectively, $\overline{Q}, \overline{P}$ - middle₁ levels of Q and P respectively, B goes to the middle₀ level of Q - $\overline{Q}$, $\overline{Q}$ goes to the middle₁ level $\overline{\overline{D}}$, $\overline{\overline{D}}$ goes to the middle₂ level $\overline{\overline{L}}$, $\overline{\overline{L}}$ goes to the upper level of A - $\overline{\overline{A}}$, $\overline{\overline{A}}$ goes to the paradoxical middle level of F - $\overline{\overline{F}}$, $\overline{\overline{F}}$ goes to the paradoxical upper level of H - $\overline{\overline{H}}$, $\overline{\overline{H}}$ goes to the singelf levels of J - $\overline{\overline{J}}, \overline{\overline{J}}$ goes to the *parelf* levels of W - $\overline{\overline{W}}$ etc, $\overline{\overline{V}}$ goes to the $\overline{\overline{U}}, \overline{\overline{U}}$ goes to the $\overline{\overline{O}}, \overline{\overline{O}}$ goes to the paradoxical middle level of G - $\overline{\overline{G}}, \overline{\overline{G}}$ goes to the upper level of R - $\overline{\overline{R}}$,

$\tilde{R}$ goes to the middle₂ level $\overline{\overline{K}}$, $\overline{\overline{K}}$ goes to the middle₁ level $\overline{\overline{S}}$, $\overline{\overline{S}}$ goes to the middle₀ level of P - $\overline{P}$, $\overline{P}$ goes to the lower level of C etc simultaneously. The result of this process will be described by the expression

$$\begin{array}{c}
 \dots \\
 C \\
 \uparrow \\
 \overline{P} \\
 \uparrow \\
 \overline{\overline{S}} \\
 \uparrow \\
 \overline{\overline{\overline{K}}} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{\overline{\overline{G}}} \\
 \uparrow \\
 \overline{\overline{\overline{O}}} \\
 \uparrow \\
 \overline{\overline{\overline{U}}} \\
 \uparrow \\
 \overline{\overline{\overline{V}}} \\
 \dots
 \end{array}
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W}}} \\
 \uparrow \\
 \overline{\overline{\overline{J}}} \\
 \uparrow \\
 \overline{\overline{\overline{H}}} \\
 \uparrow \\
 \overline{\overline{\overline{F}}} \\
 \uparrow \\
 \overbrace{A} \\
 \uparrow \\
 \overline{\overline{\overline{L}}} \\
 \uparrow \\
 \overline{\overline{\overline{D}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q}}} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 \begin{array}{c}
 \text{Uprt} \\
 \text{(A.1.2).}
 \end{array}$$

Definition A.1.1. The dynamic operator (A.1.1) we shall call Uprt – element of the first type, (A.1.2) we shall call Urt – element of the first type.

Remark A.1.1 Can consider Uprt – elements use the Banach space.

It's allowed to add Uprt – elements:

$$\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow \breve{O} \uparrow \breve{U} \right\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\uparrow \breve{J} \uparrow \left\{ H_1 \right\} \uparrow \equiv F \uparrow \left\{ A \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \right\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow \breve{O} \uparrow \breve{U} \right\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\uparrow \breve{J} \uparrow \left\{ H_2 \right\} \uparrow \equiv F \uparrow \left\{ A \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \right\} \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow \breve{O} \uparrow \breve{U} \right\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\uparrow \breve{J} \uparrow \left\{ H_1 \right\} \cup \left\{ H_2 \right\} \uparrow \equiv F \uparrow \left\{ A \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \right\} \\
\vdots
\end{array}
\quad (\text{A.1.2.1}),$$

$$\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left. R \right\} \uparrow \equiv G \uparrow \uparrow \uparrow O \uparrow \uparrow \uparrow U \uparrow \uparrow \uparrow V \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt} \\
\vdots \\
\vdots \\
W \uparrow \uparrow J \uparrow \uparrow H \uparrow \uparrow F \uparrow \uparrow A \uparrow \uparrow L \uparrow \uparrow D \uparrow \uparrow Q \uparrow \uparrow B_1 \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left. R \right\} \uparrow \equiv G \uparrow \uparrow \uparrow O \uparrow \uparrow \uparrow U \uparrow \uparrow \uparrow V \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt} \\
\vdots \\
\vdots \\
W \uparrow \uparrow J \uparrow \uparrow H \uparrow \uparrow F \uparrow \uparrow A \uparrow \uparrow L \uparrow \uparrow D \uparrow \uparrow Q \uparrow \uparrow B_2 \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left. R \right\} \uparrow \equiv G \uparrow \uparrow \uparrow O \uparrow \uparrow \uparrow U \uparrow \uparrow \uparrow V \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt} \\
\vdots \\
\vdots \\
W \uparrow \uparrow J \uparrow \uparrow H \uparrow \uparrow F \uparrow \uparrow A \uparrow \uparrow L \uparrow \uparrow D \uparrow \uparrow Q \uparrow \uparrow B_1 \cup B_2 \\
\vdots
\end{array}
\quad (\text{A.1.2.2}),$$

$$\begin{array}{c}
\begin{array}{c}
\vdots \\
C_1 \\
\uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \{V\} \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt} \\
\begin{array}{c}
\vdots \\
\{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \equiv F \uparrow \{A\} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
+
\begin{array}{c}
\begin{array}{c}
\vdots \\
C_2 \\
\uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \{V\} \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt} \\
\begin{array}{c}
\vdots \\
\{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \equiv F \uparrow \{A\} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
=
\begin{array}{c}
\begin{array}{c}
\vdots \\
C_1 \cup C_2 \\
\uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \{V\} \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt} \\
\begin{array}{c}
\vdots \\
\{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \equiv F \uparrow \{A\} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
\end{array}
\quad (\text{A.1.2.3}),$$

$$\begin{array}{ccccccc}
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \left. \vphantom{\begin{array}{c} \vdots \\ C \end{array}} \right\} R_1 & \uparrow & \equiv & G & \uparrow & \mathcal{O} & \uparrow & \mathcal{U} & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & & \text{Uprt} & & & & & & & & & & \\
\vdots & \vdots & \\
& \vdots & W & \uparrow & \mathcal{J} & \uparrow & \mathcal{H} & \uparrow & \equiv & F & \uparrow & \mathcal{A} & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & & + & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \left. \vphantom{\begin{array}{c} \vdots \\ C \end{array}} \right\} R_2 & \uparrow & \equiv & G & \uparrow & \mathcal{O} & \uparrow & \mathcal{U} & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & & \text{Uprt} & & & & & & & & & & \\
\vdots & \vdots & \\
& \vdots & W & \uparrow & \mathcal{J} & \uparrow & \mathcal{H} & \uparrow & \equiv & F & \uparrow & \mathcal{A} & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & & = & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \left. \vphantom{\begin{array}{c} \vdots \\ C \end{array}} \right\} \widetilde{R}_1 \cup \left. \vphantom{\begin{array}{c} \vdots \\ C \end{array}} \right\} \widetilde{R}_2 & \uparrow & \equiv & G & \uparrow & \mathcal{O} & \uparrow & \mathcal{U} & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & & \text{Uprt} & & & & & & & & & & \\
\vdots & \vdots & \\
& \vdots & W & \uparrow & \mathcal{J} & \uparrow & \mathcal{H} & \uparrow & \equiv & F & \uparrow & \mathcal{A} & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \bar{Q} & \uparrow & B & \vdots
\end{array} \quad (\text{A.1.2.4}),$$

$$\begin{array}{c}
\vdots \\
C \uparrow \overline{P_1} \uparrow \overline{S} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overline{\overline{O}} \uparrow \overline{\overline{U}} \uparrow \overline{\overline{V}} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \uparrow \overline{\overline{J}} \uparrow \overline{\overline{H}} \uparrow \overline{\overline{F}} \uparrow \overline{\overline{A}} \uparrow \overline{\overline{L}} \uparrow \overline{\overline{D}} \uparrow \overline{\overline{Q}} \uparrow B \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
C \uparrow \overline{P_2} \uparrow \overline{S} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overline{\overline{O}} \uparrow \overline{\overline{U}} \uparrow \overline{\overline{V}} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \uparrow \overline{\overline{J}} \uparrow \overline{\overline{H}} \uparrow \overline{\overline{F}} \uparrow \overline{\overline{A}} \uparrow \overline{\overline{L}} \uparrow \overline{\overline{D}} \uparrow \overline{\overline{Q}} \uparrow B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \overline{P_1 \cup P_2} \uparrow \overline{S} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overline{\overline{O}} \uparrow \overline{\overline{U}} \uparrow \overline{\overline{V}} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \uparrow \overline{\overline{J}} \uparrow \overline{\overline{H}} \uparrow \overline{\overline{F}} \uparrow \overline{\overline{A}} \uparrow \overline{\overline{L}} \uparrow \overline{\overline{D}} \uparrow \overline{\overline{Q}} \uparrow B \\
\vdots
\end{array}
\quad (\text{A.1.2.5}),$$

$$\begin{array}{ccccccc}
\begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \overbrace{R} \uparrow \equiv \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \equiv \overbrace{V} \\ \vdots \end{array} & \text{Uprt} & \begin{array}{c} \vdots \\ \overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv \bar{F} \uparrow \overbrace{A} \uparrow \equiv \bar{L} \uparrow \equiv \bar{D} \uparrow \overline{Q_1} \uparrow B \\ \vdots \end{array} & + & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \overbrace{R} \uparrow \equiv \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \equiv \overbrace{V} \\ \vdots \end{array} & \text{Uprt} & \begin{array}{c} \vdots \\ \overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv \bar{F} \uparrow \overbrace{A} \uparrow \equiv \bar{L} \uparrow \equiv \bar{D} \uparrow \overline{Q_2} \uparrow B \\ \vdots \end{array} & = & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \overbrace{R} \uparrow \equiv \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \equiv \overbrace{V} \\ \vdots \end{array} & \text{Uprt} & \begin{array}{c} \vdots \\ \overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv \bar{F} \uparrow \overbrace{A} \uparrow \equiv \bar{L} \uparrow \equiv \bar{D} \uparrow \overline{Q_1 \cup Q_2} \uparrow B \\ \vdots \end{array} & \text{(A.1.2.6),}
\end{array}$$

$$\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\end{array}
\begin{array}{c}
\text{Uprt}
\end{array}
\begin{array}{c}
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F_1 \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
+
\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\end{array}
\begin{array}{c}
\text{Uprt}
\end{array}
\begin{array}{c}
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F_2 \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
=
\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\end{array}
\begin{array}{c}
\text{Uprt}
\end{array}
\begin{array}{c}
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F_1 \cup \equiv F_2 \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
\quad (\text{A.1.2.6.1}),$$

$$\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S}_1 \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \{V\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \{F\} \uparrow \{A\} \uparrow \{L\} \uparrow \{D\} \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S}_2 \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \{V\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \{F\} \uparrow \{A\} \uparrow \{L\} \uparrow \{D\} \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S}_1 \cup \bar{S}_2 \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \{V\} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \{F\} \uparrow \{A\} \uparrow \{L\} \uparrow \{D\} \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\quad \text{(A.1.2.6.2.1),}$$

$$\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \overbrace{R} \\
\uparrow \text{Uprt} \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{U} \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv \bar{F} \uparrow \overbrace{A_1} \\
\uparrow \text{Uprt} \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{D} \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \overbrace{R} \\
\uparrow \text{Uprt} \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{U} \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv \bar{F} \uparrow \overbrace{A_1 \cup A_2} \\
\uparrow \text{Uprt} \equiv \bar{G} \uparrow \overbrace{O} \uparrow \overbrace{D} \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\quad (\text{A.1.2.6.4}),$$

$$\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow \mathcal{O} \uparrow \mathcal{U} \uparrow \mathcal{V} \right. \\
\vdots
\end{array}
\end{array}
\begin{array}{c}
\text{Uprt}
\end{array}
\begin{array}{c}
\begin{array}{c}
\vdots \\
\mathcal{W} \uparrow \mathcal{J} \uparrow \mathcal{H} \uparrow \equiv F \uparrow \left\{ A \uparrow \equiv L \uparrow \overline{D_1} \uparrow \overline{Q} \uparrow B \right. \\
\vdots
\end{array}
\end{array}
+
\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow \mathcal{O} \uparrow \mathcal{U} \uparrow \mathcal{V} \right. \\
\vdots
\end{array}
\end{array}
\begin{array}{c}
\text{Uprt}
\end{array}
=
\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow \mathcal{O} \uparrow \mathcal{U} \uparrow \mathcal{V} \right. \\
\vdots
\end{array}
\end{array}
\begin{array}{c}
\text{Uprt}
\end{array}
\begin{array}{c}
\begin{array}{c}
\vdots \\
\mathcal{W} \uparrow \mathcal{J} \uparrow \mathcal{H} \uparrow \equiv F \uparrow \left\{ A \uparrow \equiv L \uparrow \overline{D_1} \cup \overline{D_2} \uparrow \overline{Q} \uparrow B \right. \\
\vdots
\end{array}
\end{array}
\end{array}
\quad (\text{A.1.2.6.4.1}),$$

$$\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left. R \right\} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overbrace{W_1} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \overline{Q} \uparrow B \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left. R \right\} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\overbrace{W_2} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \overline{Q} \uparrow B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left. R \right\} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overbrace{W_1 \cup W_2} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \overline{Q} \uparrow B \\
\vdots
\end{array}
\quad (\text{A.1.2.6.4.1.2}),$$

$$\begin{array}{ccccccc}
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \left. R \right\} & \uparrow & \equiv & G & \uparrow & \equiv & O & \uparrow & \equiv & u_1 & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & & \text{Uprt} & & & & & & & & & & & \\
\vdots & \equiv & W & \uparrow & \equiv & J & \uparrow & \equiv & H & \uparrow & \equiv & F & \uparrow & \equiv & A & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \equiv & Q & \uparrow & B & \vdots \\
& & & & & & & & & & & + & & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \left. R \right\} & \uparrow & \equiv & G & \uparrow & \equiv & O & \uparrow & \equiv & u_2 & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & & \text{Uprt} & & & & & & & & & & & \\
\vdots & \equiv & W & \uparrow & \equiv & J & \uparrow & \equiv & H & \uparrow & \equiv & F & \uparrow & \equiv & A & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \equiv & Q & \uparrow & B & \vdots \\
& & & & & & & & & & & = & & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \left. R \right\} & \uparrow & \equiv & G & \uparrow & \equiv & O & \uparrow & \equiv & u_1 \cup u_2 & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & & \text{Uprt} & & & & & & & & & & & \\
\vdots & \equiv & W & \uparrow & \equiv & J & \uparrow & \equiv & H & \uparrow & \equiv & F & \uparrow & \equiv & A & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \equiv & Q & \uparrow & B & \vdots
\end{array} \quad (\text{A.1.2.6.4.1.3}),$$

$$\begin{array}{cccccc}
\begin{array}{c} \cdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \\ K_1 \uparrow \uparrow \\ \left. R \right\} \uparrow \equiv \\ G \uparrow \uparrow \\ \mathcal{O} \uparrow \uparrow \\ \overline{U} \uparrow \uparrow \\ \mathcal{V} \uparrow \uparrow \\ \cdots \end{array} & \text{Uprt} & \begin{array}{c} \cdots \\ \overline{W} \uparrow \uparrow \\ J \uparrow \uparrow \\ H \uparrow \uparrow \\ \equiv \\ F \uparrow \uparrow \\ A \uparrow \uparrow \\ L \uparrow \uparrow \\ \overline{D} \uparrow \uparrow \\ \overline{Q} \uparrow \uparrow \\ B \uparrow \uparrow \\ \cdots \end{array} & + & \begin{array}{c} \cdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \\ K_2 \uparrow \uparrow \\ \left. R \right\} \uparrow \equiv \\ G \uparrow \uparrow \\ \mathcal{O} \uparrow \uparrow \\ \overline{U} \uparrow \uparrow \\ \mathcal{V} \uparrow \uparrow \\ \cdots \end{array} & \text{Uprt} & = & \begin{array}{c} \cdots \\ \overline{W} \uparrow \uparrow \\ J \uparrow \uparrow \\ H \uparrow \uparrow \\ \equiv \\ F \uparrow \uparrow \\ A \uparrow \uparrow \\ L \uparrow \uparrow \\ \overline{D} \uparrow \uparrow \\ \overline{Q} \uparrow \uparrow \\ B \uparrow \uparrow \\ \cdots \end{array} & \text{Uprt} & \begin{array}{c} \cdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \\ \overline{K_1} \cup \overline{K_2} \uparrow \uparrow \\ \left. R \right\} \uparrow \equiv \\ G \uparrow \uparrow \\ \mathcal{O} \uparrow \uparrow \\ \overline{U} \uparrow \uparrow \\ \mathcal{V} \uparrow \uparrow \\ \cdots \end{array} & \text{Uprt} & \begin{array}{c} \cdots \\ \overline{W} \uparrow \uparrow \\ J \uparrow \uparrow \\ H \uparrow \uparrow \\ \equiv \\ F \uparrow \uparrow \\ A \uparrow \uparrow \\ L \uparrow \uparrow \\ \overline{D} \uparrow \uparrow \\ \overline{Q} \uparrow \uparrow \\ B \uparrow \uparrow \\ \cdots \end{array} & \text{(A.1.2.6.4.1.5),}
\end{array}$$

$$\begin{array}{cccccc}
\begin{array}{c} \dots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \underbrace{R} \uparrow \equiv G \uparrow \tilde{O} \uparrow \tilde{U} \uparrow \tilde{V} \\ \dots \end{array} & \text{Uprt} & \begin{array}{c} \dots \\ \underbrace{W} \uparrow \tilde{J} \uparrow \tilde{H} \uparrow \equiv F \uparrow \underbrace{A} \uparrow \equiv L_1 \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & + & \text{Uprt} & \begin{array}{c} \dots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \underbrace{R} \uparrow \equiv F \uparrow \underbrace{A} \uparrow \equiv G \uparrow \tilde{O} \uparrow \tilde{U} \uparrow \tilde{V} \\ \dots \end{array} & = & \text{Uprt} & \begin{array}{c} \dots \\ \underbrace{W} \uparrow \tilde{J} \uparrow \tilde{H} \uparrow \equiv F \uparrow \underbrace{A} \uparrow \overset{\sim}{L_1} \cup \overset{\sim}{L_2} \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & \text{(A.1.2.6.4.1.6).}
\end{array}$$

We consider the following self-type Uprt-structure, paradoxical self-type Uprt-structure (paself-type Uprt-structure) of the first type:

$$\begin{array}{ccc}
\begin{array}{c}
\vdots \\
Q \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{S} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\left\{ R \right\} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
\mathcal{O} \\
\uparrow \\
\mathcal{U} \\
\uparrow \\
\equiv \\
Q \\
\vdots
\end{array}
&
\begin{array}{c}
\text{Uprt} \\
\uparrow \\
\equiv \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\bar{Q} \\
\uparrow \\
Q \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\equiv \\
Q \\
\uparrow \\
\equiv \\
J \\
\uparrow \\
\equiv \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\equiv \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\bar{Q} \\
\uparrow \\
Q \\
\vdots
\end{array}
\end{array}
\tag{A.1.4},$$

denote $U_2 f A; Q$.

denote $U_3 f_{H,F,A;Q;B}$.

denote $U_5 f A; Q; a$, $a \in A$,

$$\begin{array}{ccc}
 \vdots & & \vdots \\
 \uparrow & & \uparrow \\
 \overline{Q} & & \overline{W} \\
 \uparrow & & \uparrow \\
 \overline{Q} & & J \\
 \uparrow & & \uparrow \\
 \equiv & & H \\
 K & & \uparrow \\
 \uparrow & & \equiv \\
 \overbrace{R} & & F \\
 \uparrow & \text{Uprt} & \uparrow \\
 \equiv & & A \\
 G & & \uparrow \\
 \uparrow & & \equiv \\
 \overbrace{O} & & L \\
 \uparrow & & \uparrow \\
 \overbrace{U} & & \overline{Q} \\
 \uparrow & & \uparrow \\
 \overline{V} & & \overline{Q} \\
 \vdots & & \vdots
 \end{array}
 \quad (A.1.6.2),$$

denote $U_6 f$,

$$\begin{array}{c}
 \vdots \\
 \{\!\!\{\!\!\overline{\overline{W}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{J}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{H}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{F}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{A}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{L}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{D}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{Q}}\!\!\} \\
 \uparrow \\
 \{\!\!\{\!\!\overline{\overline{B}}\!\!\} \\
 \vdots
 \end{array}
 \quad (A.1.8),$$

where $\{\!\!\{\!\!\overline{\overline{W}}\!\!\}$ -*parelf* levels of W, $\{\!\!\{\!\!\overline{\overline{J}}\!\!\}$ – singelf level of J, $\{\!\!\{\!\!\overline{\overline{H}}\!\!\}$ - paradoxical upper level of H, $\{\!\!\{\!\!\overline{\overline{F}}\!\!\}$ - paradoxical average level of F, $\{\!\!\{\!\!\overline{\overline{A}}\!\!\}$ - upper level of A, $\overline{\overline{Q}}$ - middle₁ level of Q, B goes to the middle₀ level of Q - $\overline{\overline{Q}}$, $\overline{\overline{Q}}$ goes to the middle₁ level $\{\!\!\{\!\!\overline{\overline{D}}\!\!\}$, $\{\!\!\{\!\!\overline{\overline{D}}\!\!\}$ goes to the middle₂ level $\{\!\!\{\!\!\overline{\overline{L}}\!\!\}$, $\{\!\!\{\!\!\overline{\overline{L}}\!\!\}$ goes to the upper level of A - $\{\!\!\{\!\!\overline{\overline{A}}\!\!\}$, $\{\!\!\{\!\!\overline{\overline{A}}\!\!\}$ goes to the paradoxical middle level of F - $\{\!\!\{\!\!\overline{\overline{F}}\!\!\}$, $\{\!\!\{\!\!\overline{\overline{F}}\!\!\}$ goes to the paradoxical upper level of H - $\{\!\!\{\!\!\overline{\overline{H}}\!\!\}$, $\{\!\!\{\!\!\overline{\overline{H}}\!\!\}$ goes to the singelf levels of J - $\{\!\!\{\!\!\overline{\overline{J}}\!\!\}$, $\{\!\!\{\!\!\overline{\overline{J}}\!\!\}$ goes to the *parelf* levels of W - $\{\!\!\{\!\!\overline{\overline{W}}\!\!\}$ etc simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
 \vdots \\
 \overline{\overline{\overline{W}}} \\
 \uparrow \\
 \overline{\overline{\overline{J}}} \\
 \uparrow \\
 \overline{\overline{\overline{H}}} \\
 \uparrow \\
 \overline{\overline{\overline{F}}} \\
 \uparrow \\
 \overline{\overline{\overline{A}}} \\
 \uparrow \\
 \overline{\overline{\overline{L}}} \\
 \uparrow \\
 \overline{\overline{\overline{D}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q}}} \\
 \uparrow \\
 \overline{\overline{\overline{B}}} \\
 \vdots
 \end{array}
 \quad \begin{array}{l}
 \text{Urt} \\
 \text{(A.1.9)}
 \end{array}$$

or

$$\begin{array}{c}
\vdots \\
\overline{\overline{C}} \\
\uparrow \\
\overline{\overline{P}} \\
\uparrow \\
\overline{\overline{S}} \\
\uparrow \\
\overline{\overline{K}} \\
\uparrow \\
\overline{\overline{R}} \\
\uparrow \text{ Uprt (A.1.10),} \\
\overline{\overline{G}} \\
\uparrow \\
\overline{\overline{O}} \\
\uparrow \\
\overline{\overline{U}} \\
\uparrow \\
\overline{\overline{V}} \\
\vdots
\end{array}$$

where $\overline{\overline{V}}$ - *parelf* level of V, $\overline{\overline{U}}$ - singelf- level of U, $\overline{\overline{O}}$ - paradoxical upper level of O, $\overline{\overline{G}}$ - paradoxical average level of G, $\overline{\overline{R}}$ - upper level of R, $\overline{\overline{P}}$ - middle₁ level of P, $\overline{\overline{V}}$ goes to the $\overline{\overline{U}}$, $\overline{\overline{U}}$ goes to the $\overline{\overline{O}}$, $\overline{\overline{O}}$ goes to the paradoxical middle level of G - $\overline{\overline{G}}$, $\overline{\overline{G}}$ goes to the upper level of R - $\overline{\overline{R}}$, $\overline{\overline{R}}$ goes to the middle₂ level $\overline{\overline{K}}$, $\overline{\overline{K}}$ goes to the middle₁ level $\overline{\overline{S}}$, $\overline{\overline{S}}$ goes to the middle₀ level of P - $\overline{\overline{P}}$, $\overline{\overline{P}}$ goes to the lower level of C etc simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
 \dots \\
 C \\
 \uparrow \\
 \bar{P} \\
 \uparrow \\
 \bar{S} \\
 \uparrow \\
 \equiv \\
 K \\
 \uparrow \\
 \left. R \right\} \\
 \uparrow \\
 \equiv \\
 G \\
 \uparrow \\
 \left. O \right\} \\
 \uparrow \\
 \left. U \right\} \\
 \uparrow \\
 \equiv \\
 V \\
 \dots
 \end{array}
 \quad \text{Urt (A.1.11)}$$

Definition 1,2. The dynamic operator (A.1.8) we shall call Uprt – element of the second type, (A.1.9) we shall call Urt – element of the second type.

It's allowed to add Uprt – elements of the second type:

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H_1}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt}
+
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H_2}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt}
=
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H_1}} \cup \overline{\overline{H_2}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt}
\quad (\text{A.1.12}),$$

$$\begin{array}{c}
\vdots \\
\} \\
\} \\
\} \\
W \\
\uparrow \\
\} \\
\} \\
J \\
\uparrow \\
\} \\
\} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\} \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B_1 \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\} \\
\} \\
\} \\
W \\
\uparrow \\
\} \\
\} \\
J \\
\uparrow \\
\} \\
\} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\} \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B_2 \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
\} \\
\} \\
\} \\
W \\
\uparrow \\
\} \\
\} \\
J \\
\uparrow \\
\} \\
\} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\} \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B_1 \cup B_2 \\
\vdots
\end{array}
\quad (A.1.13),$$

$$\begin{array}{c}
\vdots \\
\} \\
\} \\
\} \\
W \\
\uparrow \\
\} \\
\} \\
J \\
\uparrow \\
\} \\
\} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\} \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\overline{Q_1} \\
\uparrow \\
B \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\} \\
\} \\
\} \\
W \\
\uparrow \\
\} \\
\} \\
J \\
\uparrow \\
\} \\
\} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\} \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\overline{Q_2} \\
\uparrow \\
B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
\} \\
\} \\
\} \\
W \\
\uparrow \\
\} \\
\} \\
J \\
\uparrow \\
\} \\
\} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\} \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\overline{Q_1} \cup \overline{Q_2} \\
\uparrow \\
B \\
\vdots
\end{array}
\quad (\text{A.1.13.1}),$$

$$\begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F_1}} \\
 \text{Uprt} \uparrow \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 \overline{B} \\
 \dots
 \end{array}
 +
 \begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F_2}} \\
 \text{Uprt} \uparrow \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 \overline{B} \\
 \dots
 \end{array}
 =
 \begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F_1}} \cup \overline{\overline{F_2}} \\
 \text{Uprt} \uparrow \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 \overline{B} \\
 \dots
 \end{array}
 \quad (\text{A.1.13.2}),$$

$$\begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \uparrow \\
 \overline{\overline{A_1}}
 \end{array}
 +
 \begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \uparrow \\
 \overline{\overline{A_2}}
 \end{array}
 =
 \begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \uparrow \\
 \overline{\overline{A_1 \cup A_2}}
 \end{array}
 \quad (\text{A.1.13.3}),$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D_1}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt} +
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D_2}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt} =
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D_1}} \cup \overline{\overline{D_2}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt} \quad (\text{A.1.13.3.1}),$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{J_1} \\
\uparrow \\
\overline{H} \\
\uparrow \\
\overline{F} \\
\uparrow \\
\overline{A} \\
\uparrow \\
\overline{L} \\
\uparrow \\
\overline{D} \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{J_2} \\
\uparrow \\
\overline{H} \\
\uparrow \\
\overline{F} \\
\uparrow \\
\overline{A} \\
\uparrow \\
\overline{L} \\
\uparrow \\
\overline{D} \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{J_1} \cup \overline{J_2} \\
\uparrow \\
\overline{H} \\
\uparrow \\
\overline{F} \\
\uparrow \\
\overline{A} \\
\uparrow \\
\overline{L} \\
\uparrow \\
\overline{D} \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B \\
\vdots
\end{array}
\quad (\text{A.1.13.3.2}),$$

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W_1}}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \text{Uprt} \uparrow \\
 \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 +
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W_2}}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \text{Uprt} \uparrow \\
 \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 =
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W_1 \cup W_2}}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \text{Uprt} \uparrow \\
 \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 \quad (\text{A.1.13.3.3}),$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L_1}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt}
+
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L_2}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt}
=
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L_1 \cup L_2}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{Uprt}
\quad (\text{A.1.13.3.4}).$$

We consider the following self-type Uprt-structures of the second type:

$$\begin{array}{c}
 \vdots \\
 \parallel \\
 \} \\
 A \\
 \uparrow \\
 \parallel \\
 \} \\
 A \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 \parallel \\
 Q \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 \parallel \\
 Q \\
 \uparrow \\
 \parallel \\
 Q \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 a \\
 \vdots
 \end{array}
 \text{Uppt} \quad (\text{A.1.14.1}),$$

denote $U_7 f A; Q; a, a \subset A,$

$$\begin{array}{c}
\vdots \\
\parallel \\
\} \\
a \\
\uparrow \\
| \\
\} \\
a \\
\uparrow \\
\} \\
a \\
\uparrow \\
\parallel \\
\parallel \\
\parallel \\
\mathcal{O} \\
\uparrow \\
\} \\
a \\
\uparrow \\
\parallel \\
\parallel \\
\mathcal{O} \\
\uparrow \\
\parallel \\
\parallel \\
\mathcal{O} \\
\uparrow \\
\overline{\mathcal{O}} \\
\uparrow \\
str A
\end{array}
\tag{A.1.15},$$

denote $U_8fa;Q;A, a \subset A$,

$$\begin{array}{c}
 \vdots \\
 \parallel \\
 A \\
 \uparrow \\
 \parallel \\
 A \\
 \uparrow \\
 A \\
 \uparrow \\
 \parallel \\
 A \\
 \uparrow \\
 A \\
 \uparrow \\
 A \\
 \uparrow \\
 Q \\
 \uparrow \\
 Q \\
 \uparrow \\
 Q \\
 \uparrow \\
 Q \\
 \vdots
 \end{array}
 \quad (A.1.16),$$

and any other possible options of self for (A.1.8) etc.

Definition A.1.3. The dynamic operator (A.1.10) we shall call tprU – element, (A.1.11) we shall call trU – element.

It's allowed to add tprU – elements:

$$\begin{array}{ccc}
\begin{array}{c} \dots \\ C_1 \\ \uparrow \bar{P} \\ \uparrow \bar{S} \\ \uparrow \equiv \\ \overline{K} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \equiv \\ G \\ \uparrow \\ \overbrace{O} \\ \uparrow \\ \overline{U} \\ \uparrow \\ \equiv \\ \overbrace{V} \\ \dots \end{array} & \text{Uprt +} & \begin{array}{c} \dots \\ C_2 \\ \uparrow \bar{P} \\ \uparrow \bar{S} \\ \uparrow \equiv \\ \overline{K} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \equiv \\ G \\ \uparrow \\ \overbrace{O} \\ \uparrow \\ \overline{U} \\ \uparrow \\ \equiv \\ \overbrace{V} \\ \dots \end{array} \\
& & \text{Uprt =} & \begin{array}{c} \dots \\ C_1 \cup C_2 \\ \uparrow \bar{P} \\ \uparrow \bar{S} \\ \uparrow \equiv \\ \overline{K} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \equiv \\ G \\ \uparrow \\ \overbrace{O} \\ \uparrow \\ \overline{U} \\ \uparrow \\ \equiv \\ \overbrace{V} \\ \dots \end{array}
\end{array}$$

Uprt (A.1.17),

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{\bar{S}} \uparrow \\
 \equiv \\
 K \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G \uparrow \\
 \overbrace{O_1} \uparrow \\
 \overline{\overline{U}} \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt} + \quad
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{\bar{S}} \uparrow \\
 \equiv \\
 K \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G \uparrow \\
 \overbrace{O_2} \uparrow \\
 \overline{\overline{U}} \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt} = \quad
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{\bar{S}} \uparrow \\
 \equiv \\
 K \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G \uparrow \\
 \overbrace{O_1 \cup O_2} \uparrow \\
 \overline{\overline{U}} \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 \quad \text{Uprt (A.1.18),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \\
 \uparrow \\
 \overline{P_1} \\
 \uparrow \\
 \overline{S} \\
 \uparrow \\
 \overline{\overline{K}} \\
 \uparrow \\
 \overline{R} \\
 \uparrow \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overline{\overline{O}} \\
 \uparrow \\
 \overline{\overline{U}} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt} + &
 \begin{array}{c}
 \dots \\
 \overline{C} \\
 \uparrow \\
 \overline{P_2} \\
 \uparrow \\
 \overline{S} \\
 \uparrow \\
 \overline{\overline{K}} \\
 \uparrow \\
 \overline{R} \\
 \uparrow \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overline{\overline{O}} \\
 \uparrow \\
 \overline{\overline{U}} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt} = &
 \begin{array}{c}
 \dots \\
 \overline{C} \\
 \uparrow \\
 (\overline{P_1} \cup \overline{P_2}) \\
 \uparrow \\
 \overline{S} \\
 \uparrow \\
 \overline{\overline{K}} \\
 \uparrow \\
 \overline{R} \\
 \uparrow \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overline{\overline{O}} \\
 \uparrow \\
 \overline{\overline{U}} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 \end{array}
 \quad \text{Uprt (A.1.18.1),}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{\overline{S}} \uparrow \\
 \overline{\overline{\overline{K}}} \uparrow \\
 \overbrace{\overline{R_1}} \uparrow \\
 \overline{\overline{\overline{G}}} \uparrow \\
 \overline{\overline{\overline{O}}} \uparrow \\
 \overline{\overline{\overline{U}}} \uparrow \\
 \overline{\overline{\overline{V}}} \uparrow \\
 \dots
 \end{array}
 &
 \text{Uprt} + &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{\overline{S}} \uparrow \\
 \overline{\overline{\overline{K}}} \uparrow \\
 \overbrace{\overline{R_2}} \uparrow \\
 \overline{\overline{\overline{G}}} \uparrow \\
 \overline{\overline{\overline{O}}} \uparrow \\
 \overline{\overline{\overline{U}}} \uparrow \\
 \overline{\overline{\overline{V}}} \uparrow \\
 \dots
 \end{array}
 &
 \text{Uprt} = &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{\overline{S}} \uparrow \\
 \overline{\overline{\overline{K}}} \uparrow \\
 \overbrace{\overline{R_1} \cup \overline{R_2}} \uparrow \\
 \overline{\overline{\overline{G}}} \uparrow \\
 \overline{\overline{\overline{O}}} \uparrow \\
 \overline{\overline{\overline{U}}} \uparrow \\
 \overline{\overline{\overline{V}}} \uparrow \\
 \dots
 \end{array}
 &
 \text{Uprt (A.1.18.2),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{\bar{S}} \uparrow \\
 \equiv \\
 \bar{K} \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G_1 \uparrow \\
 \overbrace{O} \uparrow \\
 \overbrace{U} \uparrow \\
 \equiv \\
 \overbrace{V} \uparrow \\
 \dots
 \end{array}
 &
 \text{Uprt} + &
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{\bar{S}} \uparrow \\
 \equiv \\
 \bar{K} \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G_2 \uparrow \\
 \overbrace{O} \uparrow \\
 \overbrace{U} \uparrow \\
 \equiv \\
 \overbrace{V} \uparrow \\
 \dots
 \end{array}
 &
 \text{Uprt} = &
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{\bar{S}} \uparrow \\
 \equiv \\
 \bar{K} \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G_1 \cup G_2 \uparrow \\
 \overbrace{O} \uparrow \\
 \overbrace{U} \uparrow \\
 \equiv \\
 \overbrace{V} \uparrow \\
 \dots
 \end{array}
 &
 \text{Uprt (A.1.18.3),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \overline{P} \uparrow \overline{\overline{S_1}} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt} + &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \overline{P} \uparrow \overline{\overline{S_2}} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt} = &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \overline{P} \uparrow \overline{\overline{S_1} \cup \overline{\overline{S_2}}} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{Uprt (A.1.18.3.1),}
 \end{array}$$

$$\begin{array}{ccc}
\begin{array}{c}
\cdots \\
\bar{C} \uparrow \\
\bar{P} \uparrow \\
\bar{S} \uparrow \\
\equiv \\
K \uparrow \\
\overbrace{R} \uparrow \\
\equiv \\
G \uparrow \\
\overbrace{O} \uparrow \\
\overbrace{u_1} \uparrow \\
\equiv \\
\overbrace{V} \\
\cdots
\end{array}
&
\text{Uprt} +
&
\begin{array}{c}
\cdots \\
\bar{C} \uparrow \\
\bar{P} \uparrow \\
\bar{S} \uparrow \\
\equiv \\
K \uparrow \\
\overbrace{R} \uparrow \\
\equiv \\
G \uparrow \\
\overbrace{O} \uparrow \\
\overbrace{u_2} \uparrow \\
\equiv \\
\overbrace{V} \\
\cdots
\end{array}
&
\text{Uprt} =
&
\begin{array}{c}
\cdots \\
\bar{C} \uparrow \\
\bar{P} \uparrow \\
\bar{S} \uparrow \\
\equiv \\
K \uparrow \\
\overbrace{R} \uparrow \\
\equiv \\
G \uparrow \\
\overbrace{O} \uparrow \\
\overbrace{u_1 \cup u_2} \uparrow \\
\equiv \\
\overbrace{V} \\
\cdots
\end{array}
&
\text{Uprt (A.1.18.3.2),}
\end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{S} \uparrow \\
 \equiv \\
 K \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G \uparrow \\
 \overbrace{O} \uparrow \\
 \overbrace{u} \uparrow \\
 \equiv \\
 V_1 \uparrow \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 \text{Uprt} + \\
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{S} \uparrow \\
 \equiv \\
 K \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G \uparrow \\
 \overbrace{O} \uparrow \\
 \overbrace{u} \uparrow \\
 \equiv \\
 V_2 \uparrow \\
 \dots
 \end{array}
 \end{array}
 &
 \begin{array}{c}
 \text{Uprt} = \\
 \begin{array}{c}
 \dots \\
 \bar{C} \uparrow \\
 \bar{P} \uparrow \\
 \bar{S} \uparrow \\
 \equiv \\
 K \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 G \uparrow \\
 \overbrace{O} \uparrow \\
 \overbrace{u} \uparrow \\
 \equiv \\
 V_1 \cup V_2 \uparrow \\
 \dots
 \end{array}
 \end{array}
 \end{array}
 \text{Uprt (A.1.18.3.3),}$$

$$\begin{array}{ccccc}
\begin{array}{c} \dots \\ \overline{C} \\ \uparrow \\ \overline{P} \\ \uparrow \\ \overline{S} \\ \uparrow \\ \overline{\overline{K_1}} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \overline{\overline{G}} \\ \uparrow \\ \overline{\overline{O}} \\ \uparrow \\ \overline{\overline{U}} \\ \uparrow \\ \overline{\overline{V}} \\ \dots \end{array} & + & \begin{array}{c} \dots \\ \overline{C} \\ \uparrow \\ \overline{P} \\ \uparrow \\ \overline{S} \\ \uparrow \\ \overline{\overline{K_2}} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \overline{\overline{G}} \\ \uparrow \\ \overline{\overline{O}} \\ \uparrow \\ \overline{\overline{U}} \\ \uparrow \\ \overline{\overline{V}} \\ \dots \end{array} & = & \begin{array}{c} \dots \\ \overline{C} \\ \uparrow \\ \overline{P} \\ \uparrow \\ \overline{S} \\ \uparrow \\ \overline{\overline{K_1 \cup K_2}} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \overline{\overline{G}} \\ \uparrow \\ \overline{\overline{O}} \\ \uparrow \\ \overline{\overline{U}} \\ \uparrow \\ \overline{\overline{V}} \\ \dots \end{array} \quad \text{Uprt (A.1.18.3.4).}
\end{array}$$

We consider the following self-type tprU-structures:

$$\begin{array}{c}
 \vdots \\
 O \\
 \uparrow \\
 \bar{P} \\
 \uparrow \\
 \bar{\bar{P}} \\
 \uparrow \\
 \equiv \\
 K \\
 \uparrow \\
 \left. R \right\} \\
 \uparrow \\
 \equiv \\
 G \\
 \uparrow \\
 O \\
 \uparrow \\
 O \\
 \uparrow \\
 O \\
 \uparrow \\
 O \\
 \vdots
 \end{array}
 \begin{array}{l}
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \text{Uprt (A.1.19)} \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \end{array}$$

Uprt (A.1.19.1),

denote $U_9fd;Q;D, d \in D,$

Uprt (A.1.20),

denote $U_{10}fD;Q;d, d \in D,$

$$\begin{array}{c}
 \dots \\
 P \\
 \uparrow \\
 \bar{P} \\
 \uparrow \\
 \bar{\bar{P}} \\
 \uparrow \\
 \equiv \\
 K \\
 \uparrow \\
 \left. R \right\} \\
 \uparrow \\
 \equiv \\
 G \\
 \uparrow \\
 \left. O \right\} \\
 \uparrow \\
 \left. U \right\} \\
 \uparrow \\
 \equiv \\
 V \\
 \dots
 \end{array}
 \quad \text{Uprt (A.1.21)}$$

and any other possible options of self for (A.1.10) etc.

A.2 Dynamic Uprt – elements, self-type dynamic Uprt-structures

We considered Uprt – elements earlier. Here we consider dynamic Uprt – elements. We consider dynamic operators, whose elements change over time

$$\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \quad \text{Uprr}(t) \\
\uparrow \\
\overline{\overline{O(t)}} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\quad
\begin{array}{c}
\vdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{\overline{H(t)}}} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
\quad (A.2.1),$$

where $\overline{\overline{\overline{W(t)}}}$, $\overline{\overline{\overline{V(t)}}}$ - *parelf* levels of $W(t)$ and V respectively, $\overline{\overline{J(t)}}$, $\overline{\overline{U(t)}}$ - *singelf* levels of $J(t)$ and $U(t)$ respectively, $\overline{\overline{\overline{H(t)}}}$, $\overline{\overline{\overline{O(t)}}}$ - *paradoxical upper* levels of $H(t)$ and $O(t)$ respectively, $\overline{\overline{\overline{F(t)}}}$, $\overline{\overline{\overline{G(t)}}}$ - *paradoxical average* levels of $F(t)$ and $G(t)$ respectively, $\overline{A(t)}$, $\overline{R(t)}$ - *upper* levels of $A(t)$ and $R(t)$ respectively, $\overline{Q(t)}$, $\overline{P(t)}$ - *middle₁* levels of $Q(t)$ and $P(t)$ respectively, $B(t)$ goes to the *middle₁* level of $Q(t)$ - $\overline{Q(t)}$, $\overline{Q(t)}$ goes to the *middle₂* level $\overline{\overline{\overline{D(t)}}}$, $\overline{\overline{\overline{D(t)}}}$ goes to the *middle₂* level $\overline{\overline{\overline{L(t)}}}$, $\overline{\overline{\overline{L(t)}}}$ goes to the *upper* level of $A(t)$ - $\overline{A(t)}$, $\overline{A(t)}$ goes to the *paradoxical middle* level of $F(t)$ - $\overline{\overline{\overline{F(t)}}}$, $\overline{\overline{\overline{F(t)}}}$ goes to the *paradoxical upper* level of $H(t)$ -

$\overline{\overline{H(t)}}, \overline{\overline{H(t)}}$ goes to the singelf levels of $J(t) - \overline{\overline{J(t)}}, \overline{\overline{J(t)}}$ goes to the *parelf* levels of
 $W(t) - \overline{\overline{W(t)}}, \overline{\overline{V(t)}}$ goes to the $\overline{\overline{U(t)}}, \overline{\overline{U(t)}}$ goes to the $\overline{\overline{O(t)}}$ goes to the paradoxical
middle level of $G(t) - \overline{\overline{G(t)}}, \overline{\overline{G(t)}}$ goes to the upper level of $R(t) - \overline{\overline{R(t)}}, \overline{\overline{R(t)}}$
goes to the middle₂ level $\overline{\overline{K(t)}}, \overline{\overline{K(t)}}$ goes to the middle₁ level $\overline{\overline{S(t)}}, \overline{\overline{S(t)}}$ goes to
the middle₁ level of $P(t) - \overline{\overline{P(t)}}, \overline{\overline{P(t)}}$ goes to the lower level of $C(t)$ simultaneously.

The result of this process will be described by the expression

$$\begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{\overline{P(t)}} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{K(t)}} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \uparrow \\
 \overline{\overline{G(t)}} \\
 \uparrow \\
 \overline{\overline{O(t)}} \\
 \uparrow \\
 \overline{\overline{U(t)}} \\
 \uparrow \\
 \overline{\overline{V(t)}} \\
 \dots
 \end{array}
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \uparrow \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 \begin{array}{c}
 \\
 \\
 \\
 \\
 \\
 \\
 \text{Urt}(t) \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \end{array}
 \begin{array}{c}
 \\
 \\
 \\
 \\
 \\
 \\
 \text{(A.2.2).} \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \\
 \end{array}$$

Definition A.2.2.1. The dynamic operator (A.2.2.1) we shall call dynamic Up_{prt} – element of the first type, (A.2.2.2) we shall call dynamic U_{rt} – element of the first type.

It's allowed to add dynamic Uprt – elements:

$$\begin{array}{ccccccc}
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overbrace{H_1(t)} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overbrace{A(t)} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 + &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overbrace{H_2(t)} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overbrace{A(t)} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 = &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overbrace{H_1(t) \cup H_2(t)} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overbrace{A(t)} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 \end{array}$$

(A.2.2.2.1),

$$\begin{array}{cccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B_1(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B_2(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B_1(t) \cup B_2(t) \end{array}
\end{array}$$

(A.2.2.2.2),

$$\begin{array}{ccccccc}
C_1(t) & & \dots & & C_2(t) & & \dots \\
\uparrow & & \overbrace{\overbrace{\overbrace{\overline{W(t)}}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{\overline{W(t)}}}} \\
\overline{P(t)} & & \uparrow & & \overline{P(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overline{J(t)}}} & & \uparrow & & \overbrace{\overbrace{\overline{J(t)}}} \\
\overline{S(t)} & & \uparrow & & \overline{S(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overline{H(t)}}} & & \uparrow & & \overbrace{\overbrace{\overline{H(t)}}} \\
\overline{\overline{K(t)}} & & \uparrow & & \overline{\overline{K(t)}} & & \uparrow \\
\uparrow & & \overbrace{\overline{\overline{F(t)}}} & & \uparrow & & \overbrace{\overline{\overline{F(t)}}} \\
\overbrace{\overline{R(t)}} & & \uparrow & & \overbrace{\overline{R(t)}} & & \uparrow \\
\uparrow & \text{Uprt}(t) & \overbrace{\overline{\overline{A(t)}}} & + & \uparrow & \text{Uprt}(t) & \overbrace{\overline{\overline{A(t)}}} \\
\overline{\overline{\overline{G(t)}}} & & \uparrow & & \overline{\overline{\overline{G(t)}}} & & \uparrow \\
\uparrow & & \overbrace{\overline{\overline{L(t)}}} & & \uparrow & & \overbrace{\overline{\overline{L(t)}}} \\
\overbrace{\overline{O(t)}} & & \uparrow & & \overbrace{\overline{O(t)}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{D(t)}}} & & \uparrow & & \overline{\overline{\overline{D(t)}}} \\
\overbrace{\overline{\overline{U(t)}}} & & \uparrow & & \overbrace{\overline{\overline{U(t)}}} & & \uparrow \\
\uparrow & & \overline{Q(t)} & & \uparrow & & \overline{Q(t)} \\
\overbrace{\overline{\overline{V(t)}}} & & \uparrow & & \overbrace{\overline{\overline{V(t)}}} & & \uparrow \\
\dots & & B(t) & & \dots & & B(t)
\end{array}$$

(A.2.2.2.3),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{R_1(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{\overline{u(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{R_2(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{\overline{u(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{R_1(t) \cup R_2(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{\overline{u(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ B(t) \end{array} \\
\text{Uprt}(t) & & \text{Uprt}(t) & & \text{Uprt}(t) & & \text{Uprt}(t)
\end{array}$$

(A.2.2.2.4),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P_1(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \text{Uprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{J(t)} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{L(t)} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P_1(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \text{Uprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{J(t)} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{L(t)} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} = \\
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P_1(t) \cup P_2(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \text{Uprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{J(t)} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{L(t)} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A.2.2.2.5),

$$\begin{array}{cccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{U(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q_1(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{U(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q_2(t)} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{U(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q_1(t)} \cup \overline{Q_2(t)} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A.2.2.2.6),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A_1(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A_2(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{\overline{A_1(t)} \cup \overline{A_2(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A.2.2.2.7),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{\overline{\overline{R(t)}}} \\ \uparrow \\ \overline{\overline{\overline{\overline{G_1(t)}}}} \\ \uparrow \\ \overline{\overline{\overline{O(t)}}} \\ \uparrow \\ \overline{\overline{\overline{U(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} &
\begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} &
+ &
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{\overline{\overline{R(t)}}} \\ \uparrow \\ \overline{\overline{\overline{\overline{G_2(t)}}}} \\ \uparrow \\ \overline{\overline{\overline{O(t)}}} \\ \uparrow \\ \overline{\overline{\overline{U(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} &
= &
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{\overline{\overline{\overline{R(t)}}}} \\ \uparrow \\ \overline{\overline{\overline{\overline{G_1(t)}}}} \cup \overline{\overline{\overline{\overline{G_2(t)}}}} \\ \uparrow \\ \overline{\overline{\overline{O(t)}}} \\ \uparrow \\ \overline{\overline{\overline{U(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} &
\begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A.2.2.2.8),

$$\begin{array}{cccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O_1(t)} \\
\uparrow \\
\overline{\overline{u(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
+ &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O_2(t)} \\
\uparrow \\
\overline{\overline{u(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
= &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{\overline{O_1(t)}} \cup \overline{\overline{O_2(t)}} \\
\uparrow \\
\overline{\overline{u(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
\end{array}$$

(A.2.2.2.9),

$$\begin{array}{ccccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_1(t)}} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{u(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
+ &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_2(t)}} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{u(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
= &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_1(t)} \cup \overline{\overline{S_2(t)}}} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{u(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
\end{array}$$

(A.2.2.2.10.1),

$$\begin{array}{ccccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D_1(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
+ &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D_2(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
= &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D_1(t)} \cup \overline{\overline{D_2(t)}}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
\end{array}$$

(A.2.2.2.10.2).

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{U_1(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{U_2(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{U_1(t)} \cup \overline{\overline{U_2(t)}}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} \\
& \text{Up} & & \text{Up} & & & \text{Up}
\end{array}$$

(A.2.2.2.10.3),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{U(t)}} \\ \uparrow \\ \overline{\overline{V_1(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{U(t)}} \\ \uparrow \\ \overline{\overline{V_1(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{U(t)}} \\ \uparrow \\ \overline{\overline{V_1(t)}} \cup \overline{\overline{V_2(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} \\
\text{Uprt}(t) & & \text{Uprt}(t) & & \text{Uprt}(t) & & \text{Uprt}(t)
\end{array}$$

(A.2.2.2.10.4),

$$\begin{array}{cccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J_1(t)}} \\
\uparrow \\
\overline{H(t)} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
+
&
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\vdots
\end{array}
&
=
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J_1(t)}} \cup \overline{\overline{J_2(t)}} \\
\uparrow \\
\overline{H(t)} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
\end{array}$$

(A.2.2.2.10.5),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{\overline{\overline{R(t)}}} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{\overline{O(t)}}} \\ \uparrow \\ \overline{\overline{\overline{u(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W_1(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{\overline{\overline{R(t)}}} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{\overline{O(t)}}} \\ \uparrow \\ \overline{\overline{\overline{u(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W_1(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{\overline{\overline{R(t)}}} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{\overline{O(t)}}} \\ \uparrow \\ \overline{\overline{\overline{u(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W_1(t)}}} \cup \overline{\overline{\overline{W_2(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A.2.2.2.10.6).

We consider the following self-type dynamic Uppt-structures of the first type:

$$\begin{array}{ccc}
 Q(t) & & \dots \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{Q(t)} & & \uparrow \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{\overline{Q(t)}} & & \overbrace{Q(t)} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \overline{Q(t)} & & \overbrace{Q(t)} \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & \text{Up} & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & \text{prt}(t) & \overbrace{Q(t)} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \overline{Q(t)} & & \overbrace{Q(t)} \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overbrace{Q(t)} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{Q(t)} \\
 \overline{Q(t)} & & \uparrow \\
 \uparrow & & Q(t) \\
 \dots & &
 \end{array}
 \quad (A.2.2.3),$$

$$\begin{array}{ccc}
 Q(t) & & \dots \\
 \uparrow & & \underbrace{\hspace{1cm}} \\
 \overline{Q(t)} & & A(t) \\
 \uparrow & & \uparrow \\
 \overline{\overline{Q(t)}} & & \underbrace{\hspace{1cm}} \\
 \overline{\overline{\overline{Q(t)}}} & & Q(t) \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \underbrace{\hspace{1cm}} \\
 \uparrow & & Q(t) \\
 \overline{\overline{\overline{Q(t)}}} & \text{Uprt}(t) & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \uparrow & & \underbrace{\hspace{1cm}} \\
 \underbrace{\overline{\overline{Q(t)}}} & & Q(t) \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \underbrace{\overline{\overline{A(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{Q(t)}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \underbrace{\overline{\overline{Q(t)}}} & & \overline{Q(t)} \\
 \dots & & \uparrow \\
 & & Q(t)
 \end{array}
 \quad (A.2.2.4),$$

$$\begin{array}{ccc}
 B(t) & & \dots \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{Q(t)} & & Q(t) \\
 \uparrow & & \uparrow \\
 \overline{\overline{Q(t)}} & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & Q(t) \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overbrace{Q(t)} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & \text{Uprt}(t) & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & Q(t) \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overbrace{Q(t)} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \uparrow \\
 \dots & & B(t)
 \end{array}
 \quad (A.2.2.5),$$

(A.2.2.6),

$$\begin{array}{ccc}
 a(t) & & \dots \\
 \uparrow & & \underbrace{\hspace{1cm}} \\
 \overline{Q(t)} & & str\ A(t) \\
 \uparrow & & \uparrow \\
 \overline{\overline{Q(t)}} & & \underbrace{\hspace{1cm}} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 \underbrace{\overline{Q(t)}} & & \underbrace{\overline{Q(t)}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & \text{Uppt}(t) & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{\overline{Q(t)}}}} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 \underbrace{\overline{Q(t)}} & & \underbrace{\overline{Q(t)}} \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 str\ \underbrace{\overline{\overline{\overline{A(t)}}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \dots & & \overline{Q(t)} \\
 & & \uparrow \\
 & & a(t)
 \end{array}
 \quad (A.2.2.6.1),$$

denote $U_{11}(t) f A(t); Q(t); a(t)$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
\begin{array}{c}
str\ A(t) \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
\overline{\overline{Q(t)}} \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overbrace{Q(t)} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
\overbrace{Q(t)} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
a(t) \\
\vdots
\end{array}
&
\begin{array}{c}
\text{Uprt}(t) \\
\vdots \\
\overline{\overline{\overline{a(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
\overbrace{Q(t)} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{\overline{Q(t)}}}} \\
\uparrow \\
str\ A(t)
\end{array}
&
\begin{array}{c}
\text{(A.2.2.6.2),}
\end{array}
\end{array}$$

denote $U_{12}(t)fa(t);Q(t);A(t)$, $a(t) \subset A(t)$,

$$\begin{array}{ccc}
 B(t) & & \dots \\
 \uparrow & & \overline{\overline{\overline{B(t)}}} \\
 \overline{Q(t)} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{A(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & \text{Uprt}(t) & \overline{\overline{\overline{Q(t)}}} \quad (\text{A.2.2.7}), \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{B(t)}}} \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{B(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \dots & & B(t)
 \end{array}$$

and any other possible options of self for (A.2.2.1) etc.

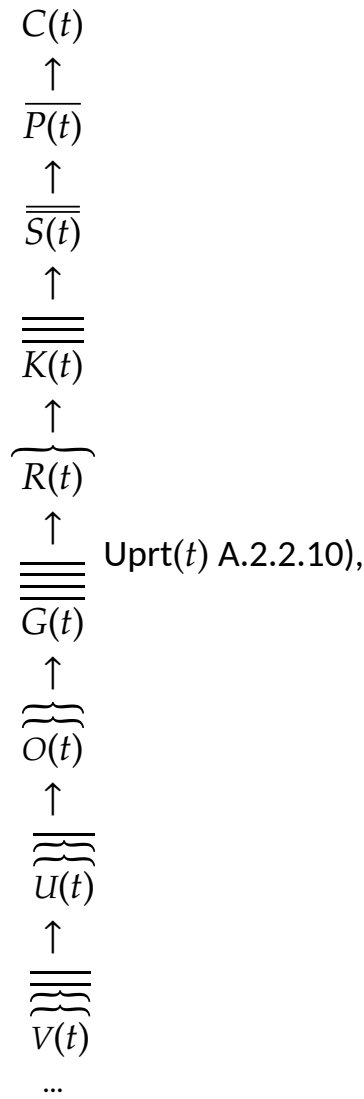
It can be considered a simpler version of the dynamic operator

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \text{Uprt}(t) \uparrow \quad (\text{A.2.2.8}), \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}$$

where $\overline{\overline{\overline{W(t)}}}$ - *parelf* levels of $W(t)$, $\overline{\overline{\overline{J(t)}}}$ - singelf levels of $J(t)$, $\overline{\overline{\overline{H(t)}}}$ - paradoxical upper level of $H(t)$, $\overline{\overline{\overline{F(t)}}}$ - paradoxical average level of $F(t)$, $\overline{\overline{\overline{A(t)}}}$ - upper level of $A(t)$, $\overline{\overline{\overline{Q(t)}}}$ - middle₁ level of $Q(t)$, $B(t)$ goes to the middle₁ level of $Q(t)$ - $\overline{\overline{\overline{Q(t)}}}$, $\overline{\overline{\overline{Q(t)}}}$ goes to the middle₂ level $\overline{\overline{\overline{D(t)}}}$, $\overline{\overline{\overline{D(t)}}}$ goes to the middle₂ level $\overline{\overline{\overline{L(t)}}}$, $\overline{\overline{\overline{L(t)}}}$ goes to the upper level of $A(t)$ - $\overline{\overline{\overline{A(t)}}}$, $\overline{\overline{\overline{A(t)}}}$ goes to the paradoxical middle level of $F(t)$ - $\overline{\overline{\overline{F(t)}}}$, $\overline{\overline{\overline{F(t)}}}$ goes to the paradoxical upper level of $H(t)$ - $\overline{\overline{\overline{H(t)}}}$, $\overline{\overline{\overline{H(t)}}}$ goes to the singelf levels of $J(t)$ - $\overline{\overline{\overline{J(t)}}}$, $\overline{\overline{\overline{J(t)}}}$ goes to the *parelf* levels of $W(t)$ - $\overline{\overline{\overline{W(t)}}}$ simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{}}} \\
 \overbrace{W(t)} \\
 \uparrow \\
 \overline{\overline{\overline{}}} \\
 \overbrace{J(t)} \\
 \uparrow \\
 \overline{\overline{\overline{}}} \\
 \overbrace{H(t)} \\
 \uparrow \\
 \overline{\overline{\overline{}}} \\
 \overbrace{F(t)} \\
 \text{Urt}(t) \quad \uparrow \quad (\text{A.2.2.9}), \\
 \overbrace{A(t)} \\
 \uparrow \\
 \overline{\overline{\overline{}}} \\
 \overbrace{L(t)} \\
 \uparrow \\
 \overline{\overline{\overline{}}} \\
 \overbrace{D(t)} \\
 \uparrow \\
 \overline{\overline{\overline{}}} \\
 \overbrace{Q(t)} \\
 \uparrow \\
 \overbrace{B(t)}
 \end{array}$$

or



where $\overline{\overline{\overline{V(t)}}}$ - *parelf* levels of $V(t)$ goes to $\overline{\overline{\overline{U(t)}}}$ - singelf levels of $U(t)$, $\overline{\overline{\overline{O(t)}}}$ - paradoxical upper level of $O(t)$, $\overline{\overline{\overline{G(t)}}}$ - paradoxical average level of $G(t)$, $\overbrace{R(t)}$ - upper levels of $R(t)$, $\overline{P(t)}$ - middle₁ level of $P(t)$, $\overline{\overline{\overline{O(t)}}}$ goes to the paradoxical middle level of $G(t)$ - $\overline{\overline{\overline{G(t)}}}$, $\overline{\overline{\overline{G(t)}}}$ goes to the upper level of $R(t)$ - $\overbrace{R(t)}$, $\overbrace{R(t)}$ goes to the middle₂ level $\overline{\overline{\overline{K(t)}}}$, $\overline{\overline{\overline{K(t)}}}$ goes to the middle₁ level $\overline{\overline{\overline{S(t)}}}$, $\overline{\overline{\overline{S(t)}}}$ goes to the middle₁ level of $P(t)$ - $\overline{P(t)}$, $\overline{P(t)}$ goes to the lower level of $C(t)$ simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \text{ Urt}(t) \text{ (A.2.2.11),} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}$$

Definition A.2.2.2. The dynamic operator (A.2.2.8) we shall call dynamic Uprt – element of the second type, (A.2.2.9) we shall call dynamic Urt – element of the second type.

It's allowed to add dynamic Uprt – elements of the second type:

$$\begin{array}{ccccc}
\begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A_1(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A_2(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A_1(t) \cup A_2(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & (A.2.2.12),
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{\overline{W(t)}}} & & \overline{\overline{\overline{W(t)}}} & & \overline{\overline{\overline{W(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{J(t)}}} & & \overline{\overline{\overline{J(t)}}} & & \overline{\overline{\overline{J(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{H(t)}}} & & \overline{\overline{\overline{H(t)}}} & & \overline{\overline{\overline{H(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{F(t)}}} & & \overline{\overline{\overline{F(t)}}} & & \overline{\overline{\overline{F(t)}}} \\
\text{Uprt}(t) \uparrow + \text{Uprt}(t) \uparrow & = & \text{Uprt}(t) \uparrow & & (A.2.2.13), \\
& \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{A(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{L(t)}}} & & \overline{\overline{\overline{L(t)}}} & & \overline{\overline{\overline{L(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{D(t)}}} & & \overline{\overline{\overline{D(t)}}} & & \overline{\overline{\overline{D(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& B_1(t) & & B_2(t) & & B_1(t) \cup B_2(t)
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{\overline{W(t)}}} & & \overline{\overline{\overline{W(t)}}} & & \overline{\overline{\overline{W(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{J(t)}}} & & \overline{\overline{\overline{J(t)}}} & & \overline{\overline{\overline{J(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{H(t)}}} & & \overline{\overline{\overline{H(t)}}} & & \overline{\overline{\overline{H(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{F(t)}}} & & \overline{\overline{\overline{F(t)}}} & & \overline{\overline{\overline{F(t)}}} \\
\text{Uprt}(t) \uparrow + \text{Uprt}(t) \uparrow & = & \text{Uprt}(t) \uparrow & & (A.2.2.13.1), \\
& \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{A(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{L(t)}}} & & \overline{\overline{\overline{L(t)}}} & & \overline{\overline{\overline{L(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{D(t)}}} & & \overline{\overline{\overline{D(t)}}} & & \overline{\overline{\overline{D(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{Q_1(t)}}} & & \overline{\overline{\overline{Q_2(t)}}} & & \overline{\overline{\overline{Q_1(t) \cup Q_2(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& B(t) & & B(t) & & B(t)
\end{array}$$

$$\begin{array}{ccccc}
& \dots & \dots & \dots & \\
& \overline{\overline{W(t)}} & \overline{\overline{W(t)}} & \overline{\overline{W(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& \overline{\overline{J(t)}} & \overline{\overline{J(t)}} & \overline{\overline{J(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& \overline{\overline{H_1(t)}} & \overline{\overline{H_2(t)}} & \overline{\overline{H_1(t) \cup H_2(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& \overline{\overline{F(t)}} & \overline{\overline{F(t)}} & \overline{\overline{F(t)}} & \\
\text{Uprt}(t) \uparrow + \text{Uprt}(t) \uparrow = \text{Uprt}(t) \uparrow & & & & \text{(A.2.2.13.2),} \\
& \overline{\overline{A(t)}} & \overline{\overline{A(t)}} & \overline{\overline{A(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& \overline{\overline{L(t)}} & \overline{\overline{L(t)}} & \overline{\overline{L(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& \overline{\overline{D(t)}} & \overline{\overline{D(t)}} & \overline{\overline{D(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& \overline{\overline{Q(t)}} & \overline{\overline{Q(t)}} & \overline{\overline{Q(t)}} & \\
& \uparrow & \uparrow & \uparrow & \\
& B(t) & B(t) & B(t) &
\end{array}$$

$$\begin{array}{ccccc}
 \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F_1(t)}}} \\ \text{Uprt}(t) \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F_2(t)}}} \\ \text{Uprt}(t) \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F_1(t) \cup F_2(t)}}} \\ \text{Uprt}(t) \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} \quad (\text{A.2.2.13.3}),
 \end{array}$$

$$\begin{array}{ccccc}
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \text{Uprt}(t) \uparrow + \text{Uprt}(t) \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D_1(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \uparrow \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D_2(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 = &
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \uparrow \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D_1(t)}} \cup \overline{\overline{D_2(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 \text{(A.2.2.13.3.1),}
 \end{array}$$

$$\begin{array}{ccccc}
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W_1(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 \text{Uprt}(t) \quad + \quad \text{Uprt}(t)
 &
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W_2(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 = \text{Uprt}(t)
 &
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W_1(t)}}} \cup \overline{\overline{\overline{W_1(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 \text{(A.2.2.13.3.2),}
 \end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{J_1(t)}} & & \overline{\overline{J_2(t)}} & & \overline{\overline{J_1(t) \cup J_2(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} \\
\text{Uprt}(t) \uparrow + \text{Uprt}(t) \uparrow & = & \text{Uprt}(t) \uparrow & & \text{(A.2.2.13.3.3),} \\
& \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{Q(t)}} & & \overline{\overline{Q(t)}} & & \overline{\overline{Q(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& B(t) & & B(t) & & B(t)
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{\overline{W(t)}}} & & \overline{\overline{\overline{W(t)}}} & & \overline{\overline{\overline{W(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{J(t)}}} & & \overline{\overline{\overline{J(t)}}} & & \overline{\overline{\overline{J(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{H(t)}}} & & \overline{\overline{\overline{H(t)}}} & & \overline{\overline{\overline{H(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{F(t)}}} & & \overline{\overline{\overline{F(t)}}} & & \overline{\overline{\overline{F(t)}}} \\
\text{Uprt}(t) \uparrow + \text{Uprt}(t) \uparrow = \text{Uprt}(t) \uparrow & & & & & \text{(A.2.2.13.3.4).} \\
& \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{A(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{L_1(t)}}} & & \overline{\overline{\overline{L_2(t)}}} & & \overline{\overline{\overline{L_1(t) \cup L_2(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{D(t)}}} & & \overline{\overline{\overline{D(t)}}} & & \overline{\overline{\overline{D(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
& \uparrow & & \uparrow & & \uparrow \\
& B(t) & & B(t) & & B(t)
\end{array}$$

We consider the following self-type dynamic Uprt-structures of the second t type:

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{str\ A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \text{Uppt}(t) \quad (A.2.2.14.1), \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 a(t)
 \end{array}$$

denote $U_{13}(t)fA(t);Q(t);a(t), a(t) \subset A(t),$

$$\begin{array}{c}
\cdots \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\text{Uprt}(t) \quad \overline{\overline{\overline{Q(t)}}} \quad (\text{A.2.2.16}), \\
\uparrow \\
\overline{\overline{\overline{A(t)}}} \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}}
\end{array}$$

and any other possible options of self for (A.2.2.8) etc.

Definition A.2.2.3. The dynamic operator (A.2.2.10) we shall call dynamic tprU – element, (A.2.2.11) we shall call dynamic trU – element.

It's allowed to add dynamic tprU – elements:

$$\begin{array}{ccccc}
 C(t) & & C(t) & & C(t) \\
 \uparrow & & \uparrow & & \uparrow \\
 \overline{P(t)} & & \overline{P(t)} & & \overline{P(t)} \\
 \uparrow & & \uparrow & & \uparrow \\
 \overline{\overline{S(t)}} & & \overline{\overline{S(t)}} & & \overline{\overline{S(t)}} \\
 \uparrow & & \uparrow & & \uparrow \\
 \overline{\overline{\overline{K(t)}}} & & \overline{\overline{\overline{K(t)}}} & & \overline{\overline{\overline{K(t)}}} \\
 \uparrow & & \uparrow & & \uparrow \\
 \overbrace{R_1(t)} & & \overbrace{R_2(t)} & & \overbrace{R_1(t) \cup R_2(t)} \\
 \uparrow & \text{Uprt}(t)+ & \uparrow & \text{Uprt}(t)= & \uparrow \\
 \overline{\overline{\overline{G(t)}}} & & \overline{\overline{\overline{G(t)}}} & & \overline{\overline{\overline{G(t)}}} \\
 \uparrow & & \uparrow & & \uparrow \\
 \overbrace{O(t)} & & \overbrace{O(t)} & & \overbrace{O(t)} \\
 \uparrow & & \uparrow & & \uparrow \\
 \overline{\overline{\overline{U(t)}}} & & \overline{\overline{\overline{U(t)}}} & & \overline{\overline{\overline{U(t)}}} \\
 \uparrow & & \uparrow & & \uparrow \\
 \overline{\overline{\overline{V(t)}}} & & \overline{\overline{\overline{V(t)}}} & & \overline{\overline{\overline{V(t)}}} \\
 \dots & & \dots & & \dots
 \end{array}
 \quad \text{Uprt}(t) \text{ (A.2.2.18),}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P_1(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P_1(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P_1(t)} \cup \overline{P_2(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \end{array}
 \begin{array}{l}
 \\
 \\
 \\
 \\
 \text{Up} \text{rt}(t) + \text{Up} \text{rt}(t) = \\
 \\
 \text{Up} \text{rt}(t) \text{ (A.2.2.18.1),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{O(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{O(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)} \cup G_2(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{O(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \end{array}
 \begin{array}{l}
 \\
 \\
 \\
 \\
 \\
 \text{Up} \\
 \text{pr} \\
 \text{t} \\
 \text{+} \\
 \text{Up} \\
 \text{pr} \\
 \text{=} \\
 \text{Up} \\
 \text{pr} \\
 \text{(t)} \\
 \text{(A.2.2.18.2),}
 \end{array}$$

$$\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O_1(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O_2(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O_1(t)} \cup \overbrace{O_2(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\begin{array}{c}
\text{Uprt}(t) + \\
\text{Uprt}(t) = \\
\text{Uprt}(t) \text{ (A.2.2.18.3),}
\end{array}$$

$$\begin{array}{ccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_1(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\text{Uprt}(t) + \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_2(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\text{Uprt}(t) = \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_1(t)} \cup \overline{\overline{S_2(t)}}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\end{array}
\quad \text{Uprt}(t) \text{ (A.2.2.18.3.1),}$$

$$\begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U_1(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \text{Up}r(t) +
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U_2(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \text{Up}r(t) =
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U_1(t)}}} \cup \overline{\overline{\overline{U_2(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \text{Up}r(t) \text{ (A.2.2.18.3.2),}$$

$$\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V_1(t)}}} \\
\ldots
\end{array}
\text{Uprt}(t) +
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V_2(t)}}} \\
\ldots
\end{array}
\text{Uprt}(t) =
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V_1(t)}}} \cup \overline{\overline{\overline{V_2(t)}}} \\
\ldots
\end{array}
\text{Uprt}(t) \text{ (A.2.2.18.3.3),}$$

$$\begin{array}{ccccc}
C(t) & C(t) & C(t) & & \\
\uparrow & \uparrow & \uparrow & & \\
\overline{P(t)} & \overline{P(t)} & \overline{P(t)} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overline{\overline{S(t)}} & \overline{\overline{S(t)}} & \overline{\overline{S(t)}} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overline{\overline{\overline{K_1(t)}}} & \overline{\overline{\overline{K_2(t)}}} & \overline{\overline{\overline{K_1(t) \cup K_2(t)}}} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overbrace{R(t)} & \overbrace{R(t)} & \overbrace{R(t)} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overline{\overline{\overline{G(t)}}} & \overline{\overline{\overline{G(t)}}} & \overline{\overline{\overline{G(t)}}} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overbrace{O(t)} & \overbrace{O(t)} & \overbrace{O(t)} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overline{\overline{\overline{U(t)}}} & \overline{\overline{\overline{U(t)}}} & \overline{\overline{\overline{U(t)}}} & & \\
\uparrow & \uparrow & \uparrow & & \\
\overline{\overline{\overline{V(t)}}} & \overline{\overline{\overline{V(t)}}} & \overline{\overline{\overline{V(t)}}} & & \\
\vdots & \vdots & \vdots & &
\end{array}
\quad \text{Up}rt(t) + \quad \text{Up}rt(t) = \quad \text{Up}rt(t) \text{ (A.2.2.18.3.4)}.$$

We consider the following self-type dynamic tprU-structures:

$$\begin{array}{c}
 Q(t) \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{R(t)}}} \text{ Uprt}(t) \text{ (A.2.2.19)} \\
 \uparrow \\
 \overbrace{\overbrace{R(t)}} \\
 \uparrow \\
 \overbrace{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{\overline{\overline{\overline{R(t)}}}} \\
 \dots
 \end{array}$$

$$\begin{array}{c}
 strD(t) \\
 \uparrow \\
 \overline{R(t)} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \overline{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{R(t)}}} \quad \text{Uppt}(t) \text{ (A.2.2.19.1),} \\
 \uparrow \\
 \overbrace{\overbrace{R(t)}} \\
 \uparrow \\
 \overbrace{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{\overline{\overline{\overline{d(t)}}}} \\
 \dots
 \end{array}$$

denote $U_{15}(t)fd(t);R(t);D(t)$, $d(t) \subset D(t)$,

$$\begin{array}{c}
 d(t) \\
 \uparrow \\
 \overline{R(t)} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \overline{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{D(t)} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \text{ Uppt}(t) \text{ (A.2.2.20)} \\
 \uparrow \\
 \overbrace{\overbrace{D(t)}} \\
 \uparrow \\
 \overbrace{\overbrace{\overbrace{D(t)}}} \\
 \uparrow \\
 \overbrace{\overbrace{\overbrace{\overbrace{D(t)}}}} \\
 \dots
 \end{array}$$

denote $U_{16}(t)fD(t);\overline{P(t)};d(t), d(t) \subset D(t)$,

$$\begin{array}{c}
 P(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{P(t)}} \\
 \overline{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{D(t)} \\
 \uparrow \\
 \overline{\overline{\overline{R(t)}}} \quad \text{Uprt}(t) \text{ (A.2.2.21)} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overbrace{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{\overline{\overline{\overline{R(t)}}}} \\
 \dots
 \end{array}$$

and any other possible options of self for (A.2.2.10) etc.

New mathematical structures and operators is carried out with generalization it to any structures with any actions. For example,

$$1) \begin{pmatrix} f_{11} & \cdots & f_{1k} \\ \vdots & \ddots & \vdots \\ (q_{j1})^{-1} & \cdots & (q_{jk})^{-1} \\ \vdots & \ddots & \vdots \\ f_{l1} & \cdots & f_{lk} \end{pmatrix} \begin{pmatrix} q_{11} & \cdots & q_{1n} \\ \vdots & \ddots & \vdots \\ q_{m1} & \cdots & q_{mn} \end{pmatrix} U U^{\text{prt}} \quad (*)$$

f_{ij}, q_{ij} – any objects, actions etc.

$$2) (w_{j1})^{-1} \begin{pmatrix} g_{11} & g_{12} & g_{13} \\ g_{21} & g_{22} & g_{23} \\ g_{31} & g_{32} & g_{33} \end{pmatrix} (w_{j2})^{-1} \begin{pmatrix} w_{11} & w_{12} & w_{1n} \\ \dots & \dots & w_{2n} \\ w_{m1} & w_{m2} & \dots \end{pmatrix} \begin{pmatrix} w_{sn} & w_{ml} \end{pmatrix} (*_1),$$

w_{ij}, g_{ij} – any objects, actions etc.

3)

$$\begin{array}{ccccc} a & & b & & g \\ c & AUUrq(\mu) & & w & (*_2), \\ d & & q & & r \end{array}$$

where $AUUrq$ is virtual structure or virtual operator, which can take any form of action; $a, c, d, q, r, w, g, b, \mu$ – any objects, actions etc.

Accordingly, we can consider all sorts of self-type structures for 1) – 3).

And any other possible structures and operators etc.

A.3 FUprt – elements, self-type FUprt-structures

We consider fuzzy dynamic operator

$$\begin{array}{ccc} \dots & & \dots \\ \overline{\overline{C}} & \uparrow & \overline{\overline{W}} \\ \overline{\overline{P}} & \uparrow & \overline{\overline{J}} \\ \overline{\overline{S}} & \uparrow & \overline{\overline{H}} \\ \overline{\overline{K}} & \uparrow & \overline{\overline{F}} \\ \overline{\overline{R}} & \uparrow & \overline{\overline{A}} \\ \overline{\overline{G}} & \uparrow & \overline{\overline{L}} \\ \overline{\overline{O}} & \uparrow & \overline{\overline{D}} \\ \overline{\overline{U}} & \uparrow & \overline{\overline{Q}} \\ \overline{\overline{V}} & \uparrow & \overline{\overline{B}} \\ \dots & & \dots \end{array} \quad \text{FUprt} \quad (A.2.11),$$

where $\overline{\overline{W}}, \overline{\overline{V}}$ - *parelf* levels of fuzzy W and fuzzy V respectively, $\overline{\overline{J}}, \overline{\overline{U}}$ – singelf levels of fuzzy J and fuzzy U respectively, $\overline{\overline{H}}, \overline{\overline{O}}$ - paradoxical upper levels of

fuzzy H and fuzzy O respectively, $\overline{\overline{F}}, \overline{\overline{G}}$ - paradoxical average levels of fuzzy F and fuzzy G respectively, $\widetilde{A}, \widetilde{R}$ - upper levels of fuzzy A and fuzzy R respectively, $\overline{Q}, \overline{P}$ - middle₁ levels of fuzzy Q and fuzzy P respectively, B goes to the middle₀ level of Q - $\overline{Q}$, $\overline{Q}$ goes to the middle₁ level fuzzy $\overline{\overline{D}}, \overline{\overline{D}}$ goes to the middle₂ level fuzzy $\overline{\overline{L}}, \overline{\overline{L}}$ goes to the upper level of A - $\widetilde{A}$, $\widetilde{A}$ goes to the paradoxical middle level of F - $\overline{\overline{F}}, \overline{\overline{F}}$ goes to the paradoxical upper level of H - $\widetilde{\widetilde{H}}$, $\widetilde{\widetilde{H}}$ goes to the singelf levels of J - $\overline{\widetilde{J}}, \overline{\widetilde{J}}$ goes to the *parelf* levels of W - $\overline{\overline{\widetilde{W}}}$ etc, $\overline{\overline{\widetilde{V}}}$ goes to the $\overline{\widetilde{U}}, \overline{\widetilde{U}}$ goes to the $\widetilde{\widetilde{O}}, \widetilde{\widetilde{O}}$ goes to the paradoxical middle level of G - $\overline{\overline{G}}$, $\overline{\overline{G}}$ goes to the upper level of R - $\widetilde{R}$, $\widetilde{R}$ goes to the middle₂ level fuzzy $\overline{\overline{K}}, \overline{\overline{K}}$ goes to the middle₁ level fuzzy $\overline{\overline{S}}, \overline{\overline{S}}$ goes to the middle₀ level of P - $\overline{P}$, $\overline{P}$ goes to the lower level of fuzzy C etc simultaneously. The result of this process will be described by the expression

$$\begin{array}{ccc}
 \vdots & & \vdots \\
 C & \uparrow & \vdots \\
 \uparrow & & \vdots \\
 \bar{P} & \uparrow & W \\
 \uparrow & & \vdots \\
 \bar{S} & \uparrow & J \\
 \uparrow & & \vdots \\
 \vdots & \uparrow & H \\
 K & \uparrow & \vdots \\
 \vdots & \uparrow & F \\
 R & \uparrow & A \\
 \vdots & \uparrow & \vdots \\
 G & \uparrow & L \\
 \vdots & \uparrow & \vdots \\
 O & \uparrow & D \\
 \vdots & \uparrow & \vdots \\
 U & \uparrow & Q \\
 \vdots & \uparrow & \vdots \\
 V & \uparrow & B \\
 \vdots & & \vdots
 \end{array}
 \begin{array}{c}
 \text{FUrt} \\
 \text{(A.2.12).}
 \end{array}$$

Definition A.2.11. The fuzzy dynamic operator (A.2.11) we shall call FUprt – element of the first type, (A.2.12) we shall call FUrt – element of the first type.

Remark A.2.11 Can consider FUprt – elements use the Banach space.

It's allowed to add FUprt – elements:

It's allowed to add FUprt – elements:

$$\begin{array}{ccccccc}
\begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \equiv \{V\} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \equiv F \uparrow \{A\} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B_1 \\ \vdots \end{array} & + & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \equiv \{V\} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \equiv F \uparrow \{A\} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B_2 \\ \vdots \end{array} & = & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R\} \uparrow \equiv G \uparrow \{O\} \uparrow \{U\} \uparrow \equiv \{V\} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \{W\} \uparrow \{J\} \uparrow \{H\} \uparrow \equiv F \uparrow \{A\} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B_1 \cup B_2 \\ \vdots \end{array} & \text{(A.2.12.2),}
\end{array}$$

$$\begin{array}{c}
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R_1} \\
\uparrow \text{FUprt} \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \\
\uparrow \overbrace{V} \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\\
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R_2} \\
\uparrow \text{FUprt} \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \\
\uparrow \overbrace{V} \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R_1 \cup R_2} \\
\uparrow \text{FUprt} \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \\
\uparrow \overbrace{V} \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \equiv D \uparrow \bar{Q} \uparrow B \\
\vdots
\end{array}
\end{array}
\quad (\text{A.2.12.4}),$$

$$\begin{array}{ccccccc}
\begin{array}{c} \vdots \\ C \uparrow \overline{P_1} \uparrow \overline{S} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{\overline{G}}} \uparrow \overline{\overline{\overline{O}}} \uparrow \overline{\overline{\overline{U}}} \uparrow \overline{\overline{\overline{V}}} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \overline{\overline{\overline{W}}} \uparrow \overline{\overline{\overline{J}}} \uparrow \overline{\overline{\overline{H}}} \uparrow \overline{\overline{\overline{F}}} \uparrow \overline{\overline{\overline{A}}} \uparrow \overline{\overline{\overline{L}}} \uparrow \overline{\overline{\overline{D}}} \uparrow \overline{\overline{\overline{Q}}} \uparrow B \\ \vdots \end{array} & + & \begin{array}{c} \vdots \\ C \uparrow \overline{P_2} \uparrow \overline{S} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{\overline{G}}} \uparrow \overline{\overline{\overline{O}}} \uparrow \overline{\overline{\overline{U}}} \uparrow \overline{\overline{\overline{V}}} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \overline{\overline{\overline{W}}} \uparrow \overline{\overline{\overline{J}}} \uparrow \overline{\overline{\overline{H}}} \uparrow \overline{\overline{\overline{F}}} \uparrow \overline{\overline{\overline{A}}} \uparrow \overline{\overline{\overline{L}}} \uparrow \overline{\overline{\overline{D}}} \uparrow \overline{\overline{\overline{Q}}} \uparrow B \\ \vdots \end{array} & = & \begin{array}{c} \vdots \\ C \uparrow \overline{P_1 \cup P_2} \uparrow \overline{S} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{\overline{G}}} \uparrow \overline{\overline{\overline{O}}} \uparrow \overline{\overline{\overline{U}}} \uparrow \overline{\overline{\overline{V}}} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \overline{\overline{\overline{W}}} \uparrow \overline{\overline{\overline{J}}} \uparrow \overline{\overline{\overline{H}}} \uparrow \overline{\overline{\overline{F}}} \uparrow \overline{\overline{\overline{A}}} \uparrow \overline{\overline{\overline{L}}} \uparrow \overline{\overline{\overline{D}}} \uparrow \overline{\overline{\overline{Q}}} \uparrow B \\ \vdots \end{array} & \text{(A.2.12.5),}
\end{array}$$

$$\begin{array}{ccccccc}
\begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \left\{ R \uparrow \right. \\ \left. \uparrow \equiv \bar{G} \uparrow \right. \\ \left. \uparrow \right\} \bar{O} \uparrow \left. \right\} \bar{U} \uparrow \left. \right\} \bar{V} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \left\{ \bar{W} \uparrow \right. \\ \left. \uparrow \right\} \bar{J} \uparrow \left. \right\} \bar{H} \uparrow \left. \right\} \bar{F} \uparrow \left. \right\} \bar{A} \uparrow \left. \right\} \bar{L} \uparrow \left. \right\} \bar{D} \uparrow \left. \right\} \bar{Q}_1 \uparrow \left. \right\} \bar{B} \\ \vdots \end{array} & + & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \left\{ R \uparrow \right. \\ \left. \uparrow \equiv \bar{G} \uparrow \right. \\ \left. \uparrow \right\} \bar{O} \uparrow \left. \right\} \bar{U} \uparrow \left. \right\} \bar{V} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \left\{ \bar{W} \uparrow \right. \\ \left. \uparrow \right\} \bar{J} \uparrow \left. \right\} \bar{H} \uparrow \left. \right\} \bar{F} \uparrow \left. \right\} \bar{A} \uparrow \left. \right\} \bar{L} \uparrow \left. \right\} \bar{D} \uparrow \left. \right\} \bar{Q}_2 \uparrow \left. \right\} \bar{B} \\ \vdots \end{array} & = & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \bar{K} \uparrow \left\{ R \uparrow \right. \\ \left. \uparrow \equiv \bar{G} \uparrow \right. \\ \left. \uparrow \right\} \bar{O} \uparrow \left. \right\} \bar{U} \uparrow \left. \right\} \bar{V} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \left\{ \bar{W} \uparrow \right. \\ \left. \uparrow \right\} \bar{J} \uparrow \left. \right\} \bar{H} \uparrow \left. \right\} \bar{F} \uparrow \left. \right\} \bar{A} \uparrow \left. \right\} \bar{L} \uparrow \left. \right\} \bar{D} \uparrow \left. \right\} \bar{Q}_1 \cup \bar{Q}_2 \uparrow \left. \right\} \bar{B} \\ \vdots \end{array} & \text{(A.2.12.6),}
\end{array}$$

$$\begin{array}{ccccccc}
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \{O\} & \uparrow & \{U\} & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & & \\
\vdots & \{W\} & \uparrow & \{J\} & \uparrow & \{H\} & \uparrow & \equiv & F_1 & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \{D\} & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & + & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \{O\} & \uparrow & \{U\} & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \{W\} & \uparrow & \{J\} & \uparrow & \{H\} & \uparrow & \equiv & F_2 & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \{D\} & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & = & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \{O\} & \uparrow & \{U\} & \uparrow & \equiv & V & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \{W\} & \uparrow & \{J\} & \uparrow & \{H\} & \uparrow & \equiv & F_1 \cup F_2 & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \{D\} & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & \text{(A.2.12.7),} & & & & & & & & & &
\end{array}$$

$$\begin{array}{ccccccc}
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S}_1 & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \{O\} & \uparrow & \{U\} & \uparrow & \{V\} & \vdots \\
& & & & & & & & & & & \text{FUprt} & & & & & & & & & \\
\vdots & \{W\} & \uparrow & \{J\} & \uparrow & \{H\} & \uparrow & \equiv & F & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \{D\} & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & & + & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S}_2 & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \{O\} & \uparrow & \{U\} & \uparrow & \{V\} & \vdots \\
& & & & & & & & & & & \text{FUprt} & & & & & & & & & \\
\vdots & \{W\} & \uparrow & \{J\} & \uparrow & \{H\} & \uparrow & \equiv & F & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \{D\} & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & & = & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S}_1 \cup \bar{S}_2 & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \{O\} & \uparrow & \{U\} & \uparrow & \{V\} & \vdots \\
& & & & & & & & & & & \text{FUprt} & & & & & & & & & \\
\vdots & \{W\} & \uparrow & \{J\} & \uparrow & \{H\} & \uparrow & \equiv & F & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \{D\} & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & & \text{FUprt} & & & & & & & & & \\
& & & & & & & & & & & \text{(A.2.12.9),} & & & & & & & & &
\end{array}$$

$$\begin{array}{ccccccc}
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \overbrace{R} & \uparrow & \equiv & G & \uparrow & \overbrace{O_1} & \uparrow & \overbrace{U} & \uparrow & \overbrace{V} & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \overbrace{W} & \uparrow & \overbrace{J} & \uparrow & \overbrace{H} & \uparrow & \equiv & F & \uparrow & \overbrace{A} & \uparrow & \equiv & L & \uparrow & \overbrace{D} & \uparrow & \overbrace{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & + & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \overbrace{R} & \uparrow & \equiv & G & \uparrow & \overbrace{O_2} & \uparrow & \overbrace{U} & \uparrow & \overbrace{V} & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \overbrace{W} & \uparrow & \overbrace{J} & \uparrow & \overbrace{H} & \uparrow & \equiv & F & \uparrow & \overbrace{A} & \uparrow & \equiv & L & \uparrow & \overbrace{D} & \uparrow & \overbrace{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & = & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \overbrace{R} & \uparrow & \equiv & G & \uparrow & \overbrace{O_1 \cup O_2} & \uparrow & \overbrace{U} & \uparrow & \overbrace{V} & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \overbrace{W} & \uparrow & \overbrace{J} & \uparrow & \overbrace{H} & \uparrow & \equiv & F & \uparrow & \overbrace{A} & \uparrow & \equiv & L & \uparrow & \overbrace{D} & \uparrow & \overbrace{Q} & \uparrow & B & \vdots
\end{array} \quad (\text{A.2.12.10}).$$

$$\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\text{FUprt}
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A_1} \uparrow \equiv L \uparrow \overbrace{D} \uparrow \overline{Q} \uparrow B \\
\vdots
\end{array}
+
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\text{FUprt}
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A_2} \uparrow \equiv L \uparrow \overbrace{D} \uparrow \overline{Q} \uparrow B \\
\vdots
\end{array}
=
\begin{array}{c}
\vdots \\
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\
\vdots
\end{array}
\text{FUprt}
\begin{array}{c}
\vdots \\
\overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A_1 \cup A_2} \uparrow \equiv L \uparrow \overbrace{D} \uparrow \overline{Q} \uparrow B \\
\vdots
\end{array}
\text{(A.2.12.10.1),}$$

$$\begin{array}{ccccccc}
\begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \overline{D_1} \uparrow \overline{Q} \uparrow B \\ \vdots \end{array} & + & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\ \vdots \end{array} & \text{FUprt} & \begin{array}{c} \vdots \\ \overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \overline{D_2} \uparrow \overline{Q} \uparrow B \\ \vdots \end{array} \\
& & & & \text{FUprt} & & \begin{array}{c} \vdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \uparrow \equiv G \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overbrace{V} \\ \vdots \end{array} \\
& & & & = & \text{FUprt} & \begin{array}{c} \vdots \\ \overbrace{W} \uparrow \overbrace{J} \uparrow \overbrace{H} \uparrow \equiv F \uparrow \overbrace{A} \uparrow \equiv L \uparrow \overline{D_1} \cup \overline{D_2} \uparrow \overline{Q} \uparrow B \\ \vdots \end{array}
\end{array} \quad (\text{A.2.12.10.2}),$$

$$\begin{array}{ccccccc}
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \overbrace{O} & \uparrow & \overbrace{U} & \uparrow & \overbrace{V} & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \overbrace{W} & \uparrow & \overbrace{J_1} & \uparrow & \overbrace{H} & \uparrow & \equiv & F & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & + & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \overbrace{O} & \uparrow & \overbrace{U} & \uparrow & \overbrace{V} & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \overbrace{W} & \uparrow & \overbrace{J_2} & \uparrow & \overbrace{H} & \uparrow & \equiv & F & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \bar{Q} & \uparrow & B & \vdots \\
& & & & & & & & & & = & & & & & & & & & & \\
\vdots & C & \uparrow & \bar{P} & \uparrow & \bar{S} & \uparrow & \equiv & K & \uparrow & \{R\} & \uparrow & \equiv & G & \uparrow & \overbrace{O} & \uparrow & \overbrace{U} & \uparrow & \overbrace{V} & \vdots \\
& & & & & & & & & & \text{FUprt} & & & & & & & & & & \\
\vdots & \overbrace{W} & \uparrow & \overbrace{J_1} \cup \overbrace{J_2} & \uparrow & \overbrace{H} & \uparrow & \equiv & F & \uparrow & \{A\} & \uparrow & \equiv & L & \uparrow & \equiv & D & \uparrow & \bar{Q} & \uparrow & B & \vdots
\end{array}
\tag{A.2.12.10.3},$$

$$\begin{array}{ccccccc}
\begin{array}{c} \dots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R \uparrow \equiv G \uparrow \} \} O \uparrow \{ \} U \uparrow \{ \} V \uparrow \{ \} \\ \dots \end{array} & \text{FUprt} & \begin{array}{c} \dots \\ \{ \} W_1 \uparrow \{ \} J \uparrow \{ \} H \uparrow \{ \} F \uparrow \{ \} A \uparrow \{ \} L \uparrow \{ \} D \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & + & \text{FUprt} & \begin{array}{c} \dots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R \uparrow \equiv G \uparrow \} \} O \uparrow \{ \} U \uparrow \{ \} V \uparrow \{ \} \\ \dots \end{array} & = & \text{FUprt} & \begin{array}{c} \dots \\ \{ \} W_2 \uparrow \{ \} J \uparrow \{ \} H \uparrow \{ \} F \uparrow \{ \} A \uparrow \{ \} L \uparrow \{ \} D \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & = & \text{FUprt} & \begin{array}{c} \dots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \{R \uparrow \equiv G \uparrow \} \} O \uparrow \{ \} U \uparrow \{ \} V \uparrow \{ \} \\ \dots \end{array} & \text{FUprt} & \begin{array}{c} \dots \\ \{ \} W_1 \cup \{ \} W_2 \uparrow \{ \} J \uparrow \{ \} H \uparrow \{ \} F \uparrow \{ \} A \uparrow \{ \} L \uparrow \{ \} D \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & (A.2.12.10.4),
\end{array}$$

$$\begin{array}{ccccccc}
\begin{array}{c} \cdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \\ K_1 \uparrow \left\{ R \uparrow \equiv \right. \\ G \uparrow \left. \begin{array}{c} \text{\textcircled{O}} \uparrow \text{\textcircled{U}} \uparrow \equiv \\ V \end{array} \right. \\ \cdots \end{array} & \text{FUprt} & \begin{array}{c} \cdots \\ \text{\textcircled{W}} \uparrow \text{\textcircled{J}} \uparrow \text{\textcircled{H}} \uparrow \equiv \\ F \uparrow \left\{ A \uparrow \equiv \right. \\ L \uparrow \text{\textcircled{D}} \uparrow \bar{Q} \uparrow B \\ \cdots \end{array} & + & \begin{array}{c} \cdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \\ K_2 \uparrow \left\{ R \uparrow \equiv \right. \\ G \uparrow \left. \begin{array}{c} \text{\textcircled{O}} \uparrow \text{\textcircled{U}} \uparrow \equiv \\ V \end{array} \right. \\ \cdots \end{array} & \text{FUprt} & = & \begin{array}{c} \cdots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv \\ \text{\textcircled{K}_1} \cup \text{\textcircled{K}_2} \uparrow \left\{ R \uparrow \equiv \right. \\ G \uparrow \left. \begin{array}{c} \text{\textcircled{O}} \uparrow \text{\textcircled{U}} \uparrow \equiv \\ V \end{array} \right. \\ \cdots \end{array} & \text{FUprt} & \begin{array}{c} \cdots \\ \text{\textcircled{W}} \uparrow \text{\textcircled{J}} \uparrow \text{\textcircled{H}} \uparrow \equiv \\ F \uparrow \left\{ A \uparrow \equiv \right. \\ L \uparrow \text{\textcircled{D}} \uparrow \bar{Q} \uparrow B \\ \cdots \end{array} & \text{(A.2.12.10.7),}
\end{array}$$

$$\begin{array}{cccccc}
\begin{array}{c} \dots \\ C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \overbrace{R} \\ \uparrow \equiv G \uparrow \breve{O} \uparrow \breve{U} \uparrow \breve{V} \\ \dots \end{array} & \text{FUprt} & \begin{array}{c} \dots \\ \breve{W} \uparrow \breve{J} \uparrow \breve{H} \uparrow \equiv K \uparrow \overbrace{F} \\ \uparrow \breve{A} \uparrow \equiv L_1 \uparrow \bar{D} \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & + & \text{FUprt} & \begin{array}{c} \dots \\ \breve{W} \uparrow \breve{J} \uparrow \breve{H} \uparrow \equiv K \uparrow \overbrace{R} \\ \uparrow \breve{A} \uparrow \equiv L_2 \uparrow \bar{D} \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & = & \text{FUprt} & \begin{array}{c} \dots \\ \breve{W} \uparrow \breve{J} \uparrow \breve{H} \uparrow \equiv K \uparrow \overbrace{F} \\ \uparrow \breve{A} \uparrow \equiv L_1 \cup L_2 \uparrow \bar{D} \uparrow \bar{Q} \uparrow B \\ \dots \end{array} & \text{(A.2.12.10.8).}
\end{array}$$

We consider the following self-type FUprt-structure, paradoxical self-type FUprt-structure (paself-type FUprt-structure) of the first type:

$$\begin{array}{ccc}
\begin{array}{c}
\vdots \\
Q \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{S} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\{R\} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
\breve{O} \\
\uparrow \\
\breve{U} \\
\uparrow \\
\equiv \\
Q \\
\vdots
\end{array}
&
\begin{array}{c}
\text{FUprt} \\
\uparrow \\
\equiv \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\bar{Q} \\
\uparrow \\
Q \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\equiv \\
Q \\
\uparrow \\
\equiv \\
J \\
\uparrow \\
\equiv \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\equiv \\
A \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\equiv \\
D \\
\uparrow \\
\bar{Q} \\
\uparrow \\
Q \\
\vdots
\end{array}
\end{array}
\tag{A.2.14},$$

denote $FU_2 f A; Q$.

denote $FU_3 fH, F, A; Q; B$.

denote $FU_4 f A; Q$.

denote $FU_5 f A; Q; a, a \subset A,$

$$\begin{array}{ccc}
 \vdots & & \vdots \\
 C & \uparrow & \overline{\overline{\overline{W}}} \\
 \uparrow & & \uparrow \\
 \overline{Q} & \uparrow & \overline{\overline{J}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{Q}} & \uparrow & \overline{\overline{H}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{K}}} & \uparrow & \overline{\overline{\overline{F}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{R}}} & \text{FUprt} & \overline{\overline{\overline{A}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{G}}} & & \overline{\overline{\overline{L}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{O}}} & & \overline{\overline{\overline{Q}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{U}}} & & \overline{\overline{\overline{Q}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{V}}} & & \overline{\overline{\overline{B}}} \\
 \vdots & & \vdots
 \end{array}
 \quad (A.2.16.2),$$

denote $FU_6fa;Q;A, a \subset A,$

$$\begin{array}{c}
 \vdots \\
 \{\!\!\{\!\!\overline{\overline{W}}\!\!\} \\
 \uparrow \\
 \{\!\!\overline{\overline{J}}\!\!\} \\
 \uparrow \\
 \{\!\!\overline{\overline{H}}\!\!\} \\
 \uparrow \\
 \overline{\overline{\overline{F}}} \\
 \uparrow \\
 \overline{\overline{\overline{A}}} \\
 \uparrow \\
 \overline{\overline{\overline{L}}} \\
 \uparrow \\
 \overline{\overline{\overline{D}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q}}} \\
 \uparrow \\
 B \\
 \vdots
 \end{array}
 \quad (A.2.18)$$

where $\overline{\overline{\overline{W}}}$ -*parelf* levels of fuzzy W, $\overline{\overline{\overline{J}}}$ – singelf level of fuzzy J, $\overline{\overline{\overline{H}}}$ - paradoxical upper level of fuzzy H, $\overline{\overline{\overline{F}}}$ - paradoxical average level of fuzzy F, $\overline{\overline{\overline{A}}}$ - upper level of fuzzy A, $\overline{\overline{\overline{Q}}}$ - middle₁ level of fuzzy Q, B goes to the middle₀ level of Q - $\overline{\overline{\overline{Q}}}$, $\overline{\overline{\overline{Q}}}$ goes to the middle₁ level $\overline{\overline{\overline{D}}}$, $\overline{\overline{\overline{D}}}$ goes to the middle₂ level fuzzy $\overline{\overline{\overline{L}}}$, $\overline{\overline{\overline{L}}}$ goes to the upper level of A - $\overline{\overline{\overline{A}}}$, $\overline{\overline{\overline{A}}}$ goes to the paradoxical middle level of F - $\overline{\overline{\overline{F}}}$, $\overline{\overline{\overline{F}}}$ goes to the paradoxical upper level of H - $\overline{\overline{\overline{H}}}$, $\overline{\overline{\overline{H}}}$ goes to the singelf levels of J - $\overline{\overline{\overline{J}}}$, $\overline{\overline{\overline{J}}}$ goes to the *parelf* levels of W - $\overline{\overline{\overline{W}}}$ etc simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
 \vdots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J}} \\
 \uparrow \\
 \overline{\overline{H}} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \text{Urt} \uparrow \quad (\text{A.2.19}) \\
 \overline{\overline{A}} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{\overline{Q}} \\
 \uparrow \\
 B \\
 \vdots
 \end{array}$$

or

$$\begin{array}{c}
\vdots \\
C \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{\bar{S}} \\
\uparrow \\
\equiv \\
\bar{K} \\
\uparrow \\
\left. \bar{R} \right\} \\
\uparrow \quad \text{FUprt (A.2.110)} \\
\equiv \\
G \\
\uparrow \\
\bar{O} \\
\uparrow \\
\bar{U} \\
\uparrow \\
\equiv \\
V \\
\vdots
\end{array}$$

where $\bar{\bar{V}}$ - *parelf* level of fuzzy V, $\bar{\bar{U}}$ - singelf- level of fuzzy U, $\bar{\bar{O}}$ - paradoxical upper level of fuzzy O, $\bar{\bar{G}}$ - paradoxical average level of fuzzy G, $\bar{\bar{R}}$ - upper level of fuzzy R, $\bar{P}$ - middle₁ level of fuzzy P, $\bar{\bar{V}}$ goes to the $\bar{\bar{U}}$, $\bar{\bar{U}}$ goes to the $\bar{\bar{O}}$, $\bar{\bar{O}}$ goes to the paradoxical middle level of G - $\bar{\bar{G}}$, $\bar{\bar{G}}$ goes to the upper level of R - $\bar{\bar{R}}$, $\bar{\bar{R}}$ goes to the middle₂ level fuzzy $\bar{\bar{K}}$, $\bar{\bar{K}}$ goes to the middle₁ level fuzzy $\bar{\bar{S}}$, $\bar{\bar{S}}$ goes to the middle₀ level of P - $\bar{P}$, $\bar{P}$ goes to the lower level of fuzzy C etc simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
 \dots \\
 C \\
 \uparrow \\
 \bar{P} \\
 \uparrow \\
 \bar{S} \\
 \uparrow \\
 \equiv \\
 K \\
 \uparrow \\
 \left. R \right\} \\
 \uparrow \text{FUrt (A.2.111)} \\
 \equiv \\
 G \\
 \uparrow \\
 \left. O \right\} \\
 \uparrow \\
 \left. U \right\} \\
 \uparrow \\
 \equiv \\
 \left. V \right\} \\
 \dots
 \end{array}$$

Definition 1,2. The fuzzy dynamic operator (A.2.18) we shall call FUprt – element of the second type, (A.2.19) we shall call FUrt – element of the second type.

It's allowed to add FUprt – elements of the second type:

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H_1}} \\
\uparrow \\
\overline{\overline{F}} \\
\text{FUprt} \uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
+ \text{FUprt}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H_2}} \\
\uparrow \\
\overline{\overline{F}} \\
\text{FUprt} \uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
= \text{FUprt}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H_1}} \cup \overline{\overline{H_2}} \\
\uparrow \\
\overline{\overline{F}} \\
\text{FUprt} \uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\quad (\text{A.2.112}),$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\text{FUprt} \uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B_1 \\
\vdots
\end{array}
+ \text{FUprt}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B_2 \\
\vdots
\end{array}
= \text{FUprt}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B_1 \cup B_2 \\
\vdots
\end{array}
\quad (\text{A.2.113}),$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{\overline{W}}} \\
\uparrow \\
\overline{\overline{\overline{J}}} \\
\uparrow \\
\overline{\overline{\overline{H}}} \\
\uparrow \\
\overline{\overline{\overline{F}}} \\
\text{FUprt} \uparrow \overline{\overline{\overline{A}}} + \text{FUprt} \uparrow \overline{\overline{\overline{A}}} = \text{FUprt} \uparrow \overline{\overline{\overline{A}}} \\
\uparrow \\
\overline{\overline{\overline{L}}} \\
\uparrow \\
\overline{\overline{\overline{D}}} \\
\uparrow \\
\overline{\overline{Q_1}} \quad \overline{\overline{Q_2}} \quad \overline{\overline{Q_1 \cup Q_2}} \\
\uparrow \\
B \\
\vdots
\end{array}
\tag{A.2.113.1},$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F_1}} \\
\text{FUprt} \uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
+ \text{FUprt} \begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F_2}} \\
\uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
= \text{FUprt} \begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F_1 \cup F_2}} \\
\uparrow \overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\quad (\text{A.2.113.2}),$$

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$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D_1}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{FUprt} +
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D_2}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{FUprt} =
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D_1}} \cup \overline{\overline{D_2}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{FUprt} \quad (\text{A. 2.113.4}),$$

$$\begin{array}{c}
 \dots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{J_1} \\
 \uparrow \\
 \overline{H} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \uparrow \\
 \overline{A} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 +
 \begin{array}{c}
 \dots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{J_2} \\
 \uparrow \\
 \overline{H} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \uparrow \\
 \overline{A} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 =
 \begin{array}{c}
 \dots \\
 \overline{\overline{W}} \\
 \uparrow \\
 \overline{\overline{J_1} \cup J_2} \\
 \uparrow \\
 \overline{H} \\
 \uparrow \\
 \overline{\overline{F}} \\
 \uparrow \\
 \overline{A} \\
 \uparrow \\
 \overline{\overline{L}} \\
 \uparrow \\
 \overline{\overline{D}} \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 B \\
 \dots
 \end{array}
 \quad (\text{A. 2.113.5}),$$

$$\begin{array}{c}
\text{FUprt} \quad \begin{array}{c} \dots \\ \overline{\overline{\overline{W_1}}} \\ \uparrow \\ \overline{\overline{\overline{J}}} \\ \uparrow \\ \overline{\overline{\overline{H}}} \\ \uparrow \\ \overline{\overline{\overline{F}}} \\ \uparrow \\ \overline{\overline{\overline{A}}} \\ \uparrow \\ \overline{\overline{\overline{L}}} \\ \uparrow \\ \overline{\overline{\overline{D}}} \\ \uparrow \\ \overline{\overline{\overline{Q}}} \\ \uparrow \\ B \\ \dots \end{array} + \text{FUprt} \quad \begin{array}{c} \dots \\ \overline{\overline{\overline{W_2}}} \\ \uparrow \\ \overline{\overline{\overline{J}}} \\ \uparrow \\ \overline{\overline{\overline{H}}} \\ \uparrow \\ \overline{\overline{\overline{F}}} \\ \uparrow \\ \overline{\overline{\overline{A}}} \\ \uparrow \\ \overline{\overline{\overline{L}}} \\ \uparrow \\ \overline{\overline{\overline{D}}} \\ \uparrow \\ \overline{\overline{\overline{Q}}} \\ \uparrow \\ B \\ \dots \end{array} = \text{FUprt} \quad \begin{array}{c} \dots \\ \overline{\overline{\overline{W_1 \cup W_2}}} \\ \uparrow \\ \overline{\overline{\overline{J}}} \\ \uparrow \\ \overline{\overline{\overline{H}}} \\ \uparrow \\ \overline{\overline{\overline{F}}} \\ \uparrow \\ \overline{\overline{\overline{A}}} \\ \uparrow \\ \overline{\overline{\overline{L}}} \\ \uparrow \\ \overline{\overline{\overline{D}}} \\ \uparrow \\ \overline{\overline{\overline{Q}}} \\ \uparrow \\ B \\ \dots \end{array} \quad (\text{A. 2.113.6}),
\end{array}$$

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L_1}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{FUprt}
+
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L_2}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{FUprt}
=
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L_1 \cup L_2}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{\overline{Q}} \\
\uparrow \\
B \\
\vdots
\end{array}
\text{FUprt} \quad (\text{A. 2.113.7}).$$

We consider the following self-type FUprt-structures of the second type:

$$\begin{array}{c}
 \vdots \\
 \parallel \\
 \} \\
 A \\
 \uparrow \\
 \parallel \\
 \} \\
 A \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 \parallel \\
 Q \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 \parallel \\
 Q \\
 \uparrow \\
 \parallel \\
 Q \\
 \uparrow \\
 \overline{Q} \\
 \uparrow \\
 a \\
 \vdots
 \end{array}
 \text{FUprt} \quad (A.2.114.1),$$

denote $FU_7 f A; Q; a, a \subset A,$

$$\begin{array}{c}
 \vdots \\
 || \\
 \} \\
 A \\
 \uparrow \\
 | \\
 \} \\
 A \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 || \\
 A \\
 \uparrow \\
 \} \\
 A \\
 \uparrow \\
 || \\
 Q \\
 \uparrow \\
 || \\
 Q \\
 \uparrow \\
 | \\
 Q \\
 \uparrow \\
 Q \\
 \vdots
 \end{array}
 \quad (A.2.116),$$

FUprt

and any other possible options of self for (A.2.18) etc.

Definition A.2.13. The fuzzy dynamic operator (A.2.110) we shall call tprFU – element, (A.2.111) we shall call trFU – element.

It's allowed to add tprFU – elements:

$$\begin{array}{ccc}
\begin{array}{c} \dots \\ \overline{C_1} \\ \uparrow \\ \overline{P} \\ \uparrow \\ \overline{S} \\ \uparrow \\ \overline{\overline{K}} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \overline{\overline{G}} \\ \uparrow \\ \overline{\overline{O}} \\ \uparrow \\ \overline{\overline{U}} \\ \uparrow \\ \overline{\overline{V}} \\ \dots \end{array} & \text{FUprt} + & \begin{array}{c} \dots \\ \overline{C_2} \\ \uparrow \\ \overline{P} \\ \uparrow \\ \overline{S} \\ \uparrow \\ \overline{\overline{K}} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \overline{\overline{G}} \\ \uparrow \\ \overline{\overline{O}} \\ \uparrow \\ \overline{\overline{U}} \\ \uparrow \\ \overline{\overline{V}} \\ \dots \end{array} \\
& & \text{FUprt} = & \begin{array}{c} C_1 \cup C_2 \\ \uparrow \\ \overline{P} \\ \uparrow \\ \overline{S} \\ \uparrow \\ \overline{\overline{K}} \\ \uparrow \\ \overbrace{R} \\ \uparrow \\ \overline{\overline{G}} \\ \uparrow \\ \overline{\overline{O}} \\ \uparrow \\ \overline{\overline{U}} \\ \uparrow \\ \overline{\overline{V}} \\ \dots \end{array} \text{FUprt (A.2.117),}
\end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \overline{\overline{K}} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overbrace{O_1} \\
 \uparrow \\
 \overline{\overline{U}} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{FUprt} + \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \overline{\overline{K}} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overbrace{O_2} \\
 \uparrow \\
 \overline{\overline{U}} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 &
 \text{FUprt} = \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \overline{\overline{K}} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{\overline{G}} \\
 \uparrow \\
 \overbrace{O_1} \cup \overbrace{O_2} \\
 \uparrow \\
 \overline{\overline{U}} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \dots
 \end{array}
 \text{FUprt (A.2.117.1),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \\
 \uparrow \\
 \overline{P_1} \\
 \uparrow \\
 \overline{S} \\
 \uparrow \\
 \overline{K} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{G} \\
 \uparrow \\
 \overline{O} \\
 \uparrow \\
 \overline{U} \\
 \uparrow \\
 \overline{V} \\
 \dots
 \end{array}
 &
 \text{FUprt} +
 &
 \begin{array}{c}
 \dots \\
 \overline{C} \\
 \uparrow \\
 \overline{P_2} \\
 \uparrow \\
 \overline{S} \\
 \uparrow \\
 \overline{K} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{G} \\
 \uparrow \\
 \overline{O} \\
 \uparrow \\
 \overline{U} \\
 \uparrow \\
 \overline{V} \\
 \dots
 \end{array}
 &
 \text{FUprt} =
 &
 \begin{array}{c}
 \dots \\
 \overline{C} \\
 \uparrow \\
 \overline{(P_1 \cup P_2)} \\
 \uparrow \\
 \overline{S} \\
 \uparrow \\
 \overline{K} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{G} \\
 \uparrow \\
 \overline{O} \\
 \uparrow \\
 \overline{U} \\
 \uparrow \\
 \overline{V} \\
 \dots
 \end{array}
 &
 \text{FUprt (A.2.117.2),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \overline{\overline{K}} \uparrow \\
 \overline{K} \uparrow \\
 \overbrace{R_1} \uparrow \\
 \overline{\overline{G}} \uparrow \\
 \overline{O} \uparrow \\
 \overline{\overline{U}} \uparrow \\
 \overline{\overline{V}} \uparrow \\
 \dots
 \end{array}
 &
 \text{FUprt} +
 &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \overline{\overline{K}} \uparrow \\
 \overline{K} \uparrow \\
 \overbrace{R_2} \uparrow \\
 \overline{\overline{G}} \uparrow \\
 \overline{O} \uparrow \\
 \overline{\overline{U}} \uparrow \\
 \overline{\overline{V}} \uparrow \\
 \dots
 \end{array}
 &
 \text{FUprt} =
 &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \overline{\overline{K}} \uparrow \\
 \overline{K} \uparrow \\
 \overbrace{\overline{R_1} \cup \overline{R_2}} \uparrow \\
 \overline{\overline{G}} \uparrow \\
 \overline{O} \uparrow \\
 \overline{\overline{U}} \uparrow \\
 \overline{\overline{V}} \uparrow \\
 \dots
 \end{array}
 &
 \text{FUprt (A.2.117.3),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \equiv \\
 \overline{K} \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 \overline{G_1} \uparrow \\
 \overbrace{O} \uparrow \\
 \overline{\overbrace{U}} \uparrow \\
 \equiv \\
 \overbrace{V} \\
 \dots
 \end{array}
 &
 \text{FUprt} + \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \equiv \\
 \overline{K} \uparrow \\
 \overbrace{R} \uparrow \\
 \equiv \\
 \overline{G_2} \uparrow \\
 \overbrace{O} \uparrow \\
 \overline{\overbrace{U}} \uparrow \\
 \equiv \\
 \overbrace{V} \\
 \dots
 \end{array}
 &
 \text{FUprt} = \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \equiv \\
 \overline{K} \uparrow \\
 \overbrace{R} \uparrow \\
 \overbrace{G_1 \cup G_2} \uparrow \\
 \overbrace{O} \uparrow \\
 \overline{\overbrace{U}} \uparrow \\
 \equiv \\
 \overbrace{V} \\
 \dots
 \end{array}
 \text{FUprt (A.2.117.4),}
 \end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \cdots \\
 \bar{C} \uparrow \bar{P} \uparrow \overline{\overline{S_1}} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overline{\overline{V}} \\
 \cdots
 \end{array}
 &
 \text{FUprt} + \quad
 \begin{array}{c}
 \cdots \\
 \bar{C} \uparrow \bar{P} \uparrow \overline{\overline{S_2}} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overline{\overline{V}} \\
 \cdots
 \end{array}
 &
 \text{FUprt} = \quad
 \begin{array}{c}
 \cdots \\
 \bar{C} \uparrow \bar{P} \uparrow \overline{\overline{S_1}} \cup \overline{\overline{S_2}} \uparrow \overline{\overline{K}} \uparrow \overbrace{R} \uparrow \overline{\overline{G}} \uparrow \overbrace{O} \uparrow \overbrace{U} \uparrow \overline{\overline{V}} \\
 \cdots
 \end{array}
 \end{array}
 \text{FUprt(A.2.117.5),}$$

$$\begin{array}{c}
\cdots \\
\overline{C} \uparrow \\
\overline{P} \uparrow \\
\overline{S} \uparrow \\
\equiv \\
\overline{K} \uparrow \\
\overbrace{R} \uparrow \\
\text{FUprt} + \\
\equiv \\
\overline{G} \uparrow \\
\overbrace{O} \uparrow \\
\overbrace{u_1} \uparrow \\
\equiv \\
\overline{V} \uparrow \\
\cdots
\end{array}
+
\begin{array}{c}
\cdots \\
\overline{C} \uparrow \\
\overline{P} \uparrow \\
\overline{S} \uparrow \\
\equiv \\
\overline{K} \uparrow \\
\overbrace{R} \uparrow \\
\text{FUprt} = \\
\equiv \\
\overline{G} \uparrow \\
\overbrace{O} \uparrow \\
\overbrace{u_2} \uparrow \\
\equiv \\
\overline{V} \uparrow \\
\cdots
\end{array}
=
\begin{array}{c}
\cdots \\
\overline{C} \uparrow \\
\overline{P} \uparrow \\
\overline{S} \uparrow \\
\equiv \\
\overline{K} \uparrow \\
\overbrace{R} \uparrow \\
\text{FUprt (A.2.117.6),} \\
\equiv \\
\overline{G} \uparrow \\
\overbrace{O} \uparrow \\
\overbrace{u_1 \cup u_2} \uparrow \\
\equiv \\
\overline{V} \uparrow \\
\cdots
\end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \equiv \\
 K_1 \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \equiv \\
 \overline{G} \\
 \uparrow \\
 \overbrace{O} \\
 \uparrow \\
 \overline{\overbrace{U}} \\
 \uparrow \\
 \equiv \\
 \overbrace{V} \\
 \dots
 \end{array}
 &
 \text{FUprt} +
 &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \equiv \\
 K_2 \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \equiv \\
 \overline{G} \\
 \uparrow \\
 \overbrace{O} \\
 \uparrow \\
 \overline{\overbrace{U}} \\
 \uparrow \\
 \equiv \\
 \overbrace{V} \\
 \dots
 \end{array}
 &
 \text{FUprt} =
 &
 \begin{array}{c}
 \dots \\
 \overline{C} \uparrow \\
 \overline{P} \uparrow \\
 \overline{S} \uparrow \\
 \equiv \\
 K_1 \cup K_2 \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \equiv \\
 \overline{G} \\
 \uparrow \\
 \overbrace{O} \\
 \uparrow \\
 \overline{\overbrace{U}} \\
 \uparrow \\
 \equiv \\
 \overbrace{V} \\
 \dots
 \end{array}
 &
 \text{FUprt (A.2.117.7)}.
 \end{array}$$

$$\begin{array}{c}
\cdots \\
\bar{C} \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{S} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\overbrace{R} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{U} \\
\uparrow \\
\equiv \\
V_1 \\
\cdots
\end{array}
\text{FUprt} +
\begin{array}{c}
\cdots \\
\bar{C} \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{S} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\overbrace{R} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{U} \\
\uparrow \\
\equiv \\
V_2 \\
\cdots
\end{array}
\text{FUprt} =
\begin{array}{c}
\cdots \\
\bar{C} \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{S} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\overbrace{R} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{U} \\
\uparrow \\
\equiv \\
V_1 \cup V_2 \\
\cdots
\end{array}
\text{FUprt}$$

We consider the following self-type tprFU-structures:

$$\begin{array}{c}
\vdots \\
O \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{\bar{P}} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\left. R \right\} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
O \} \\
\uparrow \\
O \} | \\
\uparrow \\
O \} || \\
\vdots
\end{array}
\text{FUprt (A.2.118),}$$

FUp_{prt} ((A.2.118.1),

denote $FU_9fd;Q;D, d \in D,$

$$\begin{array}{c}
 \dots \\
 P \\
 \uparrow \\
 \overline{P} \\
 \uparrow \\
 \overline{\overline{P}} \\
 \uparrow \\
 \equiv \\
 K \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \equiv \\
 G \\
 \uparrow \\
 \overbrace{O} \\
 \uparrow \\
 \overbrace{u} \\
 \uparrow \\
 \equiv \\
 \overbrace{v} \\
 \dots
 \end{array}
 \text{FUprt (A.2.120),}$$

$$\begin{array}{c}
 P \\
 \uparrow \\
 \overline{P} \\
 \uparrow \\
 \overline{\overline{P}} \\
 \equiv \\
 \overline{P} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \equiv \text{FUprt (A.2.121)} \\
 G \\
 \uparrow \\
 \overbrace{O} \\
 \uparrow \\
 \overbrace{O} \\
 \uparrow \\
 \overline{\overline{V}} \\
 \vdots
 \end{array}$$

$$\begin{array}{c}
 P \\
 \uparrow \\
 \overline{P} \\
 \uparrow \\
 \overline{\overline{R}} \\
 \overline{\overline{R}} \\
 \uparrow \\
 \overbrace{R} \\
 \uparrow \\
 \overline{\overline{\overline{G}}} \text{FUprt (A.2.121.1),} \\
 \uparrow \\
 \overline{\overline{\overline{O}}} \\
 \uparrow \\
 \overline{\overline{\overline{U}}} \\
 \uparrow \\
 \overline{\overline{\overline{V}}} \\
 \dots
 \end{array}$$

denote FU_9f

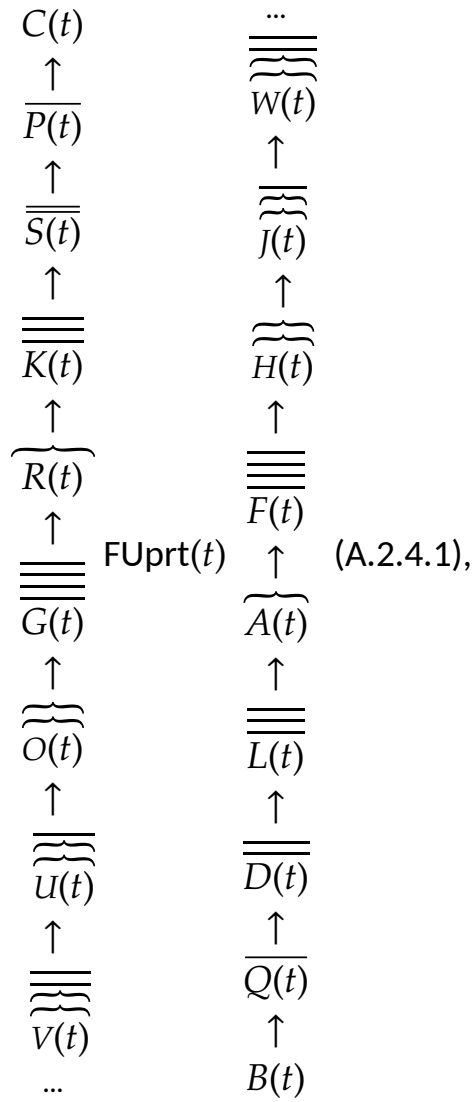
$$\begin{array}{c}
d \\
\uparrow \\
\bar{P} \\
\uparrow \\
\overline{\overline{P}} \\
\equiv \\
\overline{P} \\
\uparrow \\
\overbrace{strD} \\
\uparrow \\
\equiv \text{FUprt (A.2.122),} \\
\overline{P} \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{O} \\
\vdots
\end{array}$$

denote $FU_{10}fD;P,O;d, d \in D$,

and any other possible options of self for (A.2.110) etc.

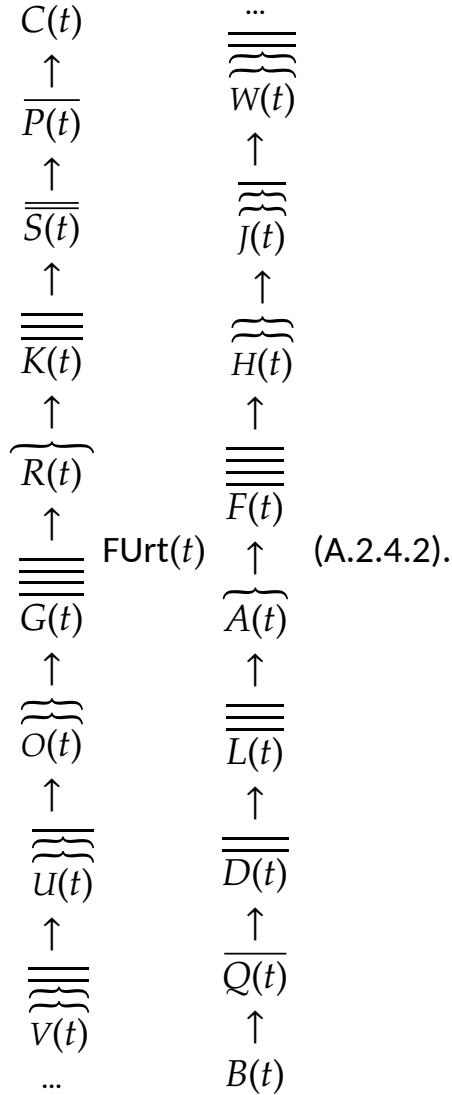
A.4 Dynamic FUprt – elements, self-type dynamic FUprt-structures

We considered FUprt – elements earlier. Here we consider dynamic FUprt – elements. We consider fuzzy dynamic operator whose elements change over time



where $\overline{\overline{W(t)}}$, $\overline{\overline{V(t)}}$ - *parelf* levels of fuzzy $W(t)$ and fuzzy $V(t)$ respectively, $\overline{\overline{J(t)}}$, $\overline{\overline{U(t)}}$ - *singelf* levels of fuzzy $J(t)$ and fuzzy $U(t)$ respectively, $\overline{\overline{H(t)}}$, $\overline{\overline{O(t)}}$ - paradoxical upper levels of fuzzy $H(t)$ and fuzzy $O(t)$ respectively, $\overline{\overline{F(t)}}$, $\overline{\overline{G(t)}}$ - paradoxical average levels of fuzzy $F(t)$ and fuzzy $G(t)$ respectively, $\overline{\overline{A(t)}}$, $\overline{\overline{R(t)}}$ - upper levels of fuzzy $A(t)$ and fuzzy $R(t)$ respectively, $\overline{Q(t)}$, $\overline{P(t)}$ - middle₁ levels of fuzzy $Q(t)$ and fuzzy $P(t)$ respectively, fuzzy $B(t)$ goes to the middle₁ level of $Q(t)$ - $\overline{Q(t)}$, $\overline{Q(t)}$ goes to the middle₂ level $\overline{\overline{D(t)}}$, $\overline{\overline{D(t)}}$ goes to the middle₂ level $\overline{\overline{L(t)}}$, $\overline{\overline{L(t)}}$ goes to the upper level of $A(t)$ - $\overline{\overline{A(t)}}$, $\overline{\overline{A(t)}}$ goes to the paradoxical middle level of $F(t)$ - $\overline{\overline{F(t)}}$, $\overline{\overline{F(t)}}$ goes to the paradoxical upper level of

$\overline{H(t)} - \overline{H(t)}, \overline{H(t)}$ goes to the singelf levels of $\overline{J(t)} - \overline{J(t)}, \overline{J(t)}$ goes to the *parelf* levels of $\overline{W(t)} - \overline{W(t)}, \overline{V(t)}$ goes to the $\overline{U(t)}, \overline{U(t)}$ goes to the $\overline{O(t)}$ goes to the paradoxical middle level of $\overline{G(t)} - \overline{G(t)}, \overline{G(t)}$ goes to the upper level of $\overline{R(t)} - \overline{R(t)}, \overline{R(t)}$ goes to the middle₂ level fuzzy $\overline{K(t)}, \overline{K(t)}$ goes to the middle₁ level fuzzy $\overline{S(t)}, \overline{S(t)}$ goes to the middle₁ level of $\overline{P(t)} - \overline{P(t)}, \overline{P(t)}$ goes to the lower level of $\overline{C(t)}$ simultaneously. The result of this process will be described by the expression



Definition A.2.4.1. The fuzzy dynamic operator (A.2.4.1) we shall call dynamic FUprt – element of the first type, (A.2.4.2) we shall call dynamic FURT – element of the first type.

It's allowed to add dynamic FUprt – elements:

$$\begin{array}{ccccccc}
C(t) & & \dots & & C(t) & & \dots \\
\uparrow & & \overline{\overline{\overline{W(t)}}} & & \uparrow & & \overline{\overline{\overline{W(t)}}} \\
\overline{P(t)} & & \uparrow & & \overline{P(t)} & & \uparrow \\
\uparrow & & \overline{\overline{J(t)}} & & \uparrow & & \overline{\overline{J(t)}} \\
\overline{\overline{S(t)}} & & \uparrow & & \overline{\overline{S(t)}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{H_1(t)}}} & & \uparrow & & \overline{\overline{\overline{H_2(t)}}} \\
\overline{\overline{\overline{K(t)}}} & & \uparrow & & \overline{\overline{\overline{K(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{F(t)}}} & & \uparrow & & \overline{\overline{\overline{F(t)}}} \\
\overline{\overline{\overline{R(t)}}} & & \uparrow & & \overline{\overline{\overline{R(t)}}} & & \uparrow \\
\uparrow & \text{FUprt}(t) & \overline{\overline{\overline{A(t)}}} & + & \uparrow & \text{FUprt}(t) & \overline{\overline{\overline{A(t)}}} \\
\overline{\overline{\overline{G(t)}}} & & \uparrow & & \overline{\overline{\overline{G(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{L(t)}}} & & \uparrow & & \overline{\overline{\overline{L(t)}}} \\
\overline{\overline{\overline{O(t)}}} & & \uparrow & & \overline{\overline{\overline{O(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{D(t)}}} & & \uparrow & & \overline{\overline{\overline{D(t)}}} \\
\overline{\overline{\overline{U(t)}}} & & \uparrow & & \overline{\overline{\overline{U(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{Q(t)}}} & & \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
\overline{\overline{\overline{V(t)}}} & & \uparrow & & \overline{\overline{\overline{V(t)}}} & & \uparrow \\
\dots & & B(t) & & \dots & & B(t)
\end{array}$$

$$\begin{array}{ccc}
 C(t) & \dots & \\
 \uparrow & \underbrace{\dots}_{W(t)} & \\
 \overline{P(t)} & \uparrow & \\
 \uparrow & \underbrace{\dots}_{J(t)} & \\
 \overline{\overline{S(t)}} & \uparrow & \\
 \uparrow & \underbrace{\overbrace{H_1(t)} \cup \overbrace{H_2(t)}} & \\
 \underbrace{\overline{\overline{K(t)}}} & \uparrow & \\
 \uparrow & \underbrace{\overline{\overline{F(t)}}} & \\
 \overbrace{R(t)} & \uparrow & (A.2.4.2.1), \\
 \uparrow & \overbrace{A(t)} & \\
 \overline{\overline{\overline{G(t)}}} & \uparrow & \\
 \overline{\overline{O(t)}} & \underbrace{\overline{\overline{L(t)}}} & \\
 \uparrow & \uparrow & \\
 \overline{\overline{\overline{U(t)}}} & \underbrace{\overline{\overline{D(t)}}} & \\
 \uparrow & \uparrow & \\
 \overline{\overline{\overline{V(t)}}} & \overline{Q(t)} & \\
 \uparrow & \uparrow & \\
 \dots & B(t) &
 \end{array}
 \quad \text{FUprt}(t)$$

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B_1(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B_2(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B_1(t) \cup B_2(t) \end{array} \\
\text{FUprt}(t) & & \text{FUprt}(t) & & \text{FUprt}(t) & &
\end{array}$$

(A.2.4.2.2),

$$\begin{array}{ccccccc}
C_1(t) & & \dots & & C_2(t) & & \dots \\
\uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} \\
\overline{P(t)} & & \uparrow & & \overline{P(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} \\
\overline{S(t)} & & \uparrow & & \overline{S(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} \\
\overline{\overline{K(t)}} & & \uparrow & & \overline{\overline{K(t)}} & & \uparrow \\
\uparrow & & \overline{\overline{F(t)}} & & \uparrow & & \overline{\overline{F(t)}} \\
\overbrace{R(t)} & & \uparrow & & \overbrace{R(t)} & & \uparrow \\
\uparrow & \text{FUprt}(t) & \overbrace{A(t)} & + & \uparrow & \text{FUprt}(t) & \overbrace{A(t)} \\
\overline{\overline{\overline{G(t)}}} & & \uparrow & & \overline{\overline{\overline{G(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{L(t)}}} & & \uparrow & & \overline{\overline{\overline{L(t)}}} \\
\overbrace{O(t)} & & \uparrow & & \overbrace{O(t)} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{D(t)}}} & & \uparrow & & \overline{\overline{\overline{D(t)}}} \\
\overbrace{\overbrace{\overbrace{U(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{U(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{Q(t)}}} & & \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
\overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow \\
\dots & & B(t) & & \dots & & B(t)
\end{array}$$

$$\begin{array}{ccc}
 C_1(t) \cup C_2(t) & & \dots \\
 \uparrow & & \overbrace{\overline{\overline{W(t)}}} \\
 \overline{P(t)} & & \uparrow \\
 \uparrow & & \overbrace{\overline{\overline{J(t)}}} \\
 \overline{\overline{S(t)}} & & \uparrow \\
 \uparrow & & \overbrace{\overline{\overline{H(t)}}} \\
 \overline{\overline{\overline{K(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{F(t)}}} \\
 \overbrace{\overline{R(t)}} & \text{FUprt}(t) & \uparrow \\
 \uparrow & & \overbrace{\overline{A(t)}} \\
 \overline{\overline{\overline{G(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{L(t)}}} \\
 \overbrace{\overline{\overline{O(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{D(t)}}} \\
 \overbrace{\overline{\overline{\overline{U(t)}}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overbrace{\overline{\overline{\overline{V(t)}}}} & & \uparrow \\
 \dots & & B(t)
 \end{array}
 \quad (A.2.4.2.3),$$

$$\begin{array}{cccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R_1(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{\overline{J(t)}}} \\
\uparrow \\
\overbrace{H(t)} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overbrace{A(t)} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
&
+
&
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R_2(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
=
&
\begin{array}{c}
\vdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{\overline{J(t)}}} \\
\uparrow \\
\overbrace{H(t)} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overbrace{A(t)} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
&
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R_1(t) \cup R_2(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{\overline{J(t)}}} \\
\uparrow \\
\overbrace{H(t)} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overbrace{A(t)} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
\end{array}$$

(A.2.4.2.4),

$$\begin{array}{ccccccc}
C(t) & & \dots & & C(t) & & \dots \\
\uparrow & & \overbrace{\overbrace{\overbrace{}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{}}} \\
\overline{P_1(t)} & & W(t) & & \overline{P_1(t)} & & W(t) \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\overline{\overline{S(t)}} & & \overbrace{\overline{\overline{J(t)}}} & & \overline{\overline{S(t)}} & & \overbrace{\overline{\overline{J(t)}}} \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\overline{\overline{\overline{K(t)}}} & & \overbrace{\overline{\overline{\overline{H(t)}}}} & & \overline{\overline{\overline{K(t)}}} & & \overbrace{\overline{\overline{\overline{H(t)}}}} \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\overbrace{\overline{R(t)}} & & \overline{\overline{\overline{F(t)}}} & & \overbrace{\overline{R(t)}} & & \overline{\overline{\overline{F(t)}}} \\
\uparrow & \text{FUprt}(t) & \uparrow & + & \uparrow & \text{FUprt}(t) & \uparrow = \\
\overline{\overline{\overline{G(t)}}} & & \overbrace{\overline{A(t)}} & & \overline{\overline{\overline{G(t)}}} & & \overbrace{\overline{A(t)}} \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\overbrace{\overline{\overline{O(t)}}} & & \overline{\overline{\overline{L(t)}}} & & \overbrace{\overline{\overline{O(t)}}} & & \overline{\overline{\overline{L(t)}}} \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\overbrace{\overline{\overline{\overline{U(t)}}}} & & \overline{\overline{\overline{D(t)}}} & & \overbrace{\overline{\overline{\overline{U(t)}}}} & & \overline{\overline{\overline{D(t)}}} \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\overbrace{\overline{\overline{\overline{V(t)}}}} & & \overline{\overline{\overline{Q(t)}}} & & \overbrace{\overline{\overline{\overline{V(t)}}}} & & \overline{\overline{\overline{Q(t)}}} \\
\uparrow & & \uparrow & & \uparrow & & \uparrow \\
\dots & & B(t) & & \dots & & B(t)
\end{array}$$

$$\begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P_1(t)} \cup \overline{P_2(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overline{\overline{O(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overline{A(t)} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 B(t)
 \end{array}
 \begin{array}{c}
 \text{FUprt}(t) \quad (\text{A.2.4.2.5}),
 \end{array}$$

$$\begin{array}{ccccccc}
C(t) & & \dots & & C(t) & & \dots \\
\uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} \\
\overline{P(t)} & & \uparrow & & \overline{P(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} \\
\overline{\overline{S(t)}} & & \uparrow & & \overline{\overline{S(t)}} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} \\
\overline{\overline{\overline{K(t)}}} & & \uparrow & & \overline{\overline{\overline{K(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{F(t)}}} & & \uparrow & & \overline{\overline{\overline{F(t)}}} \\
\overbrace{R(t)} & & \uparrow & & \overbrace{R(t)} & & \uparrow \\
\uparrow & \text{FUprt}(t) & \overbrace{A(t)} & + & \uparrow & \text{FUprt}(t) & \overbrace{A(t)} \\
\overline{\overline{\overline{G(t)}}} & & \uparrow & & \overline{\overline{\overline{G(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{L(t)}}} & & \uparrow & & \overline{\overline{\overline{L(t)}}} \\
\overbrace{O(t)} & & \uparrow & & \overbrace{O(t)} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{D(t)}}} & & \uparrow & & \overline{\overline{\overline{D(t)}}} \\
\overbrace{\overbrace{\overbrace{U(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{U(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{Q_1(t)}}} & & \uparrow & & \overline{\overline{\overline{Q_2(t)}}} \\
\overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow \\
\dots & & B(t) & & \dots & & B(t)
\end{array}$$

$$\begin{array}{ccc}
 C(t) & & \dots \\
 \uparrow & & \overbrace{\overline{\overline{W(t)}}} \\
 \overline{P(t)} & & \uparrow \overbrace{\overline{\overline{J(t)}}} \\
 \uparrow & & \uparrow \overbrace{\overline{\overline{H(t)}}} \\
 \overline{\overline{S(t)}} & & \uparrow \overbrace{\overline{\overline{F(t)}}} \\
 \uparrow & & \uparrow \overbrace{\overline{\overline{A(t)}}} \\
 \overline{\overline{\overline{K(t)}}} & & \uparrow \overbrace{\overline{\overline{\overline{L(t)}}}} \\
 \uparrow & & \uparrow \overbrace{\overline{\overline{\overline{D(t)}}}} \\
 \overbrace{\overline{\overline{R(t)}}} & \text{FUprt}(t) & \uparrow \overline{\overline{Q_1(t)} \cup \overline{\overline{Q_2(t)}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{G(t)}}} & & B(t) \\
 \uparrow & & \\
 \overbrace{\overline{\overline{O(t)}}} & & \\
 \uparrow & & \\
 \overbrace{\overline{\overline{\overline{U(t)}}}} & & \\
 \uparrow & & \\
 \overline{\overline{\overline{V(t)}}} & & \\
 \uparrow & & \\
 \dots & &
 \end{array}
 \tag{A.2.4.2.6},$$

$$\begin{array}{ccccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\uparrow \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A_1(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
&
+ &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\uparrow \\
\vdots
\end{array}
&
= &
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{S(t)} \\
\uparrow \\
\overline{\overline{K(t)}} \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{G(t)}} \\
\uparrow \\
\overline{O(t)} \\
\uparrow \\
\overline{\overline{U(t)}} \\
\uparrow \\
\overline{\overline{V(t)}} \\
\uparrow \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{W(t)}} \\
\uparrow \\
\overline{\overline{J(t)}} \\
\uparrow \\
\overline{\overline{H(t)}} \\
\uparrow \\
\overline{\overline{F(t)}} \\
\uparrow \\
\overline{A_1(t)} \cup \overline{A_2(t)} \\
\uparrow \\
\overline{\overline{L(t)}} \\
\uparrow \\
\overline{\overline{D(t)}} \\
\uparrow \\
\overline{Q(t)} \\
\uparrow \\
B(t)
\end{array}
\end{array}$$

(A.2.4.2.7),

$$\begin{array}{ccccccc}
C(t) & & \dots & & C(t) & & \dots \\
\uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} \\
\overline{P(t)} & & \uparrow & & \overline{P(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} \\
\overline{\overline{S(t)}} & & \uparrow & & \overline{\overline{S(t)}} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} \\
\overline{\overline{\overline{K(t)}}} & & \uparrow & & \overline{\overline{\overline{K(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{F(t)}}} & & \uparrow & & \overline{\overline{\overline{F(t)}}} \\
\overbrace{R(t)} & & \uparrow & & \overbrace{R(t)} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{A(t)}}} & & \uparrow & & \overline{\overline{\overline{A(t)}}} \\
\overline{\overline{\overline{G_1(t)}}} & \text{FUprt}(t) & & + & \overline{\overline{\overline{G_2(t)}}} & \text{FUprt}(t) & = \\
\uparrow & & \overline{\overline{\overline{L(t)}}} & & \uparrow & & \overline{\overline{\overline{L(t)}}} \\
\overbrace{O(t)} & & \uparrow & & \overbrace{O(t)} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{D(t)}}} & & \uparrow & & \overline{\overline{\overline{D(t)}}} \\
\overbrace{\overbrace{\overbrace{u(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{u(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{Q(t)}}} & & \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
\overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow \\
\dots & & B(t) & & \dots & & B(t)
\end{array}$$

$$\begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)}}} \cup \overline{\overline{\overline{G_2(t)}}} \quad \text{FUprt}(t) \\
 \uparrow \\
 \overline{\overline{\overline{O(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \quad
 \begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}
 \quad (A.2.4.2.8),$$

$$\begin{array}{cccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{K(t)} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{G(t)} \\ \uparrow \\ \overline{O_1(t)} \\ \uparrow \\ \overline{u(t)} \\ \uparrow \\ \overline{V(t)} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{W(t)} \\ \uparrow \\ \overline{J(t)} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{F(t)} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{L(t)} \\ \uparrow \\ \overline{D(t)} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{K(t)} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{G(t)} \\ \uparrow \\ \overline{O_2(t)} \\ \uparrow \\ \overline{u(t)} \\ \uparrow \\ \overline{V(t)} \\ \dots \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{K(t)} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{G(t)} \\ \uparrow \\ \overline{O_1(t) \cup O_2(t)} \\ \uparrow \\ \overline{u(t)} \\ \uparrow \\ \overline{V(t)} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{W(t)} \\ \uparrow \\ \overline{J(t)} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{F(t)} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{L(t)} \\ \uparrow \\ \overline{D(t)} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} \\
\text{FUprt}(t) & & \text{FUprt}(t) & & \text{FUprt}(t) & &
\end{array}$$

(A.2.4.2.9),

$$\begin{array}{ccccccc}
C(t) & & \dots & & C(t) & & \dots \\
\uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{W(t)}}} \\
\overline{P(t)} & & \uparrow & & \overline{P(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{J(t)}}} \\
\overline{S(t)} & & \uparrow & & \overline{S(t)} & & \uparrow \\
\uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{H(t)}}} \\
\overline{\overline{K(t)}} & & \uparrow & & \overline{\overline{K(t)}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{R(t)}}} & & \uparrow & & \overline{\overline{\overline{R(t)}}} \\
\overline{\overline{\overline{G(t)}}} & \text{FUprt}(t) & \overline{\overline{\overline{F_1(t)}}} & + & \overline{\overline{\overline{G(t)}}} & \text{FUprt}(t) & \overline{\overline{\overline{F_1(t)}}} \\
\uparrow & & \overbrace{\overbrace{\overbrace{A(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{A(t)}}} \\
\overline{\overline{O(t)}} & & \uparrow & & \overline{\overline{O(t)}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{L(t)}}} & & \uparrow & & \overline{\overline{\overline{L(t)}}} \\
\overbrace{\overbrace{\overbrace{U(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{U(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{D(t)}}} & & \uparrow & & \overline{\overline{\overline{D(t)}}} \\
\overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{V(t)}}} & & \uparrow \\
\uparrow & & \overline{\overline{\overline{Q(t)}}} & & \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
\overbrace{\overbrace{\overbrace{B(t)}}} & & \uparrow & & \overbrace{\overbrace{\overbrace{B(t)}}} & & \uparrow \\
\dots & & & & \dots & & \dots
\end{array}
=
\begin{array}{cc}
C(t) & \dots \\
\uparrow & \overbrace{\overbrace{\overbrace{W(t)}}} \\
\overline{P(t)} & \uparrow \\
\uparrow & \overbrace{\overbrace{\overbrace{J(t)}}} \\
\overline{S(t)} & \uparrow \\
\uparrow & \overbrace{\overbrace{\overbrace{H(t)}}} \\
\overline{\overline{K(t)}} & \uparrow \\
\uparrow & \overline{\overline{\overline{R(t)}}} \\
\overline{\overline{\overline{G(t)}}} & \text{FUprt}(t) \\
\uparrow & \overline{\overline{\overline{F_1(t)}}} \cup \overline{\overline{\overline{F_2(t)}}} \\
\overbrace{\overbrace{\overbrace{A(t)}}} & \uparrow \\
\uparrow & \overbrace{\overbrace{\overbrace{L(t)}}} \\
\overline{\overline{O(t)}} & \uparrow \\
\uparrow & \overline{\overline{\overline{D(t)}}} \\
\overbrace{\overbrace{\overbrace{U(t)}}} & \uparrow \\
\uparrow & \overline{\overline{\overline{Q(t)}}} \\
\overbrace{\overbrace{\overbrace{V(t)}}} & \uparrow \\
\dots & \dots
\end{array}$$

(A.2.4.2.10),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S_1(t)}} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \text{FUprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S_2(t)}} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \text{FUprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} \\
= & & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S_1(t)} \cup \overline{\overline{S_2(t)}}} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \text{FUprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A.2.4.2.10.1),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{\overline{U_1(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \text{FUprt}(t) \\ \uparrow \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{\overline{U_2(t)}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \text{FUprt}(t) \\ \uparrow \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overline{\overline{O(t)}} \\ \uparrow \\ \overline{\overline{\overline{U_1(t)} \cup \overline{\overline{\overline{U_2(t)}}}}} \\ \uparrow \\ \overline{\overline{\overline{V(t)}}} \\ \dots \end{array} & \begin{array}{c} \text{FUprt}(t) \\ \uparrow \end{array} & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A. 2.4.2.10.3),

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overbrace{O(t)} \\ \uparrow \\ \overline{\overline{\overline{U(t)}}} \\ \uparrow \\ \overline{\overline{\overline{\overline{V_1(t)}}}} \\ \dots \end{array} & & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overbrace{H(t)} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overbrace{O(t)} \\ \uparrow \\ \overline{\overline{\overline{U(t)}}} \\ \uparrow \\ \overline{\overline{\overline{\overline{V_1(t)}}}} \\ \dots \end{array} & & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overbrace{H(t)} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \uparrow \\ \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{\overline{S(t)}} \\ \uparrow \\ \overline{\overline{\overline{K(t)}}} \\ \uparrow \\ \overbrace{R(t)} \\ \uparrow \\ \overline{\overline{\overline{G(t)}}} \\ \uparrow \\ \overbrace{O(t)} \\ \uparrow \\ \overline{\overline{\overline{U(t)}}} \\ \uparrow \\ \overline{\overline{\overline{\overline{V_1(t)}}}} \cup \overline{\overline{\overline{\overline{V_2(t)}}}} \\ \dots \end{array} \\
& & \text{FUprt}(t) & & \text{FUprt}(t) & & \text{FUprt}(t)
\end{array}$$

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \uparrow \quad (\text{A. 2.4.2.10.4}), \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}$$

$$\begin{array}{ccccccc}
\begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J_1(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J_1(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} C(t) \\ \uparrow \\ \overline{P(t)} \\ \uparrow \\ \overline{S(t)} \\ \uparrow \\ \overline{\overline{K(t)}} \\ \uparrow \\ \overline{R(t)} \\ \uparrow \\ \overline{\overline{G(t)}} \\ \uparrow \\ \overline{O(t)} \\ \uparrow \\ \overline{\overline{u(t)}} \\ \uparrow \\ \overline{\overline{V(t)}} \\ \dots \end{array} & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J_1(t)}} \cup \overline{\overline{J_2(t)}} \\ \uparrow \\ \overline{H(t)} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{A(t)} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D(t)}} \\ \uparrow \\ \overline{Q(t)} \\ \uparrow \\ B(t) \end{array}
\end{array}$$

(A. 2.4.2.10.5),

$$\begin{array}{ccccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\begin{array}{c}
\text{FUprt}(t) \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\begin{array}{c}
\vdots \\
\overline{\overline{\overline{W_1(t)}}} \\
\uparrow \\
\overbrace{J(t)} \\
\uparrow \\
\overbrace{H(t)} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overbrace{A(t)} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
&
+ \begin{array}{c}
\text{FUprt}(t) \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
= \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\end{array}$$

$$\begin{array}{c}
\begin{array}{c} \dots \\ \overline{\overline{\overline{W_1(t)}}} \cup \overline{\overline{\overline{W_2(t)}}} \end{array} \\
\uparrow \\
\overline{\overline{\overline{J(t)}}} \\
\uparrow \\
\overline{\overline{\overline{H(t)}}} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \quad \text{(A. 2.4.2.10.6).} \\
\overline{\overline{\overline{A(t)}}} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}$$

We consider the following self-type dynamic FUp_{rt}-structures of the first type:

$$\begin{array}{ccc}
 Q(t) & & \dots \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{Q(t)} & & \uparrow \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{\overline{Q(t)}} & & \overbrace{Q(t)} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \overline{\overline{\overline{\overline{Q(t)}}}} & & \overbrace{Q(t)} \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \overline{\overline{\overline{Q(t)}}} & \text{FUprt}(t) & \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \overline{\overline{\overline{\overline{\overline{Q(t)}}}}} & & \uparrow \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \overline{\overline{\overline{\overline{Q(t)}}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{\overline{Q(t)}}}} & & \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{\overline{Q(t)}}}} & & Q(t) \\
 \dots & &
 \end{array}
 \quad (A.2.4.3),$$

$$\begin{array}{ccc}
 Q(t) & & \dots \\
 \uparrow & & \overline{\overline{\overline{A(t)}}} \\
 \overline{Q(t)} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overbrace{Q(t)} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & \text{FUprt}(t) & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{A(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \dots & & Q(t)
 \end{array}
 \quad (A.2.4.4),$$

$$\begin{array}{ccc}
 B(t) & & \dots \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{Q(t)} & & \uparrow \\
 \uparrow & & \overbrace{Q(t)} \\
 \overline{\overline{Q(t)}} & & \overbrace{Q(t)} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \overline{Q(t)} & & \overbrace{Q(t)} \\
 \uparrow & & \uparrow \\
 \overbrace{Q(t)} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \overline{Q(t)} \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \overline{Q(t)} & & \overline{Q(t)} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{Q(t)} \\
 \overline{Q(t)} & & \uparrow \\
 \dots & & B(t)
 \end{array}
 \quad \text{FUprt}(t) \quad (A.2.4.5),$$

(A.2.4.6),

$$\begin{array}{ccc}
 a(t) & & \dots \\
 \uparrow & & \underbrace{\hspace{1cm}} \\
 \overline{Q(t)} & & str\ A(t) \\
 \uparrow & & \uparrow \\
 \overline{\overline{Q(t)}} & & \underbrace{\hspace{1cm}} \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{Q(t)}} \\
 \uparrow & & \uparrow \\
 \underbrace{\overline{Q(t)}} & & \underbrace{\overline{Q(t)}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & FUprt(t) & \overline{\overline{\overline{Q(t)}}} \quad (A.2.4.6.1), \\
 \overline{\overline{\overline{Q(t)}}} & & \uparrow \\
 \uparrow & & \underbrace{\overline{Q(t)}} \\
 \underbrace{\overline{\overline{Q(t)}}} & & \overline{\overline{\overline{Q(t)}}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{\overline{Q(t)}}} & & \overline{\overline{Q(t)}} \\
 \uparrow & & \uparrow \\
 str\ \underbrace{\overline{\overline{\overline{A(t)}}}} & & \overline{\overline{Q(t)}} \\
 \dots & & \uparrow \\
 & & a(t)
 \end{array}$$

denote $FZ_{11}(t)fA(t);Q(t);a(t)$, $a(t) \subset A(t)$,

$$\text{FUprt}(t) \leq Q(t) \quad (\text{A.2.4.6.2}),$$

denote $FZ_{12}(t)fa(t);Q(t);A(t)$, $a(t) \subset A(t)$,

(A.2.4.7.1),

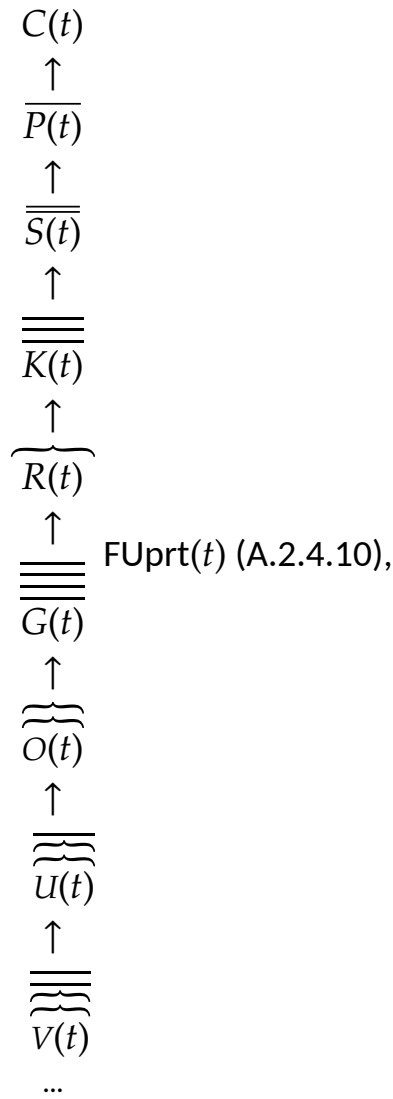
It can be considered a simpler version of the fuzzy dynamic operator

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \text{FUprt}(t) \uparrow \quad (\text{A.2.4.8}) \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{B(t)}}}
 \end{array}$$

where $\overline{\overline{\overline{W(t)}}}$ - *parelf* levels of fuzzy $W(t)$, $\overline{\overline{\overline{J(t)}}}$ - singelf levels of fuzzy $J(t)$, $\overline{\overline{\overline{H(t)}}}$ - paradoxical upper level of fuzzy $H(t)$, $\overline{\overline{\overline{F(t)}}}$ - paradoxical average level of fuzzy $F(t)$, $\overline{\overline{\overline{A(t)}}}$ - upper level of fuzzy $A(t)$, $\overline{\overline{\overline{Q(t)}}}$ - middle₁ level of fuzzy $Q(t)$, fuzzy $B(t)$ goes to the middle₁ level of $Q(t)$ - $\overline{\overline{\overline{Q(t)}}}$, $\overline{\overline{\overline{Q(t)}}}$ goes to the middle₂ level $\overline{\overline{\overline{D(t)}}}$, $\overline{\overline{\overline{D(t)}}}$ goes to the middle₂ level fuzzy $L(t)$, $\overline{\overline{\overline{L(t)}}}$ goes to the upper level of $A(t)$ - $\overline{\overline{\overline{A(t)}}}$, $\overline{\overline{\overline{A(t)}}}$ goes to the paradoxical middle level of $F(t)$ - $\overline{\overline{\overline{F(t)}}}$, $\overline{\overline{\overline{F(t)}}}$ goes to the paradoxical upper level of $H(t)$ - $\overline{\overline{\overline{H(t)}}}$, $\overline{\overline{\overline{H(t)}}}$ goes to the singelf levels of $J(t)$ - $\overline{\overline{\overline{J(t)}}}$, $\overline{\overline{\overline{J(t)}}}$ goes to the *parelf* levels of $W(t)$ - $\overline{\overline{\overline{W(t)}}}$ simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{W(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{J(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{H(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{F(t)}}} \\
 \text{Urt}(t) \quad \uparrow \quad (\text{A.2.4.9}), \\
 \overline{\overline{\overline{A(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{L(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{D(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 B(t)
 \end{array}$$

or



where $\overline{\overline{\overline{V(t)}}}$ - *parelf* levels of fuzzy $V(t)$ goes to $\overline{\overline{\overline{U(t)}}}$ - singelf levels of fuzzy $U(t)$, $\overline{\overline{O(t)}}$ - paradoxical upper level of fuzzy $O(t)$, $\overline{\overline{\overline{G(t)}}}$ - paradoxical average level of fuzzy $G(t)$, $\overline{R(t)}$ - upper levels of fuzzy $R(t)$, $\overline{P(t)}$ - middle₁ level of fuzzy $P(t)$, $\overline{\overline{\overline{O(t)}}}$ goes to the paradoxical middle level of $G(t)$ - $\overline{\overline{\overline{G(t)}}}$, $\overline{\overline{\overline{G(t)}}}$ goes to the upper level of $R(t)$ - $\overline{R(t)}$, $\overline{R(t)}$ goes to the middle₂ level fuzzy $\overline{\overline{\overline{K(t)}}}$, $\overline{\overline{\overline{K(t)}}}$ goes to the middle₁ level fuzzy $\overline{\overline{S(t)}}$, $\overline{\overline{S(t)}}$ goes to the middle₁ level of $P(t)$ - $\overline{P(t)}$, $\overline{P(t)}$ goes to the lower level of $C(t)$ simultaneously, the result of this process will be described by the expression

$$\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \quad \text{Urt}(t) \text{ (A.2.4.11),} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}$$

Definition A.2.4.2. The dynamic operator (A.2.4.8) we shall call dynamic FUprt – element of the second type, (A.2.4.9) we shall call dynamic FUrt – element of the second type.

It's allowed to add dynamic FUprt – elements of the second type:

$$\begin{array}{ccccc}
\begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \text{FUprt}(t) \uparrow \\ \overline{\overline{\overline{A_1(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & + & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \text{FUprt}(t) \uparrow \\ \overline{\overline{\overline{A_2(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & = & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F(t)}}} \\ \text{FUprt}(t) \uparrow \\ \overline{\overline{\overline{A_1(t) \cup A_2(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & \text{(A.2.4.12),}
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} \\
\text{FUprt}(t) \uparrow & + \text{FUprt}(t) \uparrow & = & \text{FUprt}(t) \uparrow & & \text{(A.2.4.13),} \\
& \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{Q(t)}} & & \overline{\overline{Q(t)}} & & \overline{\overline{Q(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& B_1(t) & & B_2(t) & & B_1(t) \cup B_2(t)
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} \\
\text{FUprt}(t) \uparrow + \text{FUprt}(t) \uparrow & = & \text{FUprt}(t) \uparrow & & \text{(A.2.4.13.1),} \\
& \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{Q_1(t)} & & \overline{Q_2(t)} & & \overline{Q_1(t)} \cup \overline{Q_2(t)} \\
& \uparrow & & \uparrow & & \uparrow \\
& B(t) & & B(t) & & B(t)
\end{array}$$

$$\begin{array}{ccccc}
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H_1(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \text{FUprt}(t) \uparrow \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 + \text{FUprt}(t) &
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H_2(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \uparrow \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 &
 = \text{FUprt}(t) &
 \begin{array}{c}
 \dots \\
 \overline{\overline{W(t)}} \\
 \uparrow \\
 \overline{\overline{J(t)}} \\
 \uparrow \\
 \overline{\overline{H_1(t) \cup H_2(t)}} \\
 \uparrow \\
 \overline{\overline{F(t)}} \\
 \uparrow \\
 \overline{\overline{A(t)}} \\
 \uparrow \\
 \overline{\overline{L(t)}} \\
 \uparrow \\
 \overline{\overline{D(t)}} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \uparrow \\
 B(t)
 \end{array}
 \end{array}
 \quad (\text{A.2.4.13.2}),$$

$$\begin{array}{ccccc}
 \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F_1(t)}}} \end{array} & + & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F_2(t)}}} \end{array} & = & \begin{array}{c} \dots \\ \overline{\overline{\overline{W(t)}}} \\ \uparrow \\ \overline{\overline{\overline{J(t)}}} \\ \uparrow \\ \overline{\overline{\overline{H(t)}}} \\ \uparrow \\ \overline{\overline{\overline{F_1(t) \cup F_2(t)}}} \end{array} \\
 \text{FUprt}(t) \uparrow & & \text{FUprt}(t) \uparrow & & \text{FUprt}(t) \uparrow \\
 \begin{array}{c} \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & & \begin{array}{c} \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array} & & \begin{array}{c} \overline{\overline{\overline{A(t)}}} \\ \uparrow \\ \overline{\overline{\overline{L(t)}}} \\ \uparrow \\ \overline{\overline{\overline{D(t)}}} \\ \uparrow \\ \overline{\overline{\overline{Q(t)}}} \\ \uparrow \\ B(t) \end{array}
 \end{array} \quad (\text{A.2.4.13.3}).$$

$$\begin{array}{ccccc}
\begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \text{FUprt}(t) \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D_1(t)}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ B(t) \end{array} & + \text{FUprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D_2(t)}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ B(t) \end{array} & = \text{FUprt}(t) & \begin{array}{c} \dots \\ \overline{\overline{W(t)}} \\ \uparrow \\ \overline{\overline{J(t)}} \\ \uparrow \\ \overline{\overline{H(t)}} \\ \uparrow \\ \overline{\overline{F(t)}} \\ \uparrow \\ \overline{\overline{A(t)}} \\ \uparrow \\ \overline{\overline{L(t)}} \\ \uparrow \\ \overline{\overline{D_1(t)}} \cup \overline{\overline{D_2(t)}} \\ \uparrow \\ \overline{\overline{Q(t)}} \\ \uparrow \\ B(t) \end{array} & \text{(A. 2.4.13.3.1),}
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & \dots \\
& \overline{\overline{\overline{W_1(t)}}} & & \overline{\overline{\overline{W_2(t)}}} & \overline{\overline{\overline{W_1(t) \cup W_1(t)}}} \\
& \uparrow & & \uparrow & \uparrow \\
& \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} & \overline{\overline{J(t)}} \\
& \uparrow & & \uparrow & \uparrow \\
& \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} & \overline{\overline{H(t)}} \\
& \uparrow & & \uparrow & \uparrow \\
& \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} & \overline{\overline{F(t)}} \\
\text{FUprt}(t) \uparrow & + \text{FUprt}(t) & = \text{FUprt}(t) & \uparrow & \\
& \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} & \overline{\overline{A(t)}} \\
& \uparrow & & \uparrow & \uparrow \\
& \overline{\overline{L(t)}} & & \overline{\overline{L(t)}} & \overline{\overline{L(t)}} \\
& \uparrow & & \uparrow & \uparrow \\
& \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} & \overline{\overline{D(t)}} \\
& \uparrow & & \uparrow & \uparrow \\
& \overline{Q(t)} & & \overline{Q(t)} & \overline{Q(t)} \\
& \uparrow & & \uparrow & \uparrow \\
& B(t) & & B(t) & B(t)
\end{array}
\quad (\text{A. 2.4.13.3.2}),$$

$$\begin{array}{ccccc}
\begin{array}{c}
\cdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{\overline{J_1(t)}}} \\
\uparrow \\
\overline{\overline{\overline{H(t)}}} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\text{FUprt}(t) \uparrow \\
\overline{\overline{\overline{A(t)}}} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
&
+ \text{FUprt}(t) &
\begin{array}{c}
\cdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{\overline{J_2(t)}}} \\
\uparrow \\
\overline{\overline{\overline{H(t)}}} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overline{\overline{\overline{A(t)}}} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
&
= \text{FUprt}(t) &
\begin{array}{c}
\cdots \\
\overline{\overline{\overline{W(t)}}} \\
\uparrow \\
\overline{\overline{\overline{J_1(t) \cup J_2(t)}}} \\
\uparrow \\
\overline{\overline{\overline{H(t)}}} \\
\uparrow \\
\overline{\overline{\overline{F(t)}}} \\
\uparrow \\
\overline{\overline{\overline{A(t)}}} \\
\uparrow \\
\overline{\overline{\overline{L(t)}}} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
B(t)
\end{array}
&
\text{(A. 2.4.13.3.3),}
\end{array}$$

$$\begin{array}{ccccc}
& \dots & & \dots & & \dots \\
& \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} & & \overline{\overline{W(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} & & \overline{\overline{J(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} & & \overline{\overline{H(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} & & \overline{\overline{F(t)}} \\
\text{FUprt}(t) \uparrow + \text{FUprt}(t) \uparrow = \text{FUprt}(t) \uparrow & & & & & \text{(A. 2.4.13.3.4).} \\
& \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} & & \overline{\overline{A(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{L_1(t)}} & & \overline{\overline{L_2(t)}} & & \overline{\overline{L_1(t) \cup L_2(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} & & \overline{\overline{D(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& \overline{\overline{Q(t)}} & & \overline{\overline{Q(t)}} & & \overline{\overline{Q(t)}} \\
& \uparrow & & \uparrow & & \uparrow \\
& B(t) & & B(t) & & B(t)
\end{array}$$

We consider the following self-type dynamic FUprt-structures of the second t type:

$$\begin{array}{c}
\cdots \\
\overline{\overline{\overline{A(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
str \overline{\overline{\overline{A(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \quad (A.2.4.14.1), \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
\overline{\overline{\overline{Q(t)}}} \\
\uparrow \\
a(t)
\end{array}$$

denote $FU_{13}(t) f A(t); Q(t); a(t), a(t) \subset A(t),$

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{\overline{a(t)}}}} \\
 \uparrow \\
 \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \uparrow \\
 str \overline{\overline{\overline{\overline{A(t)}}}} \\
 \uparrow \\
 FUprt(t) \quad \overline{\overline{\overline{\overline{Q(t)}}}} \quad (A.2.4.15), \\
 \uparrow \\
 \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \uparrow \\
 \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \uparrow \\
 \overline{\overline{\overline{\overline{Q(t)}}}} \\
 \uparrow \\
 str A(t)
 \end{array}$$

denote $FU_{14}(t)fa(t);Q(t);A(t)$, $a(t) \subset A(t)$,

$$\begin{array}{c}
 \dots \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \quad \text{FUprt}(t) \quad \text{(A.2.4.16),} \\
 \uparrow \\
 \overline{\overline{\overline{A(t)}}} \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{Q(t)}}}
 \end{array}$$

and any other possible options of self for (A.2.4.8) etc.

Definition A.2.4.3. The fuzzy dynamic operator (A.2.4.10) we shall call dynamic tprFU – element, (A.2.4.11) we shall call dynamic trFU – element.

It's allowed to add dynamic tprFU – elements:

$$\begin{array}{ccc}
C_1(t) & C_2(t) & C_1(t) \cup C_2(t) \\
\uparrow & \uparrow & \uparrow \\
\overline{P(t)} & \overline{P(t)} & \overline{P(t)} \\
\uparrow & \uparrow & \uparrow \\
\overline{\overline{S(t)}} & \overline{\overline{S(t)}} & \overline{\overline{S(t)}} \\
\uparrow & \uparrow & \uparrow \\
\overline{\overline{\overline{K(t)}}} & \overline{\overline{\overline{K(t)}}} & \overline{\overline{\overline{K(t)}}} \\
\uparrow & \uparrow & \uparrow \\
\overbrace{R(t)} & \overbrace{R(t)} & \overbrace{R(t)} \\
\uparrow & \uparrow & \uparrow \\
\overline{\overline{\overline{G(t)}}} & \overline{\overline{\overline{G(t)}}} & \overline{\overline{\overline{G(t)}}} \\
\uparrow & \uparrow & \uparrow \\
\overbrace{O(t)} & \overbrace{O(t)} & \overbrace{O(t)} \\
\uparrow & \uparrow & \uparrow \\
\overline{\overline{\overline{U(t)}}} & \overline{\overline{\overline{U(t)}}} & \overline{\overline{\overline{U(t)}}} \\
\uparrow & \uparrow & \uparrow \\
\overline{\overline{\overline{V(t)}}} & \overline{\overline{\overline{V(t)}}} & \overline{\overline{\overline{V(t)}}} \\
\vdots & \vdots & \vdots
\end{array}
\begin{array}{c}
\text{FUprt}(t)+ \\
\text{FUprt}(t)=
\end{array}
\begin{array}{c}
\text{FUprt}(t) \quad (\text{A.2.4.17}),
\end{array}$$

$$\begin{array}{ccc}
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{R_1(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overline{\overline{O(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{R_2(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overline{\overline{O(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 &
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overline{R_1(t)} \cup \overline{R_2(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overline{\overline{O(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \end{array}
 \begin{array}{l}
 \\
 \\
 \\
 \\
 \text{FUprt}(t)+ \\
 \\
 \text{FUprt}(t)= \\
 \\
 \text{FUprt}(t) \text{ (A.2.4.18),}
 \end{array}$$

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$$\begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)}}} \text{FUprt} + \overline{\overline{\overline{G_1(t)}}} \text{FUprt} = \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \quad
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)}}} \text{FUprt} = \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \quad
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G_1(t)}}} \cup \overline{\overline{\overline{G_2(t)}}} \text{FUprt}(t) \text{ (A.2.4.18.2),} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}$$

$$\begin{array}{ccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O_1(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\text{FUprt}(t) + \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O_2(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\text{FUprt}(t) = \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O_1(t) \cup O_2(t)} \\
\uparrow \\
\overline{\overline{\overline{u(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\end{array}
\quad \text{FUprt}(t) \text{ (A.2.4.18.3),}$$

$$\begin{array}{ccc}
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_1(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
\text{FUprt}(t) + \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_2(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
&
= \begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S_1(t)} \cup \overline{\overline{S_2(t)}}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V(t)}}} \\
\vdots
\end{array}
\text{FUprt}(t) \text{ (A. 2.4.18.3.1),}
\end{array}$$

$$\begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U_1(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \text{FUprt}(t) +
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U_2(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \text{FUprt}(t) =
 \begin{array}{c}
 C(t) \\
 \uparrow \\
 \overline{P(t)} \\
 \uparrow \\
 \overline{\overline{S(t)}} \\
 \uparrow \\
 \overline{\overline{\overline{K(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{G(t)}}} \\
 \uparrow \\
 \overbrace{O(t)} \\
 \uparrow \\
 \overline{\overline{\overline{U_1(t)}}} \cup \overline{\overline{\overline{U_2(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{V(t)}}} \\
 \dots
 \end{array}
 \text{FUprt}(t) \text{ (A. 2.4.18.3.2),}$$

$$\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V_1(t)}}} \\
\ldots
\end{array}
\text{FUprt}(t) +
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V_2(t)}}} \\
\ldots
\end{array}
\text{FUprt}(t) =
\begin{array}{c}
C(t) \\
\uparrow \\
\overline{P(t)} \\
\uparrow \\
\overline{\overline{S(t)}} \\
\uparrow \\
\overline{\overline{\overline{K(t)}}} \\
\uparrow \\
\overbrace{R(t)} \\
\uparrow \\
\overline{\overline{\overline{G(t)}}} \\
\uparrow \\
\overbrace{O(t)} \\
\uparrow \\
\overline{\overline{\overline{U(t)}}} \\
\uparrow \\
\overline{\overline{\overline{V_1(t)}}} \cup \overline{\overline{\overline{V_2(t)}}} \\
\ldots
\end{array}
\text{FUprt}(t) \text{ (A. 2.4.18.3.3),}$$

$$\begin{array}{ccccc}
C(t) & & C(t) & & C(t) \\
\uparrow & & \uparrow & & \uparrow \\
\overline{P(t)} & & \overline{P(t)} & & \overline{P(t)} \\
\uparrow & & \uparrow & & \uparrow \\
\overline{\overline{S(t)}} & & \overline{\overline{S(t)}} & & \overline{\overline{S(t)}} \\
\uparrow & & \uparrow & & \uparrow \\
\overline{\overline{\overline{K_1(t)}}} & & \overline{\overline{\overline{K_2(t)}}} & & \overline{\overline{\overline{K_1(t) \cup K_2(t)}}} \\
\uparrow & & \uparrow & & \uparrow \\
\overbrace{R(t)} & & \overbrace{R(t)} & & \overbrace{R(t)} \\
\uparrow & & \uparrow & & \uparrow \\
\overline{\overline{\overline{G(t)}}} & \text{FUprt}(t) + & \overline{\overline{\overline{G(t)}}} & \text{FUprt}(t) = & \overline{\overline{\overline{G(t)}}} \text{FUprt}(t) \text{ (A. 2.4.18.3.4).} \\
\uparrow & & \uparrow & & \uparrow \\
\overbrace{O(t)} & & \overbrace{O(t)} & & \overbrace{O(t)} \\
\uparrow & & \uparrow & & \uparrow \\
\overline{\overline{\overline{U(t)}}} & & \overline{\overline{\overline{U(t)}}} & & \overline{\overline{\overline{U(t)}}} \\
\uparrow & & \uparrow & & \uparrow \\
\overline{\overline{\overline{V(t)}}} & & \overline{\overline{\overline{V(t)}}} & & \overline{\overline{\overline{V(t)}}} \\
\vdots & & \vdots & & \vdots
\end{array}$$

We consider the following self-type dynamic tprFU-structures:

$$\begin{array}{c}
 Q(t) \\
 \uparrow \\
 \overline{Q(t)} \\
 \uparrow \\
 \overline{\overline{Q(t)}} \\
 \overline{\overline{\overline{Q(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{R(t)}}} \text{ FUprt}(t) \text{ (A.2.4.19)} \\
 \uparrow \\
 \overbrace{\overbrace{R(t)}} \\
 \uparrow \\
 \overbrace{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{\overline{\overline{\overline{R(t)}}}} \\
 \dots
 \end{array}$$

$$\begin{array}{c}
 strD(t) \\
 \uparrow \\
 \overline{R(t)} \\
 \uparrow \\
 \overline{\overline{R(t)}} \\
 \overline{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{R(t)}}} \quad FUprt(t)(A.2.4.19.1), \\
 \uparrow \\
 \overbrace{R(t)} \\
 \uparrow \\
 \overline{\overline{\overline{R(t)}}} \\
 \uparrow \\
 \overline{\overline{\overline{d(t)}}} \\
 \dots
 \end{array}$$

denote $FU_{15}(t)fd(t);R(t);D(t)$, $d(t) \subset D(t)$,

$$\begin{array}{c}
d(t) \\
\uparrow \\
\overline{R(t)} \\
\uparrow \\
\overline{\overline{R(t)}} \\
\overline{\overline{\overline{R(t)}}} \\
\uparrow \\
\overbrace{D(t)} \\
\uparrow \\
\overline{\overline{\overline{D(t)}}} \text{ FUprt}(t) \text{ (A.2.4.20)} \\
\uparrow \\
\overbrace{\overbrace{D(t)}} \\
\uparrow \\
\overbrace{\overbrace{\overline{\overline{D(t)}}}} \\
\uparrow \\
\overbrace{\overbrace{\overline{\overline{\overline{D(t)}}}}} \\
\vdots
\end{array}$$

denote $FU_{16}(t)fD(t);R(t);d(t), d(t) \subset D(t),$

$$\begin{matrix} a & b & g \\ c & AfFUrq(\mu) & w (*_{A.2.4.2}), \\ d & q & r \end{matrix}$$

where $AfFUrq$ is fuzzy virtual structure or fuzzy virtual operator, which can take any form of fuzzy action; $a, c, d, q, r, w, g, b, \mu$ – any fuzzy objects, fuzzy actions etc.

Accordingly, we can consider all sorts of self-type fuzzy structures for 1) – 3). And any other possible fuzzy structures and fuzzy operators etc.

A.5 Elements of the theory of variables of fuzzy hierarchical fuzzy dynamic operators: FUprt

In contrast to the classical one-attribute fuzzy set theory, where only its contents are taken as a set, we consider a two-attribute fuzzy set theory with a fuzzy set as a fuzzy capacity and separately with its contents. We simply use a convenient form to represent the singularity of a fuzzy set. Articles [1]-[12] use the following methodology for permanent structures:

1. Cancellation of the axiom of regularity.
2. 2 attributes for the fuzzy set: fuzzy capacity and its content.
3. Fuzzy compression of a fuzzy set, for example, to a point.
4. “turning out” from one another, particularly from a fuzzy capacity, we pull out another fuzzy capacity, for example, itself, as its element.
5. The simultaneity of one (fuzzy compression) and the other (“eversion”).
6. Own fuzzy capacities.
7. Qualitatively new fuzzy programming and fuzzy Networks.

Here we will consider variable fuzzy structures (models), both discrete and continuous: a) with variable connections, b) with the variable backbone for links, c) generalized version; in particular, in variable fuzzy structures (models), for example,

$$\begin{array}{c}
C \uparrow \bar{P} \uparrow \bar{S} \uparrow \equiv K \uparrow \left\{ R \uparrow \equiv G \uparrow O \uparrow \right\} \bar{U} \uparrow \equiv V \uparrow \dots \\
\text{FUprt}(t)
\end{array}
=
\begin{array}{c}
\begin{array}{c}
\dots \\
\bar{V} \uparrow \equiv U \uparrow \left\{ \bar{O} \uparrow G \uparrow \equiv R \uparrow \right\} \bar{K} \uparrow \bar{S} \uparrow \bar{P} \uparrow C \\
\dots
\end{array}
\end{array}$$

$$\begin{array}{c}
\dots \\
B \uparrow Q \uparrow D \uparrow \equiv L \uparrow A \uparrow F \uparrow \equiv H \uparrow J \uparrow \bar{W} \uparrow \dots \\
\text{FUprt}(t)
\end{array}$$

$$\begin{array}{c}
\dots \\
B \uparrow \bar{Q} \uparrow D \uparrow \equiv L \uparrow A \uparrow F \uparrow \equiv H \uparrow J \uparrow \bar{W} \uparrow \dots \\
\text{FUprt}(t)
\end{array}$$

μ_i - measures of fuzziness, $i = 1, \dots, 5$. In particular, $\mu_7 \text{ffS}^1 \text{prt} \mu_6$ can be

interpreted as a fuzzy game: player 1 fuzzy with measures of fuzziness μ_6 fits fuzzy A into fuzzy B, and the other fuzzy with measures of fuzziness μ_7 pushes fuzzy D out of fuzzy B at the same time.

In what follows, we will denote variable fuzzy structure (model) through $\text{VWFU}(t)$, qself-variable fuzzy structures (models) through $\text{FUqFVUS}(t)$, qself is self for *action* Q , and oqself-variable fuzzy structures (models) through $\text{OqVFU}(t)$, qoself is oself for *action* Q . Singular fuzzy structures (models) are not confused

with fuzzy structures (models) with singularities. $\mu_7 \text{ffS}^1 \text{prt} \mu_6$ -2-hierarchical

fuzzy structure: 1-level - elements A, B, C, D; level 2 - connections between them.

Examples: a) discrete variable fuzzy structure with μ_i - measures of fuzziness, $i = 1, \dots, 8$.

$a|\mu_1$ $b|\mu_8$ $g|\mu_7$
 $c|\mu_2$ $\text{VUFU}(t)$ $w|\mu_6$
 $d|\mu_3$ $q|\mu_4$ $r|\mu_5$

Fig.A.3.1

c) continuous variable fuzzy structure



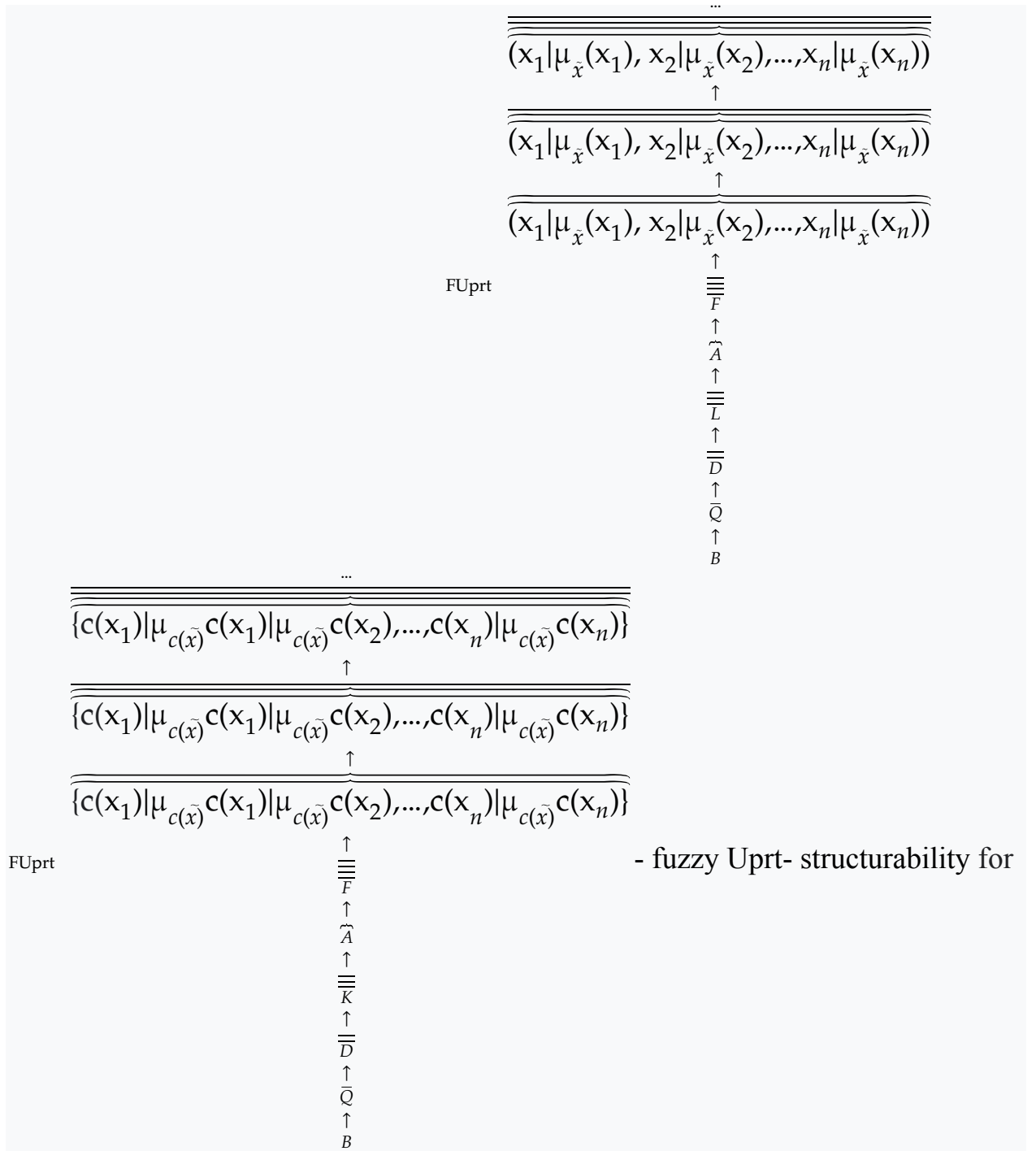
Fig.A.3.2

Where a continuous fuzzy set represents the rim of the Fig.A.3.2.

We introduce the notation m_{fULS_N} – the number of elements, N - the number of connections between them in the discrete variable 2-hierarchical fuzzy structure $\text{VFU}(t)$. We introduce the notation q_{fULS_R} – any, R - connections in q_{fULS_R} in the variable 2-hierarchical fuzzy structure $\text{VUFU}(t)$, in particular, q_{fULS_R} , R can be fuzzy sets both discrete and continuous and discrete-continuous. We consider the

functional $c(Q)$, which gives a numerical value for the fuzzy structurability of Q from the interval $[0,1]$, where 0 corresponds to "no fuzzy structure", " and 1 corresponds to the value " fuzzy structure". Then for joint A, B :

$c(A+B)=c(A)+c(B)-c(A*B)+cS(D)$, D - self-(fuzzy structure) from $A*B$, $cS(x)$ - the value of self-(fuzzy structure) for self-(fuzzy structure) x ; for dependent fuzzy structures: $c(A*B)=c(A)*c(B/A)=c(B)*c(A/B)$, where $c(B/A)$ - conditional fuzzy structurability of the fuzzy structure B at the fuzzy structure A , $c(A/B)$ - conditional fuzzy structure of the fuzzy structure A at the fuzzy structure B . Adding inconsistent fuzzy structures: $c(A+B) = c(A) + c(B)$. The formula of complete fuzzy structure: $c(A) = \sum_{k=1}^n c(B_k) * c(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of fuzzy hypotheses- actions: $\sum_{k=1}^n c(B_k) = 1$ ("fuzzy structure"). Fuzzy Uppt- structure for fuzzy set of fuzzy structures $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$:



these fuzzy structures. It is possible to consider the self-(fuzzy structure)

$FU_8 f \tilde{x}_w; Q; \tilde{x}$, $\tilde{x}_w \subset \tilde{x}$. The same for self-(fuzzy structurability):

$FU_8 f C_w(\tilde{x}); Q; \tilde{C}(\tilde{x})$, where $\tilde{C}(\tilde{x}) =$

$$\{ c(x_1)|\mu_{c(\tilde{x})} c(x_1), c(x_2)|\mu_{c(\tilde{x})} c(x_2), \dots, c(x_n)|\mu_{c(\tilde{x})} c(x_n) \}, C_w(\tilde{x}) \subset \tilde{C}(\tilde{x}).$$

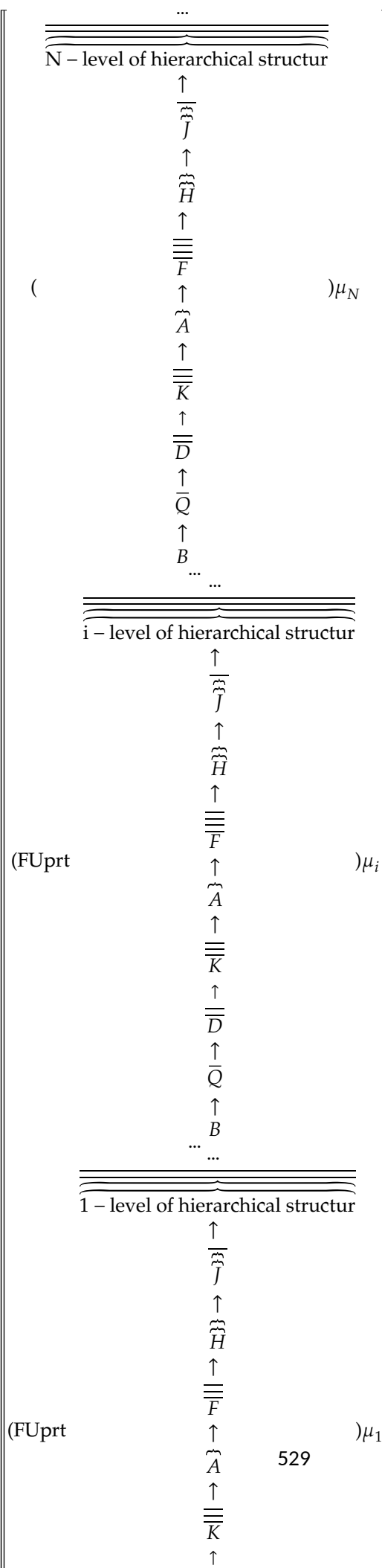
Can be considered N-hierarchical fuzzy structure: 1-level - elements; level 2 - connections between them, level 3 - relationships between elements of level 2, etc. up to level N+1. N-hierarchical fuzzy structure: 1-level - A; 2-level -B, 3-level - C,

etc. up to $(N+!)$ - level, where A, B, C, ... can be any in particular, by fuzzy actions, fuzzy sets, and others.

Can be considered discrete fuzzy hierarchical fuzzy structure, continuous fuzzy hierarchical fuzzy structure, and discrete-continuous hierarchical fuzzy structure.

The example

QHFU= HFUp_{prt}



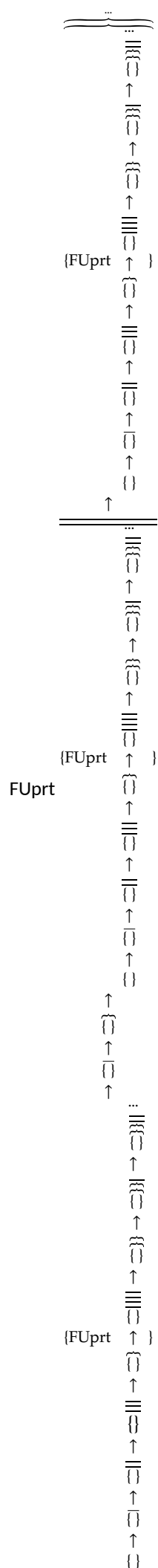
- fuzzy N-hierarchical fuzzy

structure compression into fuzzy B, μ_i - measures of fuzziness, $i = 1, \dots, N$.

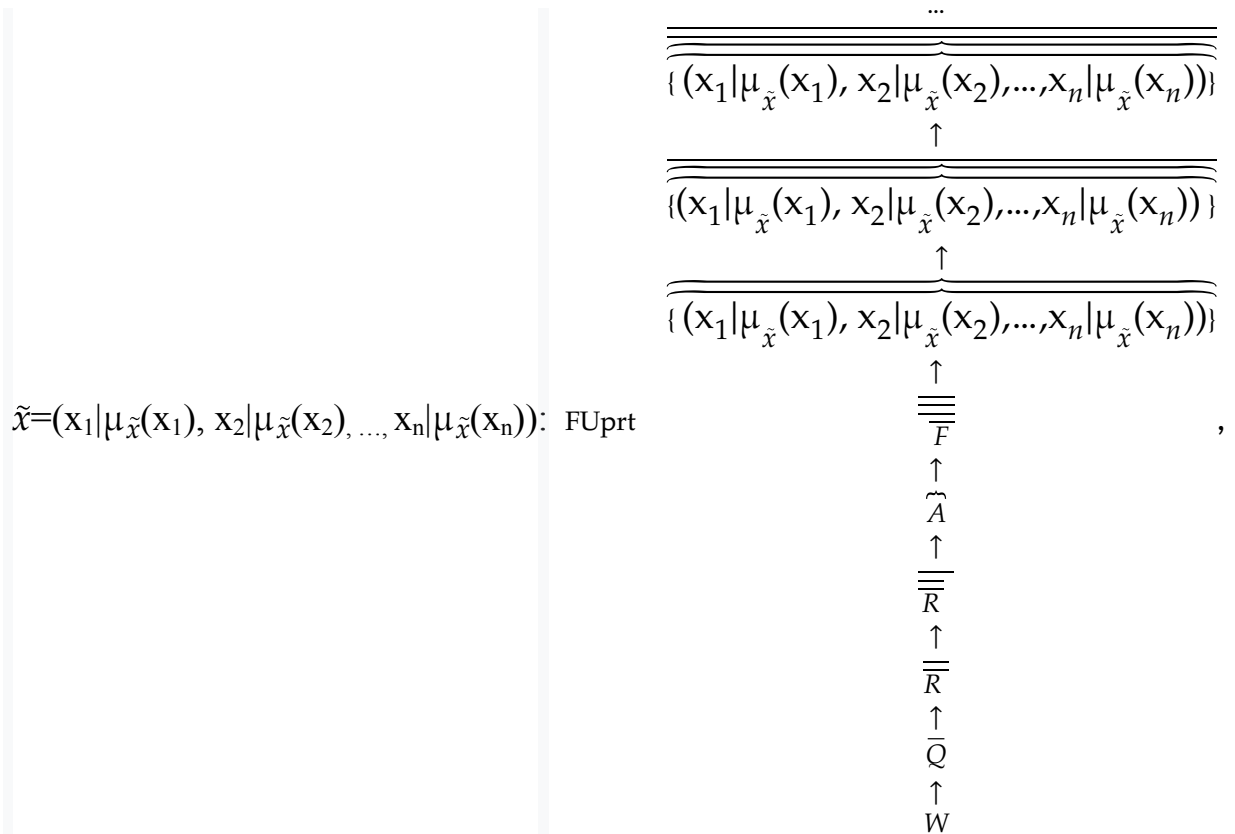
Let $\text{fug}(N, \text{QHFU}) = \text{QHFU} \left\{ \text{QHFU} \text{QHFU} \dots \text{QHFU} \right\}_{-N \text{ levels}}$

It can be considered self- QHFU, $\text{fug}(y, \text{QHFU})$ for any y , $\text{fug}(\text{QHFU}, \text{QHFU})$.

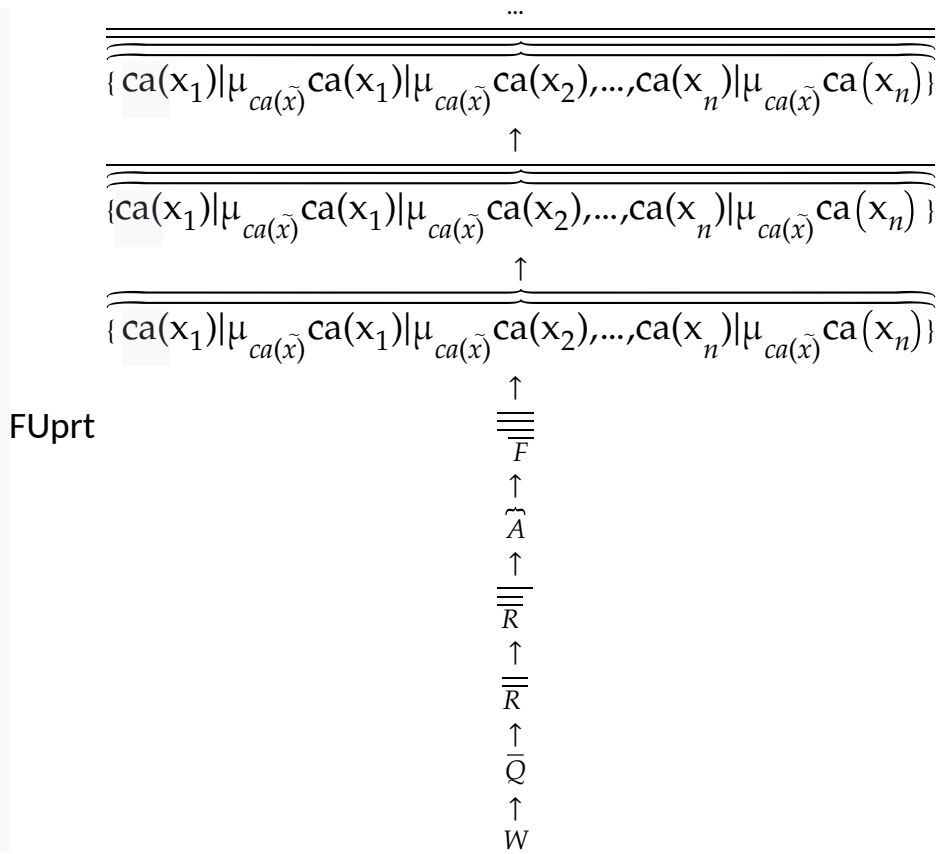
Compression fuzzy Hierarchy Examples:



We consider the functional $ca(Q)$, which gives a numerical value for the accommodation of fuzzy Q from the interval $[0,1]$, where 0 corresponds to "fuzzy action" and one corresponds to the value "fuzzy result of action". Then for joint fuzzy A, B : $ca(A+B)=ca(A)+ca(B)-ca(A*B)+caS(D)$, D - self-(fuzzy action) for $A*B$, $caS(x)$ - the value of self-(fuzzy result of action) for self-(fuzzy action) of x ; for dependent fuzzy actions: $ca(A*B)=ca(A)*ca(B/A)=ca(B)*ca(A/B)$, where $ca(B/A)$ - conditional accommodation of the fuzzy action B at the fuzzy action A , $ca(A/B)$ - conditional fuzzy result of action of the fuzzy action A at the fuzzy action B . Adding the fuzzy capacity values of inconsistent fuzzy action s : $ca(A+B)=ca(A)+ca(B)$. The formula of complete fuzzy result of action: $ca(A)=\sum_{k=1}^n ca(B_k) * ca(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of fuzzy hypotheses- actions: $\sum_{k=1}^n ca(B_k)=1$ ("fuzzy result of action"). FUp_{rt} -(fuzzy action) for



$\tilde{x}$ - fuzzy set of fuzzy actions.



- FUprt- accommodation for these fuzzy actions x_i , $i = 1, \dots, n$. It is possible to consider the self-(fuzzy action) $FU_8 f \tilde{x}_z; Q; \tilde{x}$, $\tilde{x}_z \subset \tilde{x}$. The same for self-(fuzzy accommodation): $FU f Ca_z(\tilde{x}); Q; \tilde{Ca}(x)$, where $Ca_z(\tilde{x}) =$

$$\{ ca(x_1)|\mu_{ca(\tilde{x})}ca(x_1), ca(x_2)|\mu_{ca(\tilde{x})}ca(x_2), \dots, ca(x_n)|\mu_{ca(\tilde{x})}ca(x_n) \} \subset \tilde{Ca}(x).$$

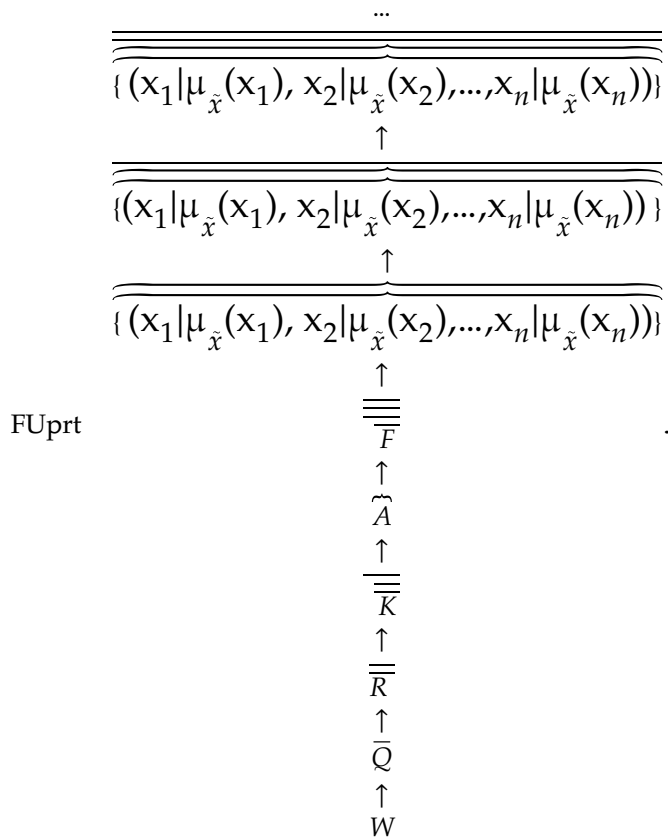
Consider a variable fuzzy hierarchy (we will denote it by flVH).

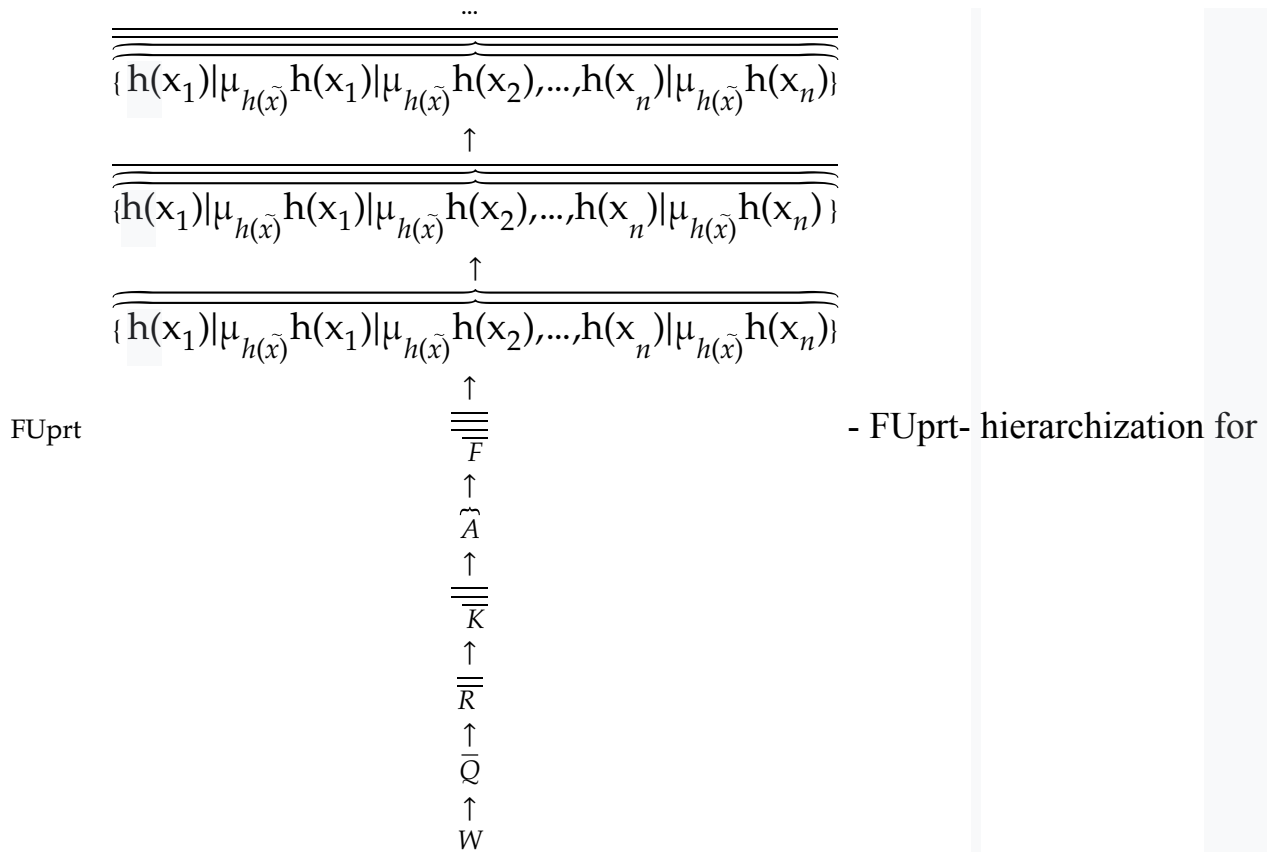
We consider the functional $h(Q)$, which gives a numerical value for the hierarchization of fuzzy Q from the interval $[0,1]$, where 0 corresponds to "no fuzzy hierarchy," and 1 corresponds to the value "fuzzy hierarchy." Then for joint fuzzy hierarchies A, B : $h(A+B)=h(A)+h(B)-h(A*B)+hS(D)$, D - self-(fuzzy hierarchy) from $A*B$, $hS(x)$ - the value of self-(fuzzy hierarchy) for self-(fuzzy hierarchy) x ; for dependent fuzzy hierarchies:

$h(A*B)=h(A)*h(B/A)=h(B)*h(A/B)$, where $h(B/A)$ - conditional hierarchization of the fuzzy hierarchy B at the fuzzy hierarchy A , $h(A/B)$ - conditional fuzzy hierarchy of the fuzzy hierarchy A at the fuzzy hierarchy B . Adding the fuzzy hierarchy values of inconsistent fuzzy hierarchies: $h(A+B)=h(A)+h(B)$. The

formula of complete fuzzy hierarchy: $h(A) = \sum_{k=1}^n h(B_k) * h(A/B_k)$, $B_1, B_2, \dots, B_n$ -full group of fuzzy hypotheses- hierarches: $\sum_{k=1}^n h(B_k) = 1$ (“fuzzy hierarchy”).

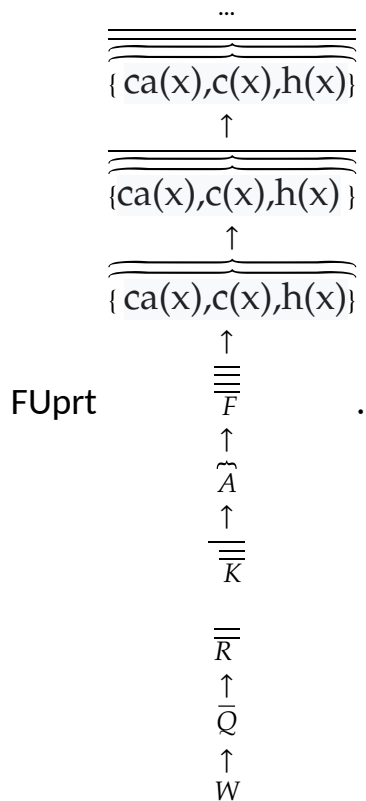
FUp_{prt}- structure for fuzzy set of hierarches $\tilde{x} = (x_1 | \mu_{\tilde{x}}(x_1), x_2 | \mu_{\tilde{x}}(x_2), \dots, x_n | \mu_{\tilde{x}}(x_n))$:



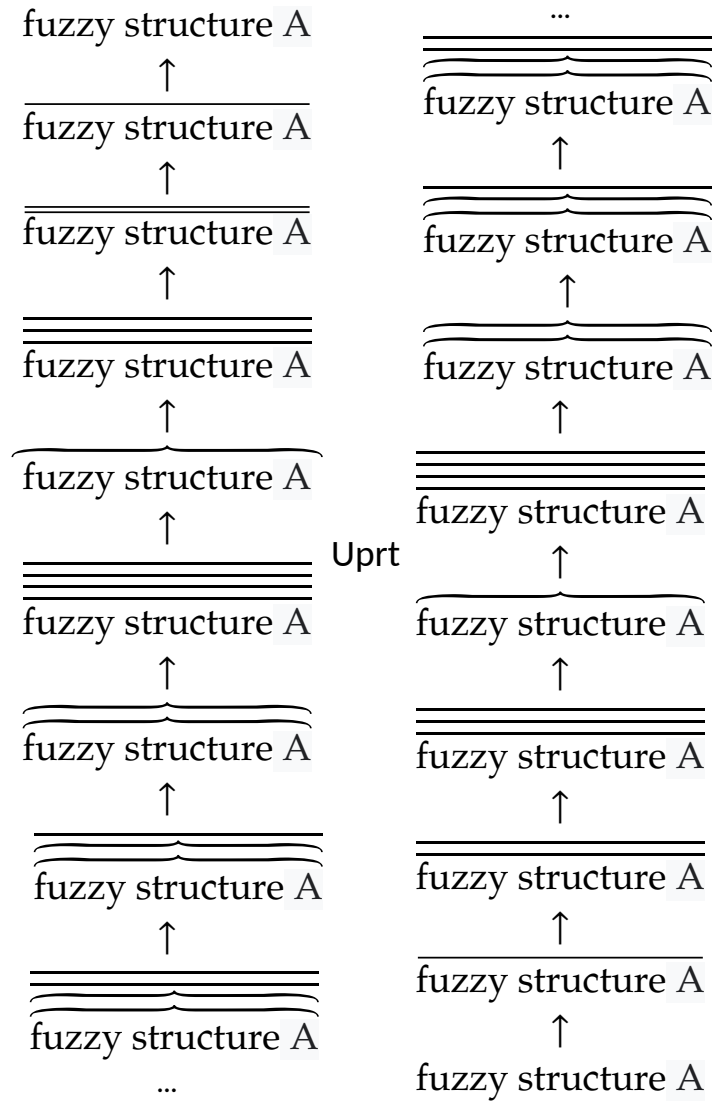


these fuzzy hierarches. It is possible to consider the self-(fuzzy hierarchy)

$FU_8 f_{\tilde{x}_z; Q; \tilde{x}}$, $\tilde{x}_z \subset \tilde{x}$. The same for self- hierarchization $FU_8 f_{\tilde{h}x_z; Q; \tilde{h}x}$, $\tilde{h}x_z \subset \tilde{h}x$,
 $\tilde{h}x = \{h(x_1)|\mu_{h(\tilde{x})}h(x_1), h(x_2)|\mu_{h(\tilde{x})}h(x_2), \dots, h(x_n)|\mu_{h(\tilde{x})}h(x_n)\}$. Can be considered

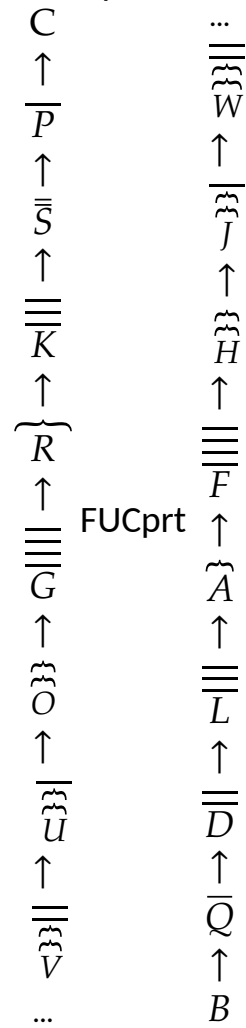


Very interesting next fuzzy structure type:

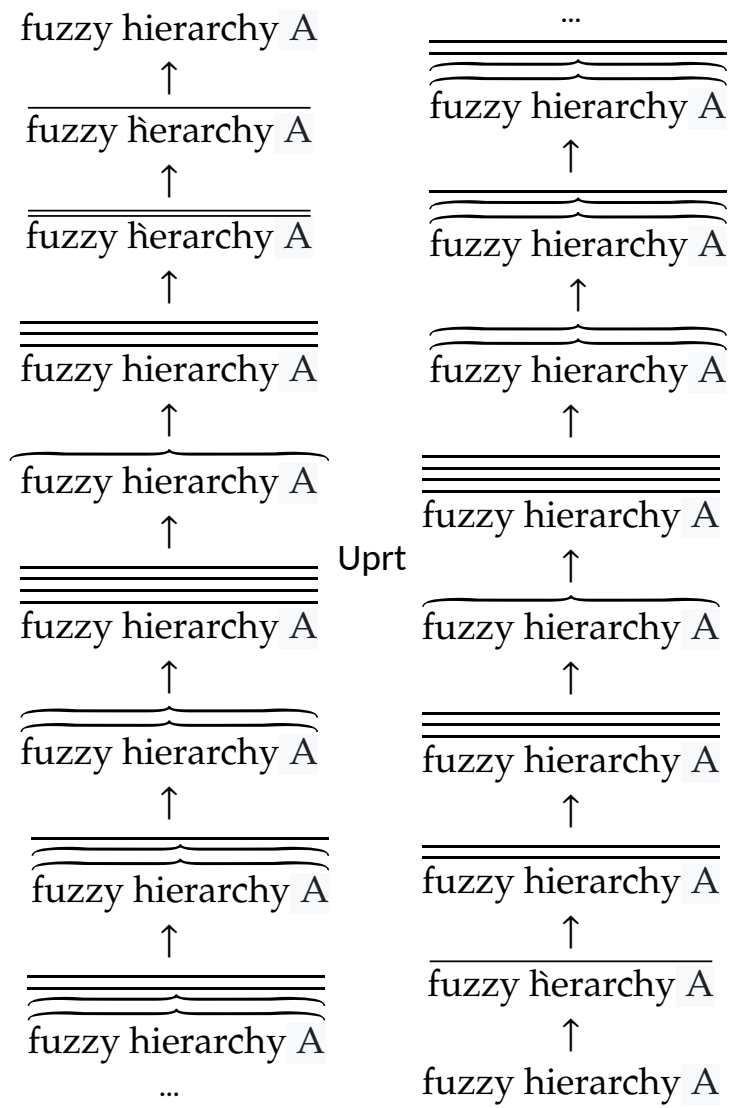


You can enter special operator FUCprt to work with fuzzy structures H, F, A, Q,

B, O, G, R, P, C, W, J, U, V:

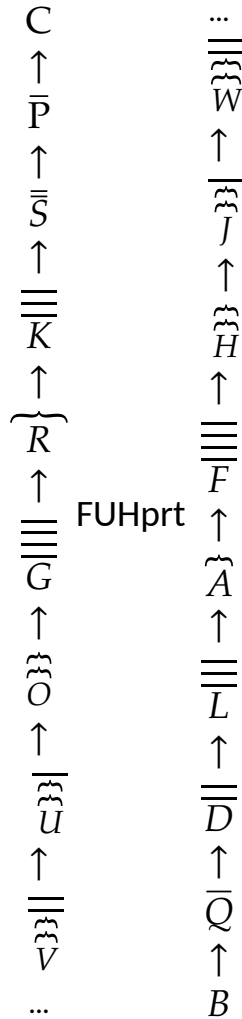


Very interesting next fuzzy hierarchy type:



You can enter special operator FUHp_{prt} to work with fuzzy hierarches H, F, A, Q,

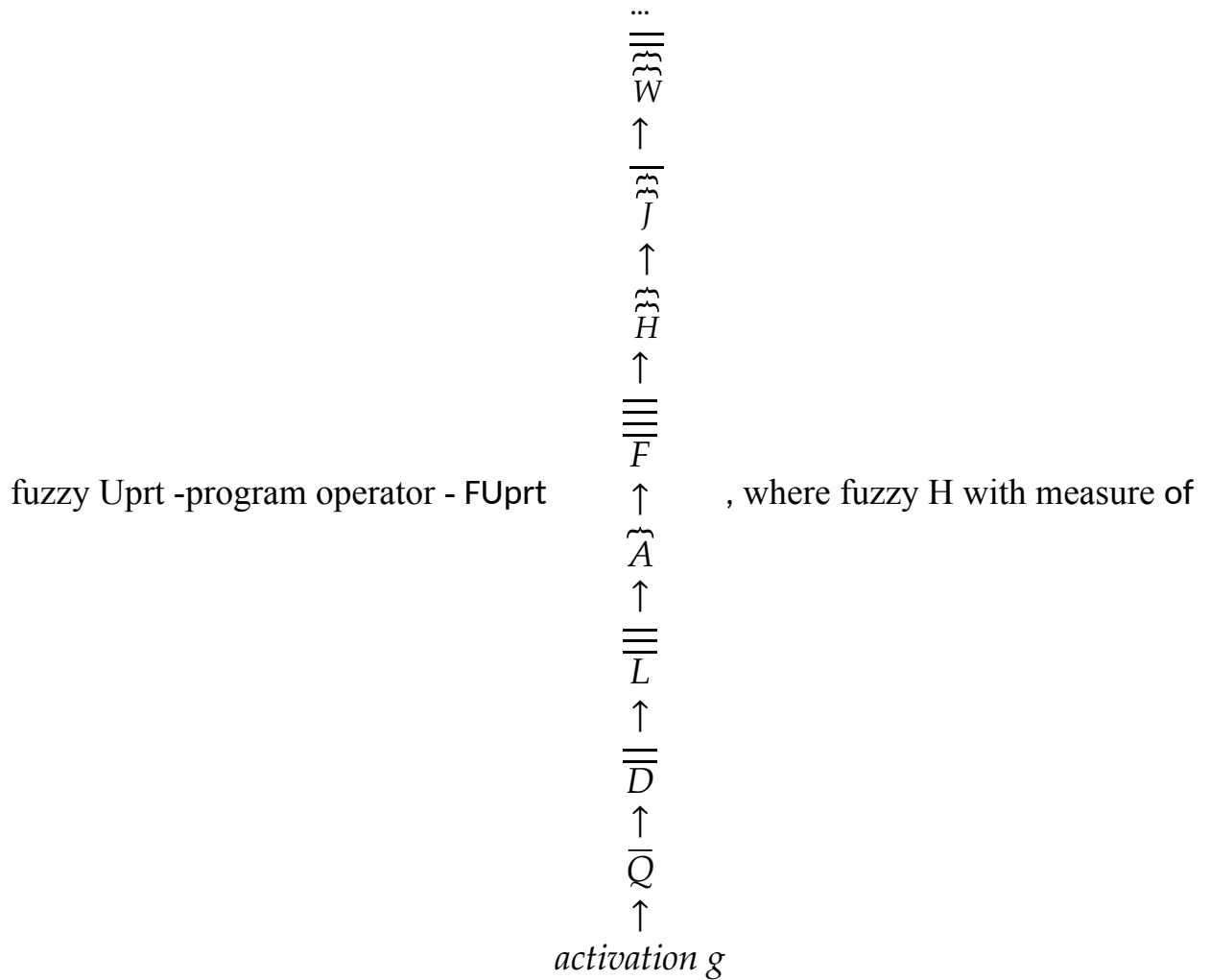
B, O, G, R, P, C, W, J, U, V:



A.6 Introduction to FUZZY PROGRAM OPERATORS FU_{prt}, tprFU, FU¹epr, FUepr₁

Here it is supposed to use a symbiosis of parallel actions and conventional calculations through sequential actions. This must be done through FU_{prt}-Networks - fuzzy analogue of Sit-Networks [1], [6], [12] in one of the central departments of which a conventional computer system is located. The parallel processor is itself fudeprogram - fuzzy analogue of eprogram [1], [6], [12] with direct parallel computing not through serial computing.

Using conventional coding by a computer system, through a Target-block with a



fuzziness μ_A fuzzy acts Q with measure of fuzziness μ_Q to fuzzy *activation* with measure of fuzziness $\mu_{activation}$, Q is any fuzzy *action*, it will be possible to obtain the fuzzy execution with measure of fuzziness $\mu_{activation}$ of a parallel fuzzy action H with the desired target weight g or the execution with measure of fuzziness $\mu_{activation}$ of a parallel action A with the desired fuzzy target weight g with measure of fuzziness μ_g or both. Each code for a neural network from a conventional computer we "bind" (match) to the corresponding value of current (or voltage). For FUpert-coding and FUpert-translation may be use alternating current of ultrahigh frequency or high-intensity ultra-short optical pulses laser of Nobel laureates 2018 year Gerard Mourou, Donna Strickland, or a combination of them. For the desired action, for example, using the direct parallel fudprogram of operator fDprt

$\{\text{UHF AC} := R\}$

action Q with the specified measures of fuzziness, we simultaneously
activation

enter the desired fuzzy set of codes R with measure of fuzziness μ_R using a microwave current with minimal amplitude and maximum frequency or high-intensity ultra-short optical pulses laser in Target-block.

In a conventional computer, the process of sequential calculation takes a certain time interval, in a directly parallel calculation by a neural network, the calculation is instantaneous, but it occupies a certain region of the space of calculation objects.

Consider the types of direct parallel fuzzy fudprogram operators:

- 1) fuzzy Up_{prt}-program operators (designation FU_{prt}-program operators)
- 2) fuzzy tprU-program operators (designation tprFU-program operators)
- 3) fuzzy U¹e_{pr} - program operators (designation FU¹e_{pr} -program operators)
- 4) fuzzy Ue_{prt1}- program operators (designation FUE_{prt1}-program operators)

Examples:

$$\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{L}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
then \overline{Q} \\
\uparrow \\
IF \{ \{B\} \{f\} \}
\end{array}
,$$

1) FUprt

$$\begin{array}{c}
\text{C} \\
\uparrow \\
\overline{\text{P}} \\
\uparrow \\
\overline{\text{S}} \\
\uparrow \\
\overline{\text{K}} \\
\uparrow \\
\overline{\text{R}} \\
\uparrow \\
\overline{\text{G}} \\
\uparrow \\
\overline{\text{O}} \\
\uparrow \\
\overline{\text{U}} \\
\uparrow \\
\overline{\text{V}} \\
\vdots
\end{array}
\begin{array}{c}
\text{FUprt} \\
\vdots \\
\overline{\text{W}} \\
\uparrow \\
\overline{\text{J}} \\
\uparrow \\
\overline{\text{H}} \\
\uparrow \\
\overline{\text{F}} \\
\uparrow \\
\overline{\text{A}} \\
\uparrow \\
\overline{\text{L}} \\
\uparrow \\
\overline{\text{D}} \\
\uparrow \\
\text{then } \overline{\text{Q}}: \equiv \\
\uparrow \\
\text{IF} \{ \{ \text{B} \} \{ \text{f} \} \}
\end{array}$$

$$\begin{array}{c}
C \\
\uparrow \\
\bar{P} \\
\uparrow \\
\bar{S} \\
\uparrow \\
\equiv \\
K \\
\uparrow \\
\overbrace{R} \\
\uparrow \\
\equiv \\
G \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{U} \\
\uparrow \\
\equiv \\
V \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overbrace{\equiv} \\
W \\
\uparrow \\
\overbrace{\equiv} \\
J \\
\uparrow \\
\overbrace{\equiv} \\
H \\
\uparrow \\
\equiv \\
F \\
\uparrow \\
\overbrace{A} \\
\uparrow \\
\equiv \\
L \\
\uparrow \\
\overline{D} \\
\uparrow \\
\overline{Q} \equiv \\
\uparrow \\
B :=
\end{array}$$

3) FUprt

A.7 Paradoxical singularities (singularities of disintegration&synthesis)

The simplest type of paradoxical singularity is ${}^B_A Sprt^A$, then: $pa self A = {}^A_A Sprt^A$,

$$\begin{array}{c}
B \\
A
\end{array}
\begin{array}{c}
A \\
B
\end{array}
\begin{array}{c}
A \\
A
\end{array}
\begin{array}{c}
A \\
A
\end{array}$$

(action Q)⁻¹Dprt action Q (where Q is any action), (action Q)⁻¹Dprt action Q ,

$$\begin{array}{c}
B \\
A
\end{array}
\begin{array}{c}
Subject of \equiv \\
A \\
B
\end{array}
,
\begin{array}{c}
A \\
A
\end{array}
\begin{array}{c}
Subject of \equiv \\
A \\
A
\end{array}
, pa \equiv = \equiv(\equiv)\equiv^{-1},$$

Subject of $\equiv$ Subject of $\equiv$

$$\begin{array}{c} self \\ / \quad \backslash \\ piS = (paself) - (|||) , self ||| paself \text{ for any } C \text{ for any } A, \text{ where } A \text{ can be by } self, |||, \\ \backslash \quad / \\ (pa|||) \end{array}$$

$$\begin{array}{c} paself \\ / \quad \backslash \\ paself \text{ etc; } pi1S = (paself) - (pa|||) , \\ \backslash \quad / \\ (pa|||) \end{array}$$

$\frac{(the \text{ set of all sets})}{|| \text{ the set of all sets } ||} |||$ (an element that is not included in any capacity (set)) etc. May consider $pf(n, paself) = pa^n selfA = pa(pa(\dots(paselfA)\dots))$, $pf(\alpha, paself)$, $pf(\infty, paself)$ $pf(paself, paself)$ etc and rows by $pa^n selfA$.

Let us introduce a measure of singularity μ_{si} , which sets the maximum level of singularity as 2, and the minimum, i.e., regularity, as 0. Then, in

particular, for binary relations: $\mu_{si} = 3/2$ for $A|||A^{-1}$, $Sprt_x^{A, A^{-1}}$ (x - point) or

for $A|||(-A)$, $Sprt_x^{A, -A}$, $\mu_{si} = 1$ for $A|||B$, $Sprt_x^{A, B}$ (x - point), $\mu_{si} = 2/3$ for Drt

Q

Q , $\mu_{si} = 1/2$ for $A|||A$, $Sprt_A^A$. Paself can have protected "holes" for inputs

Q

and outputs of energy fibers. You can introduce ordered types paself, eg -

$\xrightarrow{{}_A^A Sprt_A^A}, \xleftarrow{{}_A^A Sprt_A^A}, \rightarrow$ sets the direction from action ${}_A^A Sprt$ to action $Sprt_A^A$, $\leftarrow$

sets the direction from action $Sprt_A^A$ to action ${}_A^A Sprt$.

Remark.A.5.1 As a rule $|||$ attracts (forms, induces) the external self "around" itself.

Remark.A.5.2. Flame and water are characterized by changes (fluidity) that provide induction that generates the corresponding paselfs, which by the way can be used by $SmnSprt$ ($paSmnSprt$), in particular for the exit through the middle level of flame and water to the upper one. His identifier, having connected to

their middle level and using the energy, is able to activate SmnSprt (paSmnSprt) to obtain what is needed. For this, you can use the grown bioidentifier (in particular, the simplest ones - neurons). One paself it can "cling" to the other and thereby obtain a new singularity at the upper level or exit to such a ready singularity with manifestations coming out of it. Since ||| is connected with the upper level, then the identifiers must be from there. ||| always raises the levels up. Everything (anything) is a product of |||. Any self-type structure can be presented

as a "hole" in the accumulation. May consider a new dynamic operator $\begin{matrix} E \\ Q \\ F \\ G \end{matrix} 8_{prt}$

$\begin{matrix} A \\ B \\ C \\ D \end{matrix}$, where A fits into B, F fits into G, D is forced out from C, Q is forced out from

E; A, B, C, D, g_1 , g_2 may also be fuzzy. May consider the characteristics accumulation of any objects or process. In fact, we try to consider hierarchy of energies in the Universe, but the accumulation isn't common property of these energies. The accumulation of energies is in some process in the Universe, for example, the process of human spiritual development allows such a possibility, and when constructing pseudo-living energies. It is possible to significantly expand the horizons of science, in particular physics, by studying the subtle energies in the Universe.

A.8 Singularities algebra

You can define operations for the same type singularities and study their algebras. But our task for now is limited to considering certain types of singularities presumably corresponding to certain types of subtle energy.

Let us introduce the following notations: $A*B = \text{Sprt}_B^A$, $A^2 = \text{self } A = \text{Srt}_A^A$,

$$A^{\frac{3}{2}} = \text{Drt}_A^A = \text{self}_A^{\frac{3}{2}}(A), A^3 = \text{Self}^2 A, \dots, A^{\frac{3n}{2}} = \text{Drt}_{A^n}^{A^n} = \text{self}_A^{\frac{3n}{2}}(A), A^{n+1} =$$

$$\text{Self}^n A, \text{self}^{\min(n,m)}(A) \in \text{Srt}_{A^m}^{A^n} = \text{self}_m^n(A), \text{self}^{\min(n,m,k)}(A) \in \text{Drt}_{A^k}^{A^n} = \text{self}$$

$$f^{\frac{n+m+k}{2k}}(A), \dots \text{ etc. Similarly for negative powers, starting with } A^{-1} = \text{self}^{-1} A$$

$$= {}_A^A \text{Sprt}, A^{-2} = \text{self}^{-2} A, A^{-\frac{3}{2}} = {}_A^A \text{Dprt} \text{ etc.}$$

Remark A.6.1. $\text{Self}^2 A$ can be considered in the following options: a) $\text{self}^2 A$ as the set of all self-sets of a set A, b) $\text{self}^2 A = \text{Sprt}_{\text{self } A}^{\text{self } A}$ can be interpreted as the containment of one more self-set of set A etc.

There is no commutativity here: $A*B \neq B*A$. We can consider operator functions: $e^A = 1 + \frac{A}{1!} + \frac{A^2}{2!} + \frac{A^3}{3!} + \dots$, $(A+B)^n = \sum_{k=0}^n \binom{n}{k} A^k B^{n-k}$, $(1+A)^n = 1 + \frac{Ax}{1!} + \frac{n(n-1)A^2}{2!} + \dots$, etc.

You can consider a more “hard” option: $A*B = \text{PSprt}_B^A$, where PSprt_B^A – operator, containing A in every element of B, $A^2 = \text{PSelf } A = \text{PSrt}_A^A$, $A^3 = \text{PSelf}^2 A$, ..., $A^{n+1} = \text{PSelf}^n A$, $\text{PSelf}^{\min(n,m)}(A) \in \text{PSrt}_{A^m}^{A^n} = \text{PSelf}_m^n$

(A), ...etc. There is no commutativity here: $A*B \neq B*A$. We can consider operator functions: $e^A = 1 + \frac{A}{1!} + \frac{A^2}{2!} + \frac{A^3}{3!} + \dots$, $(A+B)^n = \sum_{k=0}^n \binom{n}{k} A^k B^{n-k}$, $(1+A)^n = 1 + \frac{Ax}{1!} + \frac{n(n-1)A^2}{2!} + \dots$, etc.

Let's introduce $\sqrt{\text{self}}$ as the result of the decision of the equation $\text{Srt}_x^x = \text{self}$, that is $x = \sqrt{\text{self}}$, $\sqrt[3]{\text{self}}$ as the result of the decision of the equation $\text{Dprt } x = \text{self}$, that is x

$x = \sqrt[3]{self}, \sqrt[n]{self^m}$ as the result of the decision of the equation $x^{\frac{n}{m}} = self$, $self^\alpha$ as the result of the decision of the equation $x^{\frac{1}{\alpha}} = self$, where α is any number, in particular, a negative number etc. The following equality is true:

$$self^{-\alpha}(self^\alpha G) = self^\alpha(self^{-\alpha} G) = G (*),$$

you can, for example, specify $self^{-\alpha}$ by definition through (*).

The following equality is true:

$self^\beta(self^\alpha G) = self^\alpha(self^\beta G) = self^{\alpha+\beta} G \forall \alpha, \beta$. In this way one can introduce self-level space. The following operation may take place: $q \uparrow \downarrow q + {}^A Sprt_A^A =$

$${}^{A+q}_{A+q} Sprt_{A+q}^{A+q}.$$

Similar algebras can be constructed for other singularities, in particular, for oself, $\uparrow \downarrow$, $|||$, partial self-type singularities etc. For example, $A ||| (|||) B = A (|||)^2 B$, $(|||)^\alpha$ as the result of the decision of the equation $x^{\frac{1}{\alpha}} = |||$. $(|||)^\alpha * (|||)^{\frac{1}{\alpha}} = (|||)^{\frac{1}{\alpha}} * (|||)^\alpha = |||$ etc.

A.9 Types, forms internal and external, structures of self and $|||$

Let us introduce the following notations: $self_B A$ is self A by form B, $C |||_B A$ is $|||$ A with C by form B. You can consider any functions, operators: for example, $g(self_B A, d)$, $self_B A(B(self_B A, d), q)$ etc. If usual self can be associated with the action "in a circle" on itself, then the action "in a double circle in the form of an eight" on itself can be associated with a 2-self, the action "in a triple circle in the form of 3 circles intersecting only at one point" on itself can be associated with a 3-self etc.

A set B containing itself as N elements will be denoted by $N self B$. $(\varphi) self A$ containing itself as A^φ , $(\varphi) paself A$ containing itself as $A^\varphi ||| A^{-\varphi}$, $(f(\varphi)) self A$ containing itself as $f(A, \varphi)$, $(f(\varphi)) paself A$ containing itself as

$f(A, \varphi) ||| f(A^{-1}, \varphi)$. The example of difference between the internal and external form of the same self: the external form of the self of a living organism is represented by an energy cocoon and, at the object level, by a

physical body, and the internal form of the self of a living organism is represented by numerous DNA and RNA.

$q \uparrow \downarrow q$ has self-structure for q and paself-structure by directions. An atom has paself for electric-structure, self-structure for by electron orbitals, $|||$ by nucleons.

Likewise, any other object (process) can have different singular characteristics.

$oself A = {}^A_Sprt$ can be interpreted also as $(-self)A$.

For example, you can study the "side" version of self: $sideself A$ is A next to the side of itself.

The hierarchy of singularities of one can be included in the hierarchy of singularities of another, for example, the hierarchy of singularities of the fruit of a tree is included in the hierarchy of singularities of a tree, the hierarchy of singularities of a person is included in the hierarchy of singularities of the Universe etc. $self \text{ of the fruit } \subset self \text{ of the tree } \subset self \text{ of the Universe}$.

$self_B A$, $self A$ can be not only for objects (processes) but also for their characteristics, structures etc.

Remark A.7.1. Classical science forms its abstractions as the intersection of properties of objects (processes), our approach to the formation of singularities is through $|||$.

Remark A.7.2. All dynamic operators and examples with them in [1]-[15] are examples of the construction of pseudo-living energies.

Remark A.7.3. $self$ is resting point of accumulation process. A living organism is protected from further accumulation of energy until its $self$ is destroyed. Some fearless people, extending the accumulation of energy of their organism and reaching other states of awareness, stop the accumulation of energy of their organism in time so as not to lose protection. In the limit, "they turn on all states of awareness at once and move to another higher level of energy accumulation, removing protection at the previous level: "burning with fire from within." Here (in this work) we mean by accumulation: an increase in capacity due to an increase in level.

Remark A.7.4. Supercoiling of DNA before its doubling shows the role of "folding" into a higher level of self to perform super actions.

Remark A.7.5. As one of the options $A|||B$ can be tried to be interpreted as a generalization (1.1): by the form

$$(2(1, (2,1)),1) \quad (9.1),$$

or (1.1.4.1), (1.1.4.2),

and the corresponding self^2 by the form

$$(1, (2(1,(2,1)),1)) \quad (9.2),$$

for $\text{pa}|||$ by the form

$$(2((1, (2(1,(2,1)),1))), 1) \quad (9.3)$$

or (1.1.4.3), (1.1.4.4).

$\text{self}^2 A = \text{pa self} A = {}^A_S \text{prt}_A^A$ can be tried to interpret in the following ways,

depending on the choice of interpretation of the operation for $\text{Sprt}_B^A = A * B$ or

$\text{Sprt}_B^A = A \neq B$, as $\text{self} A * \text{self}(A)^{-1}$ or $\text{self} A * \text{self}(-A)$ respectively. $\text{self} A$ does not

mean accumulation for A, but means a new, higher level of energy for A due to its new accumulative structure. There are an infinite number of qualitatively

different other variants of accumulation. We simply proceed from our usual 2 -

interpretations of the world. Therefore, we limit ourselves to the formula $A || | B$.

If through 3 - interpretation, then we can consider the
$$\begin{array}{c} A \quad B \\ |||_3 \\ C \end{array}$$
 - accumulation

and its degenerations - self-type structures, for example
$$\begin{array}{c} A \quad A \\ |||_3 \\ A \end{array}$$
 etc. It is also

possible through 4 - interpretation etc. Namely, self-type structures are the

structures of self-organization. May consider type of $||| : A - ||| = ||| A |||$ for any A,

accumulation- $(\text{pa}|||)D = D(\text{pa}|||)\text{accumulation}(\text{pa}|||)D$ for any D, pa self -

accumulation, accumulation $|||C$ for any C, $\text{self} ||| Q$ for any Q,

$$\left(\begin{array}{c} \dots \\ \text{parelf } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \text{singelf } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \\ \text{subtle energy accumulation of A paradoxical upper level } (pa|||) \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \\ \text{subtle energy accumulation of A paradoxical mid-level} \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \\ / \\ \text{subtle energy of } |||^{-1} \quad \quad \quad \backslash \\ \overline{\overline{\overline{A}}} \quad \quad \quad \overline{\overline{\overline{A}}} \\ \left(\overline{\overline{\overline{A}}} \right) \quad \quad \quad \left(\overline{\overline{\overline{A}}} \right) \\ \\ \text{ordinary energy exhibited by an accumulation of A} \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \leftarrow \text{the raw energy accumulation of A} \left(\text{decignation} - A \right) \end{array} \right) \text{ is}$$

levels accumulation of D etc.

Remark A.7.6. self-induction: when the induction changes, we obtain an induction on itself.

Remark A.7.7. May consider the manifestation of self-operator A (subject (master) of operator A) according to B. May consider the manifestation of self-action Q (subject (master) of action Q) according to C. May consider the manifestation of self-D (subject (master) of D) according to R for any D, R.

Remark A.7.8. Energy manifests itself through actions, objects ("gives birth" to actions, objects). Subject ||| in the cocoon of a living organism is the assemblage point. It also has its own subject (master), who carries out its necessary adjustment, control. The "tipper" that gives energy to a living organism has the type $\overline{\text{self} - \text{oself}}$.

Remark A.7.9. One can try to interpret it in a very simplified way self-level of a living organism as self(oself- self). Then one can try to interpret it in a very simplified way self-level of energy-producing beams for living organisms as $\overline{\text{self} - \text{oself}}$. Then self-level of energy others objects - self.

Remark A.7.10. Let us introduce some generalizations of |||: a) $(m \rightarrow n)|||$, $||| = (2 \rightarrow 1)|||$, b) $(A \rightarrow B)|||$ for any A, B, c) $\begin{matrix} A & B \\ & |||, \dots, (\forall Q)||| \\ C \end{matrix}$ etc.

A.10 Types, forms internal and external, structures of potential self, potential ||| and others potential singularities

Self characterizes by the average level, at the lower level it can only be in potential form, for example, DNA in living organisms. Denotes a potential self as poself, potential ||| as po|||. Self-sets, self-(material objects) can only be classified on object level as a potential selves. Denotes a potential self, containing itself potentially, but its potentiality does not contain its potentiality, as p1self. It is also possible to consider any other types of potential singularities, all sorts of potentially singular structures, forms, degrees, characteristics. $\text{poself}_A = A(\text{p}|||)A$. May consider $\text{po}(\text{po}(\dots(\text{poself}_A)\dots))$.

One can try to simplify the energy cocoon of a living organism with the expression $\text{paself}_A = {}^A_S \text{prt}_A^A$, then we can try to simplify the assemblage point on the energy cocoon using expression $\xrightarrow{{}^A_S \nabla \text{prt}_A^B}$ for a female and $\xrightarrow{{}^A_S \Delta \text{prt}_A^B}$ for a male, where B are an external energy fibers of the Universe, ∇ here means the shape of the assemblage point in the form of a cone, facing "funnel" upwards, and Δ - "funnel" downwards, $\rightarrow$ sets the direction from action ${}^A_S \text{prt}_A^A$ to action prt_A^B ; you can try to simplify the energy gap on the energy cocoon at the level below the navel on the energy cocoon with expression $\xleftarrow{{}_{InB}^A \text{prt}_A^A}$, where InB are an internal energy fibers, $\leftarrow$ sets the direction from action prt_A^A to action ${}_{InB}^A \text{prt}_A^A$, similar, but to a lesser extent than this energy gap, can be imagined for the energy manifestations of the eyes. To obtain energies of a higher level, it is necessary to use level accumulation structures.

In our dynamic mathematics, instead of repeating identifiers of specific material objects, energies, special singularities are used, their characteristics are another matter.

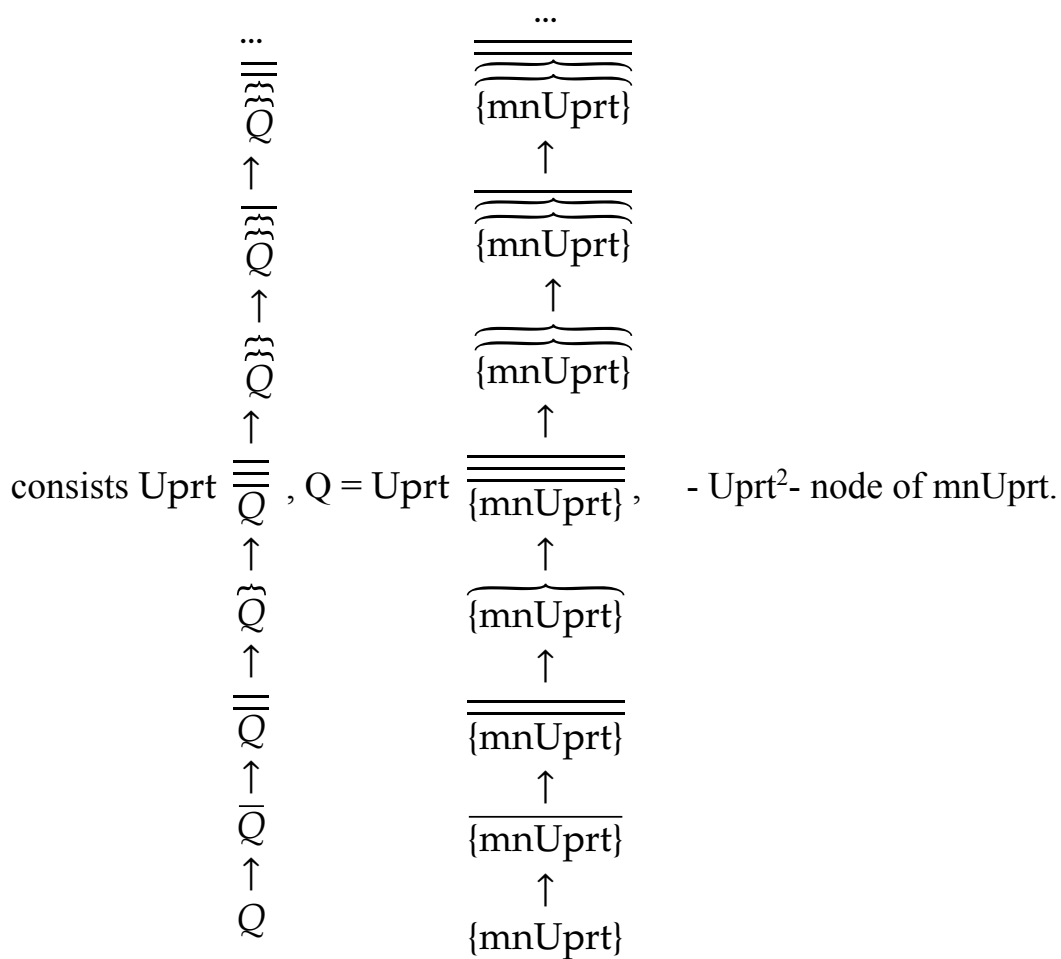
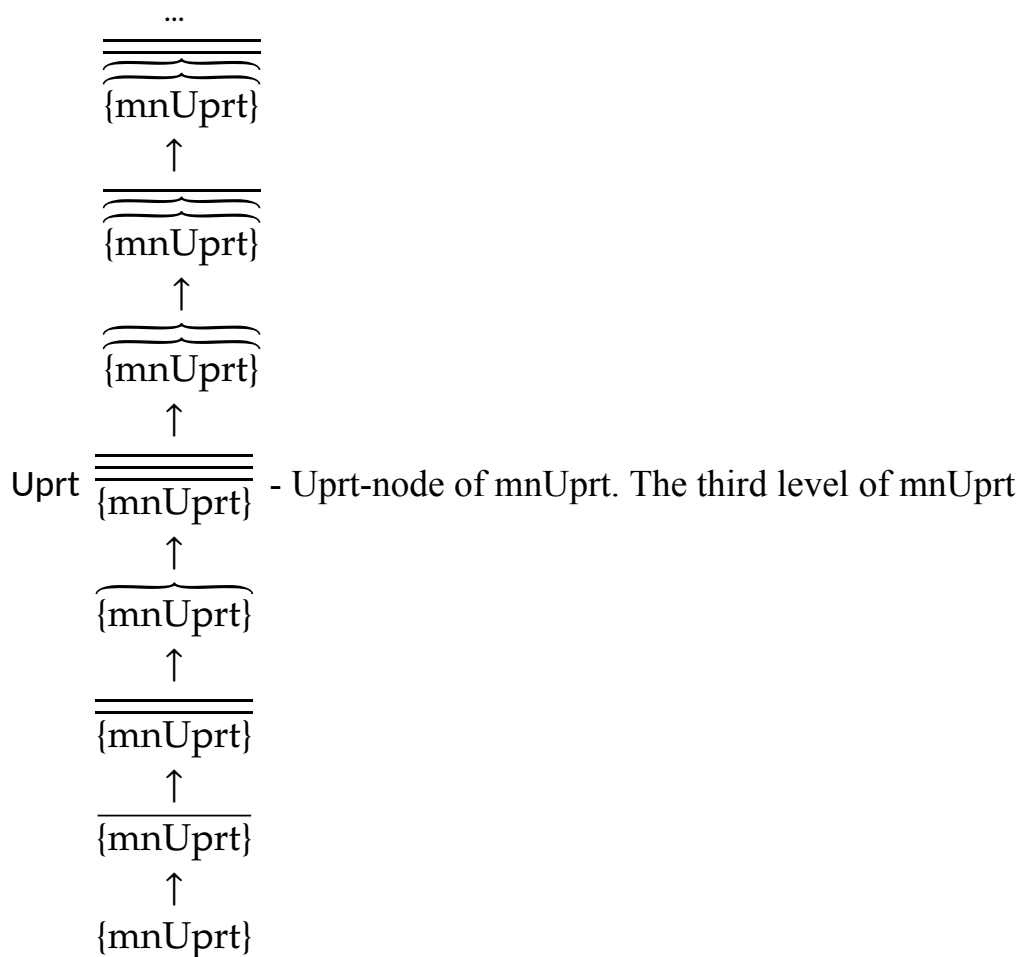
A.11 Some available types of "pseudo-living energy"

- a) UHF with amplitude close to zero, b) short pulse laser pulses, c) UHF with twisting around a hollow wire, d) ultraviolet, e) in the form of ball

lightning, h) vortices from UHF with almost zero amplitude, q) electric arc with almost zero amplitude, f) UHF by a "twisted" wire with minimal loops, made using nano-technology, by manipulating frequencies, it is possible to "construct" various pseudo-living energies, g) for ultraviolet similar waveguide, r) vortices from ultraviolet, p) UHF with amplitude close to zero & with direct current, then may use the additional to the main normal coding through 0 and 1 to the main, w) through multiple cycles to ∞ , u) through multiple returns of programs to themselves etc.

A.12 Uprrt-networks

A. Galushkin's comprehensive monograph [19] covers all aspects of networks, but traditional approaches go through classical mathematics, mainly through the usual correspondence operators. Here we consider a different approach - through a new mathematical process with containment operators, which, although they can be interpreted as the result of some correspondence operators, are not themselves correspondence operators. Containment operators are more convenient for networks. Also, the main emphasis was placed on using processors operating using triodes, which are generally not used in Uprrt-networks. Uprrt networks (SmnUprrt) are a Uprrt structure that can be built for the required weights, the implementation of which will be carried out using a short-pulse laser to generate attosecond pulses of light. Uprrt-OS (Uprrt operating system) uses Uprrt-coding and Uprrt-translation. In the first one, coding is carried out through a 2-dimensional matrix-row (a, b), where the number b is the code of the action, and the number a is the code of the object of this action. Uprrt-coding (or self-coding) is implemented through a matrix consisting of 2 columns (in the continuous case, two intervals of numbers). Here, the source encoding is used for all matrix rows simultaneously. Uprrt-translation is carried out by inversion. In this case, self-type coding and self-type translation by (A.2.114) or (A.2.114.1), (A.2.115), (A.2.116) will be more stable. The set of the target weights $f =$



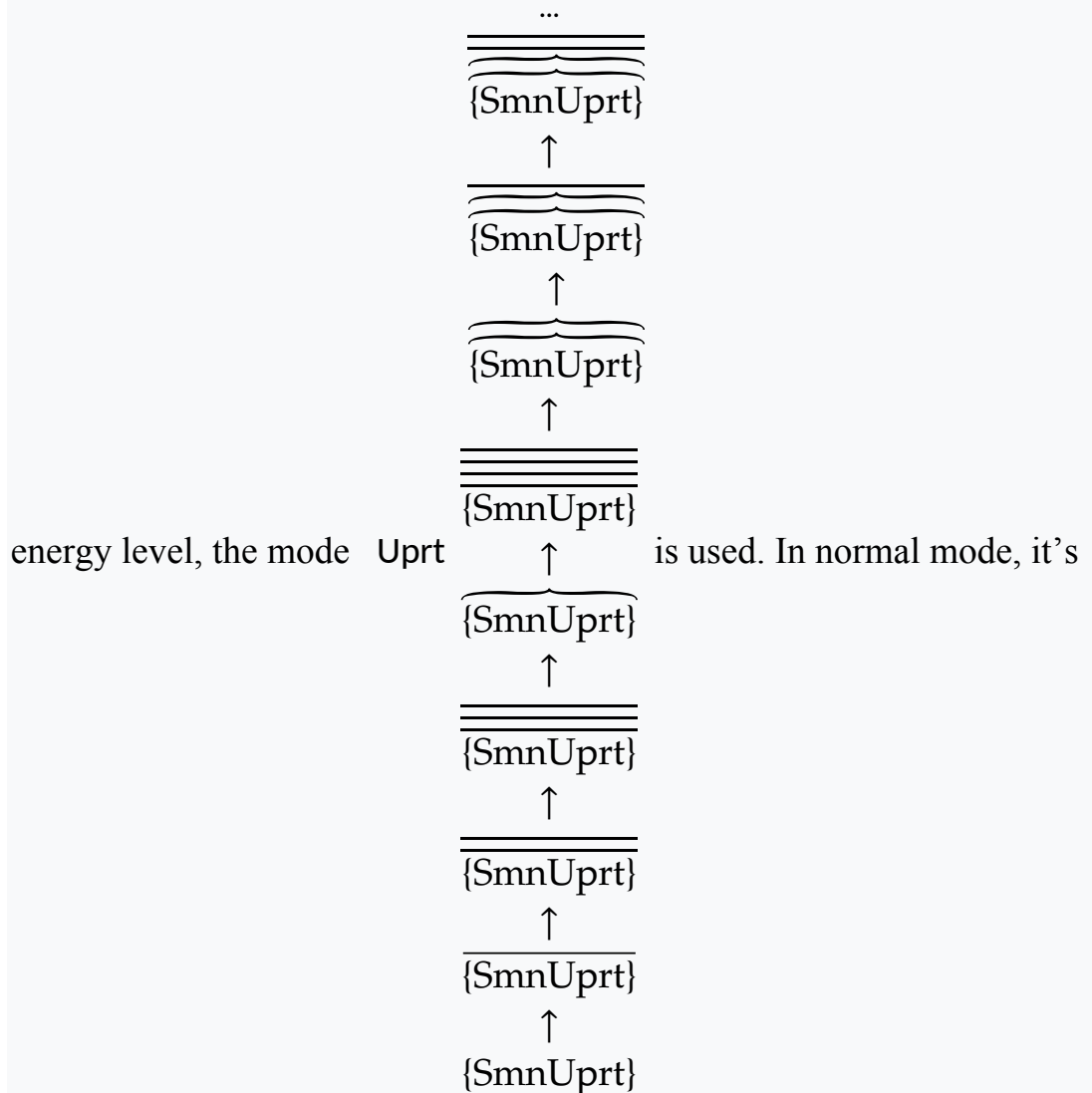
The target structure or the corresponding program enters the target unit using a short-pulse laser to generate attosecond pulses of light. After that, all networks or parts of them are activated according to the indicative goal. It may appear that we are leaving the network ideology, but these networks are a complex hierarchy of different levels, like living organisms.

Remark A.10.1. Traditional scientific approaches through classical mathematics make it possible to describe only at the usual energy level. Here we consider an approach that makes describing processes with finer energies possible. mnUprt contains ueprograms –executing program in Uprt-OS. Uprt-OS (or Self-type of Uprt-OS) is based on Uprt-assembly language (or Self-type of Uprt-assembly language), which is based on assembly language through Uprt-approach in turn, if the base of elements of Uprt-networks is sufficient. The reprograms are in Uprt-programming environments (or Self-type of Uprt programming environments), but this question and Uprt-networks base will be considered in the following articles. In particular, ueprograms may contain Uprt- programming operators. In mnUprt cores, the constant memory Uprt with correspondent ueprograms depending on mnUprt.

The OS (operating system) and the principles and modes of operation of the Uprt-networks for this programming are interesting. But this is already the material for the next publications.

Here is developed a helicopter model without a main and tail rotors based on Uprt – physics and special neural networks with artificial neurons operating in normal and Uprt-modes. Let's denote this model through SmnUprt. To do this, it's proposed to use mnUprt of different levels; for example, for the usual mode, mnUprt serves for the initial processing of signals and the transfer of information to the second level, etc., to the nodal center, then checked. In case of an anomaly - local Uprt–mode with the desired "target weight" is realized in this section, etc, to the center. In

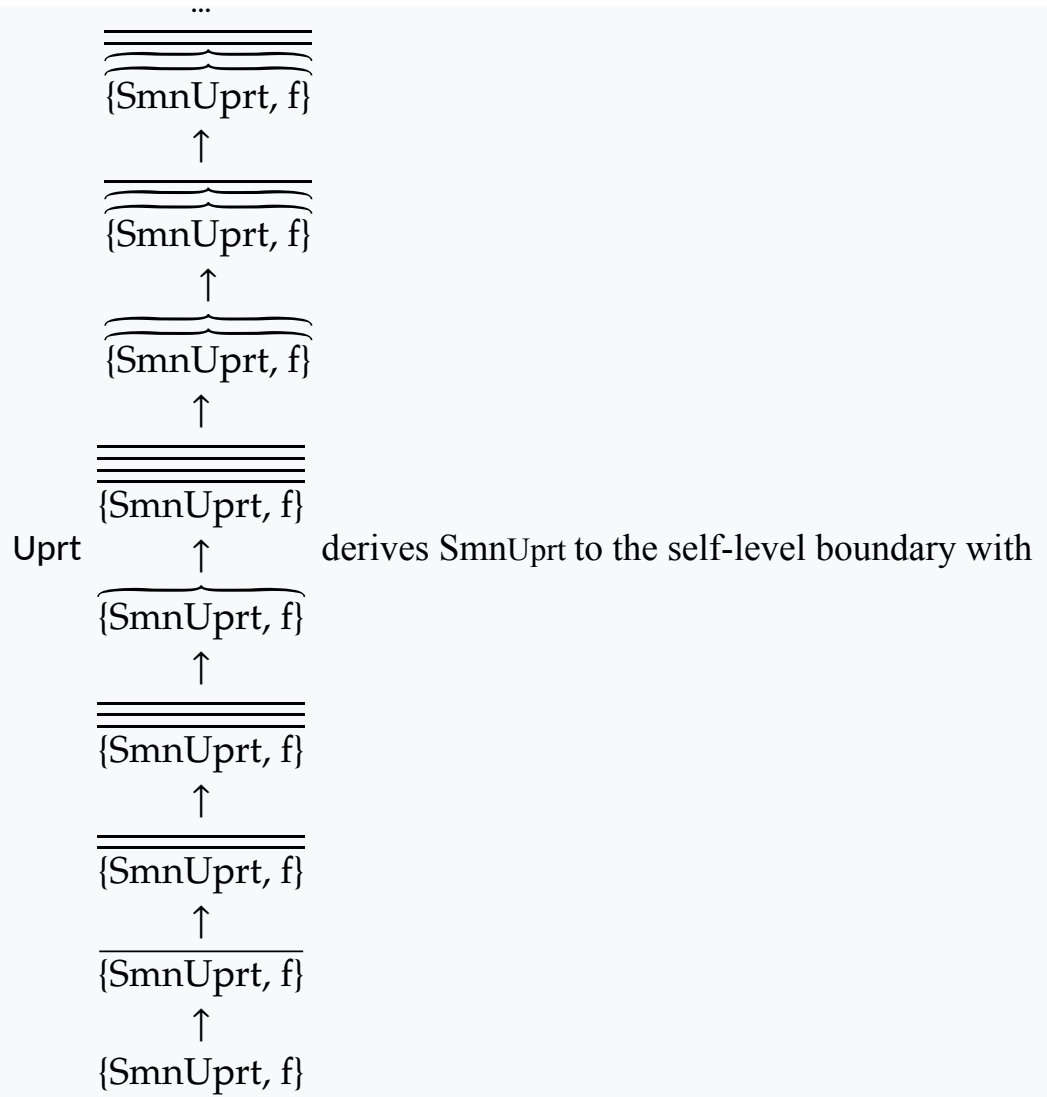
the case of a monster during the test, SmnUp_{prt} is activated with the desired "target weight" using a short-pulse laser to generate attosecond pulses of light. Here are realized other tasks also. To reach the self-



planned to carry out the movement of SmnUp_{prt} on jet propulsion by converting the energy of the emitted gases into a vortex to obtain additional thrust upwards. For this purpose, a spiral-shaped chute (with "pockets") is arranged at the bottom of the SmnUp_{prt} for the gases emitted by the jet engine, which first exit through a straight chute connected to the spiral one. There is drainage of exhaust gases outside the SmnUp_{prt}. SmnUp_{prt} is represented by a neural network that extends from the center of one of the main clusters of Up_{prt} - artificial neurons to the shell, turning into the body itself. Above the operator's cabin is the central core of the neural network and the target block, responsible for performing the

"target weights" and auxiliary blocks, the functions and roles of which we will discuss further. Next is the space for the movement of the local vortex. The unit responsible for SmnUprt's actions is below the operator's cab. In Uprt – mode, the entire network or its sections are Uprt – activated to perform specific tasks, in particular, with "target weights" using a short-pulse laser to generate attosecond pulses of light. In the target, block used Uprt -coding, Uprt-translation for activation of all networks to "target weights" simultaneously, then –the reset of this Uprt-coding after activation using a short-pulse laser to generate attosecond pulses of light.

Unfortunately, triodes are not suitable for Uprt -neural networks. In the most primitive case, usual separators with corresponding resistances and cores for weprograms may be used instead triodes since there is no necessity to unbend the alternating current to direct. The Uprt-operative memory belt is disposed around a central core of SmnUprt. There are Uprt-coding, Uprt-translation, and Uprt-realize of zepograms and the programs from the archives without extraction, Uprt-coding and Uprt-translation may be used in high-intensity, ultra-short optical pulses laser of Nobel laureates 2018-year Gerard Mourou, Donna, Strickland. Uprt – structure or an reprogram if one is present of needed «target weight» are taken in target block at Uprt – activation of the networks.



target weight f . Activation of the entire network is implemented to perform “target weights” using a short-pulse laser to generate attosecond pulses of light.

You can also try to use higher frequency alternating current and ultraviolet light, which can work with Upert– structures in Upert–modes by its nature to activate the networks or some of its parts in Upert–modes and locally using Upert–mode to perform local tasks. Above high frequently alternating current go through mercury bearers. That’s why overheating does not occur. The pulse structure of a short-pulse laser for generating attosecond light pulses is close to $(a \uparrow I \downarrow^a) \uparrow I \downarrow (\downarrow_a \downarrow I^{\uparrow a})$, i.e., type $^aSprt_a^a$, and upon activation it will be induction of same type self, which is necessary for the formation of a local assembly point d_r of external

energy fibers El^{d_r} . Its locality (position of the assembly point r) will be determined by the structure of the magnetic induction of the short-pulse laser pulse for generating attosecond light generation through Targetblock [15] SmnUp r_t . Execution tw will be achieved through setting the assemblage point in the desired position r_1 to engage the appropriate external energy: $Sprt_{d_r}^{r Sprt_{r_1}^{d_r}} [18]$.

A.13 Some aspects of directly parallel operation of neural networks

To design a model of the simplest neural network SmnSprt, you can use a model of the insect CNS. Targetblock will respond to Neurokil. In addition to the material carrier ||| (we will call it constant or potential |||), it is desirable to use a virtual one |||. It is also possible to use virtual connectors, virtual programs, virtual program operators etc. Here you need to use operational |||. With the help of programs initiating activation and self-activation SmnSprt will go to the upper levels and initiate execution on them target weights. Let's introduce the designations: CNS_A -CNS of A, $SmnSprt_A$ - SmnSprt on the basis of CNS_A .

Lower level: normal direct parallel work of neurons. Middle level: activation for creation self-type energies. Upper level: use of self-activation (subject (host) of activation) for |||.

A program operator that specifies the format of the virtual subject's position of |||:
 $r_i \equiv \{\} Sprt.$

A program operator that specifies the format of the virtual subject of |||:
 $d_{r_i} \equiv Sprt_{\{\} Sprt}^{\{\}.$

Let's consider ||| from outside and inside at the same time by program operator

$$d_{r_i} \equiv Sprt_{\left\{ d_r \left(E_{in}^{l d_{r_i}} \right) \right\} Sprt}^{\left\{ E_{l}^{ex d_{r_i}} \right\} \{ SmnSprt \} }$$

or

$$d_{r_i} \equiv \text{Sprt}^{\{E^{ex}l^{d_{r_i}}\}}_{\{self-SmnSprt\}} \text{Sprt}_{\{d_{r_i}self(E_{in}l^{d_{r_i}})\}}$$

for *self – SmnSprt*.

A program operator Energy shell for *SmnSprt* has the format

$$\text{Energy shell} \equiv \text{Sprt}^{\text{Energy shell}}_{\text{Sprt}^{\text{Energy shell}}_{\text{Energy shell}}}$$

$$\text{ffg}(r, a(E_q)) = \text{ffSprt} \left\{ \begin{array}{c} q \left((a \uparrow I \downarrow^a) \uparrow I \downarrow (\downarrow_a I^{\uparrow a}) \right) \\ W_q f \text{Sprt}^{E_q}_{q \left((a \uparrow I \downarrow^a) \uparrow I \downarrow (\downarrow_a I^{\uparrow a}) \right)'} f \text{Sprt}^{\{E^{ex}l^{d_r}\}}_{d_r(E_{in}l^{d_r})} \end{array} \right\} (**_{A.11})$$

μ
 t_0

$(a \uparrow I \downarrow^a) \uparrow I \downarrow (\downarrow_a I^{\uparrow a})$ -internal energy [18] of *SmnfSprt*, q - a gap in the energy cocoon of *SmnfSprt*, r -the position of the assemblage point d_r on the energy cocoon of *SmnfSprt*, W_q - energy prominences from the gap in the cocoon of a living organism, E_q -external energy entering the gap in the cocoon of *SmnfSprt*, $E^{ex}l^{d_r}$ - a bundle of fibers of external energy self-capacities from outside the cocoon, collected at the point of assembly of the cocoon of *SmnfSprt* at time t_0 , $E_{in}l^{d_r}$ - a bundle of fibers of external energy self-capacities from inside the cocoon, collected at the point of assembly of the cocoon of *SmnfSprt* in the same position r of the assemblage point d_r . d_r (the virtual subject of |||) is the subject of identifying the energy fibers of the subtle energy of the Universe in position r both outside and inside the cocoon.

Energy of self-*SmnfSprt*:

$$\text{ffpg}(r, a(E_q)) = \text{ffSprt} \left\{ \begin{array}{c} q \left((a \uparrow I \downarrow^a) \uparrow I \downarrow (\downarrow_a I^{\uparrow a}) \right) \\ W_q f \text{Sprt}^{E_q}_{q \left((a \uparrow I \downarrow^a) \uparrow I \downarrow (\downarrow_a I^{\uparrow a}) \right)'} f \text{Sprt}^{\{E^{ex}l^{d_r}\}}_{d_r(self(E_{in}l^{d_r}))} \end{array} \right\}$$

μ
 t_0

(***)_{A.11}).

Right-hand sides of formulas ($**_{A.11}$), ($***_{A.11}$) can be interpreted as fSrt-program operators or programs.

May consider the next programs or program operators initiating activation and

self-activation SmnSprt: $Sprt_{\text{activation with tw}}^{SmnSprt}$, $Sprt_{\text{activation with tw}}^{SmnSprt}$

$Sprt_{\text{activation with tw}}^{SmnSprt}$, in particular, for shifting the virtual subject ||| and fixing it in the desired position.

Even more simple network SmnSprt by ion channels of bacteria.

Appendix

Self-function, like self-operator, is its own argument. For example, self-functions of living organisms: DNA division, cells etc. In mathematics self-function f can be

attempted to be displayed as a dynamic operator: $Dprt_{\ddot{f},x} f$, where x is its usual

argument, $\ddot{f}$ is interior double of f , self¹-function f can be attempted to be

displayed as a dynamic operator: $(f)^{-1}Dprt_{\ddot{f},x}$, paradoxical self-function (designation:

paself-function) f , like paself-operator, can be attempted to be displayed as a

dynamic operator: $(f)^{-1}Dprt_{\ddot{f},x} f$. The potential self-function, like potential self-

operator, is its own argument potentially: by its elements that can generated it etc.

Remark W. "Invisibility" of subtly energies can be explained using the example of a wave with a propagation law $w(t, k) = c(k)\sin(kt)$, $\lim_{k \rightarrow \infty} c(k) = 0$, $\lim_{k \rightarrow \infty} \frac{c(k)}{k^2} = Q \neq$

0 : $\frac{d^2w(t, k)}{dt^2}$ responsible for the force and energy will be a normal (non-zero) value,

unlike the amplitude of the wave itself, which will tend to zero, when $k \rightarrow \infty$.

When the devices cannot record the wave due to its very small amplitude, the wave will act. Moreover, in the limit we obtain a singularity of the type $\uparrow I \downarrow_{-Q}$.

Remark W1. Information is the interpretation of subtle energies - one of their manifestations. Direct knowledge is the interpretation, in particular, of external singularities through internal ones.

Remark W2. Protection against virus A: paself(A)

Remark W3. Based on SmnSprt [13], using grown elements of the central nervous system similar to the human central nervous system (in particular, neurons), one can try to create an Energy Internet to connect to subtle energies.

Remark W4. Any self-object A can be interpreted as a kind of equation, a problem with an unknown A, and vice versa, any equation, any problem can be presented as a definition of a self-object by |||.

Remark W5. Solving problems (equations): 1) by $\text{problemA}(x) \text{Sprt}_x$, 2) by

$\frac{\text{problemA}(x)}{\text{problemA}(x)} \text{Sprt}$ or $\text{problemA}(x) |||^{-1} \text{problemA}(x)$, x - the desired value, here

removing self with $\text{problemA}(x)$, 3) $\frac{\text{problemA}(x)}{\text{problemA}(x)} \text{Sprt}_{\text{problemA}(x)}^{\text{problemA}(x)}$ or

$\text{problemA}(x) \text{Sprt}_{\text{problemA}(x)}^x$ - paradoxical solving, SmnSprt ||| $\text{problemA}(x)$, the manifestation of this singularity should give x (so-called "direct knowledge").

Similarly for the study of other objects and material processes too etc.

Remark W6. For the development and use of directly parallel algorithms, programs, directly parallel processors and directly parallel RAM are required. For example, the DNA double helix is a directly parallel program and, moreover, a self-program.

Remark W7. Energy of a living organism:

$$\text{ffg}(r, a(E_q)) = \text{ffSprt} \left\{ \begin{array}{c} q \left(\begin{array}{cc} a & a \\ \mu_1 \text{ffSrt} \mu_1 & \\ a & a \end{array} \right)_{W_q} f \text{Sprt}_{q \left(\begin{array}{cc} a & a \\ \mu_1 \text{ffSrt} \mu_1 & \\ a & a \end{array} \right)}^{E_q}, f \text{Sprt}_{d_r \left(\begin{array}{c} \{E_{ex} l^d_r\} \\ E_{in} l^d_r \end{array} \right)} \end{array} \right\} (**_{2.1}).$$

μ
 t_0

$\begin{array}{cc} a & a \\ \mu_1 \text{ffSrt} \mu_1 & \\ a & a \end{array}$ - internal energy of a living organism, q- a gap in the energy cocoon of a living organism, r-the position of the assemblage point d_r on the energy cocoon

of a living organism, W_q - energy prominences from the gap in the cocoon of a living organism, E_q -external energy entering the gap in the cocoon of a living organism, $E^{ex}l^{d_r}$ - a bundle of fibers of external energy self-capacities from outside the cocoon, collected at the point of assembly of the cocoon of a living organism at time t_0 , $E_{in}l^{d_r}$ - a bundle of fibers of external energy self-capacities from inside the cocoon, collected at the point of assembly of the cocoon of a living organism in the same position r of the assemblage point d_r . d_r is the subject of identifying the energy fibers of the subtle energy of the Universe in position r both outside and inside the cocoon.

Energy with measure of fuzziness μ_1, μ_2 of a living organism of a person:

$$ffpg(r, a(E_q)) = ffSprt \left\{ \begin{array}{c} q \left(\begin{array}{cc} a & a \\ \mu_1 ffSrt \mu_1 & \\ a & a \end{array} \right) \\ W_q fSprt_{q \left(\begin{array}{cc} a & a \\ \mu_1 ffSrt \mu_1 & \\ a & a \end{array} \right)}^{E_q} fSprt_{d_r \left(self(E_{in}l^{d_r}) \right)}^{\{E^{ex}l^{d_r}\}} \end{array} \right\}$$

μ
 t_0

(**2.1).

(**2.1), (**2.1) can be interpreted as ffSprt- program operators.

$$\overbrace{ffSprt} = ffSprt \left\{ ffpg(r_1, a(E_q)), ffpg(r_2, a(E_q)), \dots, ffpg(r_i, a(E_q)), \dots, ffpg(r_N, a(E_q)) \right\}$$

μ
 $\overbrace{ffSprt}$

(**2.2), N i

$$\overbrace{ffSprt} - \text{singularity of exit to a higher level. } r_i \text{ by its action} = ffSprt \begin{array}{c} \{ \} \\ \mu \\ \{ \} \end{array}, \text{ an}$$

$$\text{assemblage point } d_{r_i} \text{ by its action} = ffSprt \begin{array}{c} \{ \} \\ \mu \\ \{ \} \end{array}.$$

Remark W8. Directly parallel actions in any experimental science lead to self-type structures, for example, directly parallel evidence (directly parallel logic).

Remark W9. Let us introduce the notations of the $\|$ result - $\|rt$ and $\|$ process - $\|prt$. Let us introduce the notation of absolute chaos: $I \not\propto I$ Singularity $\forall \|no$ creates a field. The absolute change is the absolute chaos. The absolute rest is the emptiness.

Remark W10. Chronic, systemic diseases form in the body self-type harmful structures, for example, $Sprt_{disease A}^{disease A}$, that is why it is so difficult to cure them. To cure them needs $\frac{disease A}{disease A} Sprt$ or $\|^{-1} disease A$ etc.

Remark W11. Induction from change is self- change (change spirit).

Remark W12. Induction from $\|$ is self- $\|$ ($\|$ spirit).

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Availability of data and material

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Part VI. Applications for Physics

It is time for physicists to begin studying not only the manifestations of living energies, but also the living energies themselves, which are by no means expressed through objectivity and ordinary energies, although they are capable of manifesting themselves through a lower level - objectivity and ordinary energies. We, as mathematicians, offer a new corresponding apparatus for understanding nature and studying living energies. The capacity for uncertainty may be any. Such uncertainties can be conditionally designated: a) in probability theory through $\uparrow_0^1$ (by dynamic operator $Sprt_X^{xp}$, where X is distribution of a random variable $\{x\}$ with probabilities $\{p\}$), b) $\uparrow_{-1}^1$ for $\sin^\infty$, c) $\uparrow_B^A$ for $\int_B^A f$, d) $\uparrow_B^A$ for $|A|/|B|$, e) ${}^wD Sprt = |||_D^{-1} W$ etc. Any oscillation (wave) in the limit gives an uncertainty type $\uparrow_D^Q$. For effective results, you should use an uncertainty in total. May consider forms and structures of uncertainties, including with ∞ -uncertainties, self-emptiness, self-manifestation. It is our direct-accumulative approach through dynamic operators that allows us to construct the regular necessary uncertainties. Each subtle energy has its own uncertainties and vice versa. Using Smnsprt-construction of such energy uncertainties through the corresponding dynamic programs, we gain access to these subtle energies. A failure in a normal computer system will automatically switch to operation mode of Smnsprt. There are no failures in operation, paradoxes, there are new elements and new possibilities. The system will work like this: if B is not defined in the system, then this B will be defined as a new element and the system will work with it (in particular, through $|||$) and with a new operator according to its structure. For example, the operator $\uparrow\downarrow(A) = \forall B$, an operator transformer, a program operator transformer, a virtual operator, a program virtual operator, dynamic operator with «scenario» changes, dynamic program operator with «scenario» changes etc. The computer is the example of dynamic operator. The program operator of uncertainty type A leads to the energy A. The fuzzy program operator of uncertainty type A leads to the fuzzy energy A. For any uncertainty, we can "construct" a dynamic operator and then work through it. For example, for uncertainty B at point w, we get $B = {}^wD Sprt_w^Q$. After choosing Q and D we get the tool for work. It is possible to set the necessary uncertainties on a special filter and transmit UHF (or ultraviolet or pulses of a short-pulse laser) through it to form a program operator when constructing energy to perform the necessary goals. A program's appeal to itself makes it a self-program, from which itself will help to exit. May use recurrent method of constructing a pseudo-living energy. An uncertainty form is a qualitative leap compared to the pre-limit form of its process,

i.e., is an element of another space of a higher level, i.e., it is a "hole" (passage) between these spaces. May consider the new dynamic operator $SIprt_B^A = A|||_B B, |||_B$ is $|||$ in norm(format) of B. As soon as we start working with uncertainty, it ceases to be uncertainty and becomes certainty. Uncertainties are "holes" through which, with the right settings, the right actions can be performed to obtain the appropriate results, in particular, "loopholes" to other worlds. They correspond to subtle energies that allow you to do this. Uncertainty usually corresponds to a large concentration of elements in it with large changes in them. This gives it great opportunities. Transforming uncertainties through $|||$, we get singularities, or better to say that many singularities correspond to uncertainties through $|||$. Any Uncertainty correspond to energy type. Random events are uncertainties type, where probability is a certainties measure and entropy - a uncertainties measure. Also, it is for fuzzy. Uncertainties are higher level elements than usual ones, in particular, self- level elements and higher. Manifestations of such energies at our level give uncertainties. Constructing pseudo-living energy is Uncertainty constructing first of all, which correspond to singularity. Then needed dynamic program operator works in SmnSprt activation. May consider regular uncertainties with weights, random uncertainties, singular uncertainties, hierarchical uncertainties, uncertainty operators as program as mathematical. For example, $Sprt_w^{\{A|q\}}$, q are weights, $A = (|||, self, oself, self -oself, paself, \dots, pa|||, pa(self - oself), etc)$. $(|||_s)^{-1} (|||_Q)^{-1} |||_Q = (|||_s)^{-1} \cdot A|||_x B, self_{(A, B)} x$, where A, B are objects, x is the capacity of space or x is object, A, B are capacities of space. **paself** is capable of penetrating into self, for example: a short-pulse laser, an electric arc, ball lightning etc.

May consider

$$\begin{pmatrix} self_{(A_{11}, B_{11})} D_{11} \\ self_{(A_{21}, B_{21})} A_{11} & self_{(A_{22}, B_{22})} B_{11} \\ \dots & \dots & \dots & \dots \\ self_{(A_{n1}, B_{n1})} A_{n-1,1} & \dots & \dots & self_{(A_{nm}, B_{nm})} B_{n-1,m} \\ \dots & \dots & \dots & \dots \end{pmatrix},$$

$$\begin{pmatrix} A_{11} |||_{D_{11}} B_{11} \\ A_{21} |||_{A_{11}} B_{21} & A_{22} |||_{B_{11}} B_{22} \\ \dots & \dots & \dots & \dots \\ A_{n1} |||_{A_{n-1,1}} B_{n1} & \dots & \dots & A_{nm} |||_{A_{n-1,m}} B_{nm} \\ \dots & \dots & \dots & \dots \end{pmatrix} \text{ etc.}$$

Let's consider the vector of energy levels of a non-living object A:

$$\left(\begin{array}{c}
\begin{array}{c} \dots \\ \text{parelf} A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \text{singelf} A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \end{array} \\
\text{subtle energy of object } A \text{ paradoxical upper level } (pa|||) \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
\text{subtle energy of object } A \text{ paradoxical mid-level} \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
/ \\
\text{subtle energy of } |||^{-1} \begin{array}{c} \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \end{array} \\
\text{ordinary energy exhibited by an object } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \leftarrow \text{the raw energy of an object } A \left(\text{decignation} - A \right)
\end{array} \right) \quad (*_{6.1})$$

The are equations $(**_{1.1})$, $(***_{1.1})$ from Part I for living objects.

Let's consider the vector of energy levels of an action A:

$$\left(\begin{array}{c}
\begin{array}{c} \dots \\ \text{parelf} A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\ \text{singelf} A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \end{array} \\
\text{subtle energy of action } A \text{ paradoxical upper level } (pa|||) \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
\text{subtle energy of action } A \text{ paradoxical mid-level} \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
/ \\
\text{subtle energy of } |||^{-1} \begin{array}{c} \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \\ \overline{\overline{\overline{A}}} \end{array} \\
\text{ordinary energy exhibited by an action } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \leftarrow \text{the raw energy of an action } A \left(\text{decignation} - A \right)
\end{array} \right) \quad (*_{6.2})$$

May consider the induction from clotting. The result of it is the new self-type of a higher level than clotting result.

$$\left(\begin{array}{c}
\text{...} \\
\text{parelf } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
\text{singelf } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
\text{subtle energy of induction } A \text{ paradoxical upper level } (pa|||) \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
\text{subtle energy of induction } A \text{ paradoxical mid-level } \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \\
/ \\
\text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\
\overline{\overline{\overline{A}}} \quad \overline{\overline{\overline{A}}} \\
\left(\overline{\overline{\overline{A}}} \right) \quad \left(\overline{\overline{\overline{A}}} \right) \\
\text{ordinary energy exhibited by an induction } A \left(\text{decignation} - \overline{\overline{\overline{A}}} \right) \leftarrow \text{the raw energy of an induction } A \left(\text{decignation} - A \right)
\end{array} \right) \quad (*6.3)$$

For usual self-energy of object may consider the object-equation for $b(t)$:

$$Sprt_{b(t)}^{b(t)} = Sprt_t \left\{ \begin{array}{c} Sprt_{b(t)}^{b(t)} Sprt_{b(t)}^{b(t)} Sprt_{b(t)}^{b(t)} Sprt_{b(t)}^{input \text{ energy}(t)} \\ Sprt_{b(t)}^{b(t)}, \text{ output energy}(t) Sprt_{b(t)}^{b(t)} Sprt_{b(t)}^{b(t)} \end{array} \right\} (*6.4).$$

Physics of Singular Transformations

Any *Singular Transformations* in *Physics* are possible, since we live not only in the strip of inanimate objects and energies but also in the strip of living objects and living energies, in which much is possible that is not possible only in the strip of inanimate objects and energies. May use *Singular Transformations* in sociology, chemistry, engineering etc.

May consider the next example:

the structure $(*_{D.1})$ (Fig.1), where A goes into B, B goes into Q, Q goes into D, D goes into C, C goes into A, D goes out from A, A goes out from Q, C goes out from B, is used by the ancient Chinese concept of "wu-xing," for example, for energy meridians on the skin person, in this case (Fig.2): $(*_{D.2})$, $(*_{D.3})$, $(*_{D.4})$ will mean pathological changes.

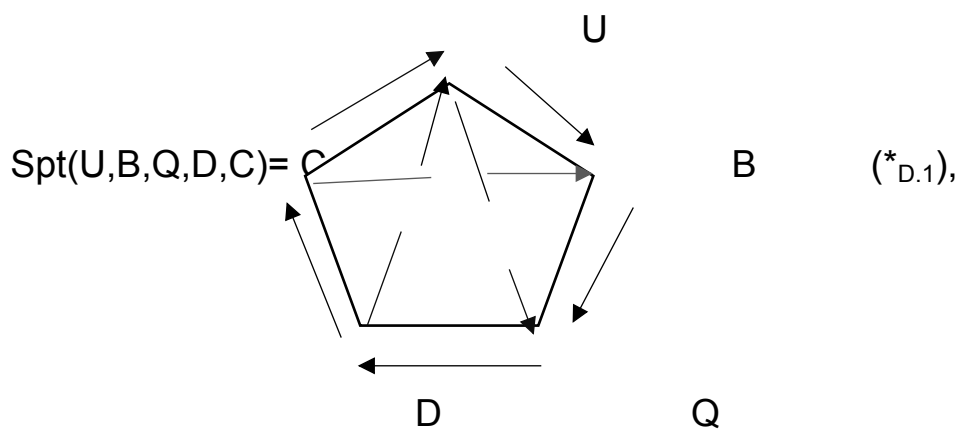
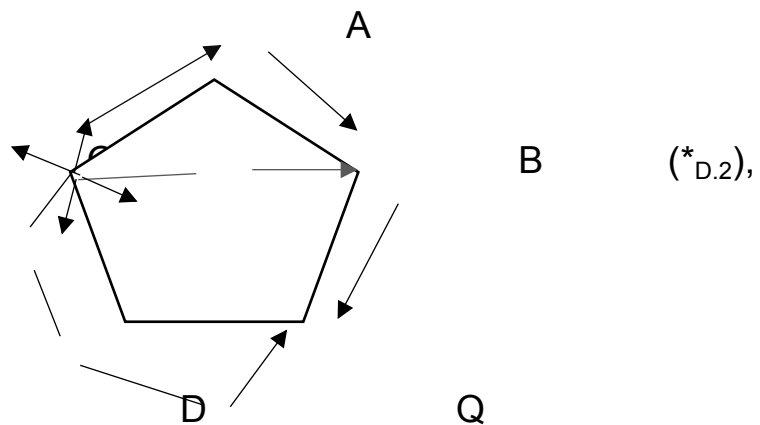


Fig. 1

for example, $U = {}^A_S \text{sprt}_A^A$, $B = \text{Sprt}_{\text{Sprt}_A^A}^A$, $Q = \text{Sprt}_A^A$, $D = {}^A_S \text{sprt}_A^{\text{Sprt}_A^A}$,
 ${}^A_S \text{sprt } C = \begin{pmatrix} 0 & \text{Sprt}_A^A \\ 0 & \text{Sprt}_A^A \end{pmatrix}$, for $A = \{ \}$, $\text{Spt}(U, B, Q, D, C)$ is virtual operator.



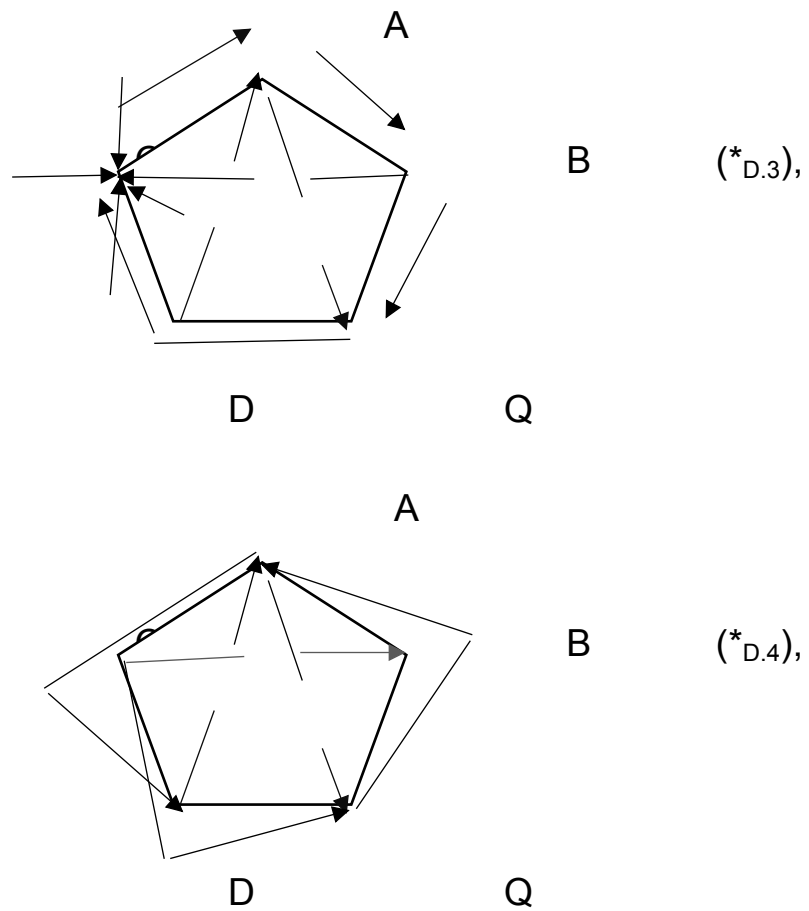


Fig. 3

Self-interpretation $\epsilon H = (\text{by interpretation } \infty \text{ of interpretation})$
(decignation – siin). Self-operator $\epsilon O = (\text{by operator } \infty \text{ of operator})$
(decignation – siop). $O_1 = (\text{by } O \infty \text{ of } O)$, ..., $O_{n+1} = (\text{by } O_n \infty \text{ of } O_n)$, ..., O_∞ .

$$\left(\begin{array}{c} \text{parelf}^{\dots}(H) \\ \text{singelf}(H) \\ \text{subtle energy of } pa||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ H \end{array} \right) \\ \\ / \qquad \backslash \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{c} \underline{H} \\ \equiv \\ \left(\underline{H} \right) \\ \underline{H} \end{array} \qquad \begin{array}{c} \equiv \\ \underline{H} \\ \underline{H} \\ \left(\underline{H} \right) \\ \leftarrow H \end{array} \end{array} \right)$$

,

$$\left(\begin{array}{c} \text{parelf}^{\dots}(Q) \\ \text{singelf}(Q) \\ \text{subtle energy of } pa||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ Q \end{array} \right) \\ \\ / \qquad \backslash \\ \text{subtle energy of } |||^{-1} \quad \text{subtle energy of } ||| \\ \begin{array}{c} Q \\ \equiv \\ \left(Q \right) \\ Q \end{array} \qquad \begin{array}{c} \equiv \\ Q \\ Q \\ \left(Q \right) \\ \leftarrow Q \end{array} \end{array} \right)$$

$$\left(\begin{array}{c} \dots \\ \text{parelf}(O_\infty) \\ \text{singelf}(O_\infty) \\ \text{subtle energy of pa}||| \\ \left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ O_\infty \end{array} \right) \\ / \\ \text{subtle energy of } |||^{-1} \quad \backslash \\ \begin{array}{c} \equiv \\ \equiv \\ \equiv \\ O_\infty \\ \left(\begin{array}{c} \equiv \\ \equiv \\ \equiv \\ O_\infty \end{array} \right) \\ \underline{O_\infty} \end{array} \quad \begin{array}{c} \equiv \\ \equiv \\ \equiv \\ O_\infty \\ \underline{O_\infty} \\ (O_\infty) \\ \leftarrow O_\infty \end{array} \end{array} \right)$$

etc.

Physics of Singular Transformations

Any *Singular Transformations* in *Physics* are possible, since we live not only in the strip of inanimate objects and energies but also in the strip of living objects and living energies, in which much is possible that is not possible only in the strip of inanimate objects and energies.

Using Hamilton's canonical equations, we represent

$$\{p_1, \dots, p_s, q_1, \dots, q_s\} \text{Sprt}^a \left\{ \frac{\partial p_1}{\partial t} = - \frac{\partial H}{\partial q_1}, \dots, \frac{\partial p_s}{\partial t} = - \frac{\partial H}{\partial q_s}, \frac{\partial q_1}{\partial t} = \frac{\partial H}{\partial p_1}, \dots, \frac{\partial q_s}{\partial t} = \frac{\partial H}{\partial p_s} \right\} \text{ as a}$$

solution option for elementary particles.

Remark 6.1. The structure of an atom is an approximate paself: (approximate||| by nucleons)approximate|||(approximate self by electrons) as manifestation of it upper level.

Remark 6.2. Sprt_a^a allows you to access the energy entering the object - $\text{Sprt}_a^a \text{input energy}(t)$ and the energy leaving it - $\text{Sprt}_a^a \text{output energy}(t) \cdot {}^a\text{Sprt}_a^a$ allows you to access the energy entering the object - ${}^a\text{Sprt}_a^a \text{input energy}(t)$, $\text{output energy}(t) {}^a\text{Sprt}_a^a$ and the energy leaving it - ${}^a\text{Sprt}_a^a \text{output energy}(t)$ and other

various manipulations by some a from ${}^a Sprt_a^a$. For example,

$output\ energy(t) {}^a Sprt_a^{input\ energy(t)}$ may correspond to the introduction of foreign energy into the body (parasites, etc.).

More complex ones are also possible: ${}_{a, output\ energy(t)} {}^a Sprt_a^{a, input\ energy(t)}$,

$output\ energy(t) {}^a Sprt_a^{input\ energy(t)}$ ${}_a Sprt_a^a$, ${}_{a, input\ energy(t)} {}^a Sprt_a^{a, input\ energy(t)}$ etc.

Supplement for Quantum Mechanics and Classical statistical Mechanics through Sprt-elements:

Using Hamilton's canonical equations [27], we represent

$$\{p_1, \dots, p_s, q_1, \dots, q_s\} {}^a Sprt_a \left\{ \frac{\partial p_1}{\partial t} = - \frac{\partial H}{\partial q_1}, \dots, \frac{\partial p_s}{\partial t} = - \frac{\partial H}{\partial q_s}, \frac{\partial q_1}{\partial t} = \frac{\partial H}{\partial p_1}, \dots, \frac{\partial q_s}{\partial t} = \frac{\partial H}{\partial p_s} \right\} \text{ as } a$$

Variants of the Schrödinger equation $\frac{\partial \hat{\rho}}{\partial t} + [\hat{W}, \hat{\rho}] = 0$ of the form S_2f , S_3f are possible, using the forms (1.1) -(1.4). The upper-level singularity of the Schrödinger equation $\frac{\partial \hat{\rho}}{\partial t} + [\hat{W}, \hat{\rho}] = 0$

As a hypothesis

$$\frac{\partial J(\hat{\rho})}{\partial t} + [J(\hat{W}), J(\hat{\rho})] = 0, J(A) = {}^A Sprt_A^A$$

$$\frac{\partial U(\hat{\rho})}{\partial t} + [U(\hat{W}), U(\hat{\rho})] = 0, U(A) = {}^0 Sprt_A^A,$$

$$\text{using quasi-measure: } \begin{pmatrix} ls \\ \mu s \\ \rho_{ls, \mu s} \\ \rho \end{pmatrix}.$$

Self-type structures of probability

self-type Zprt-structures of probability

We consider dynamic operator [29]

$$\begin{array}{c}
C \\
\uparrow \\
\overline{P} \\
\uparrow \\
\overline{S} \\
\uparrow \\
\overbrace{R} \\
\uparrow \\
\overline{\overline{G}} \\
\uparrow \\
\overbrace{O} \\
\uparrow \\
\overbrace{U} \\
\uparrow \\
\overline{\overline{V}} \\
\uparrow \\
\vdots
\end{array}
\begin{array}{c}
\vdots \\
\overline{\overline{W}} \\
\uparrow \\
\overline{\overline{J}} \\
\uparrow \\
\overline{\overline{H}} \\
\uparrow \\
\overline{\overline{F}} \\
\uparrow \\
\overline{\overline{A}} \\
\uparrow \\
\overline{\overline{D}} \\
\uparrow \\
\overline{Q} \\
\uparrow \\
B
\end{array}
\quad \text{Zprt} \quad (B.1.1),$$

where $\overline{\overline{W}}, \overline{\overline{V}}$ - *parelf* levels of W and V respectively, $\overline{\overline{J}}, \overline{\overline{U}}$ - singelf levels of J and U respectively, $\overline{\overline{H}}, \overline{\overline{O}}$ - **paradoxical** upper levels of H and O respectively, $\overline{\overline{F}}, \overline{\overline{G}}$ - **paradoxical** average levels of F and G respectively, $\overline{\overline{A}}, \overline{\overline{R}}$ - upper levels of A and R respectively, $\overline{Q}, \overline{P}$ - middle₁ levels of Q and P respectively, B goes to the middle₁ level of Q - $\overline{Q}$, $\overline{Q}$ goes to the middle₂ level $\overline{\overline{D}}$, $\overline{\overline{D}}$ goes to the upper level of A - $\overline{\overline{A}}$, $\overline{\overline{A}}$ goes to the **paradoxical** middle level of F - $\overline{\overline{F}}, \overline{\overline{F}}$ goes to the **paradoxical** upper level of H - $\overline{\overline{H}}, \overline{\overline{H}}$ goes to the singelf levels of J - $\overline{\overline{J}}, \overline{\overline{J}}$ goes to the *parelf* levels of W - $\overline{\overline{W}}, \overline{\overline{V}}$ goes to the $\overline{\overline{U}}, \overline{\overline{U}}$ goes to the $\overline{\overline{O}}, \overline{\overline{O}}$ goes to the **paradoxical** middle level of G - $\overline{\overline{G}}, \overline{\overline{G}}$ goes to the upper level of R - $\overline{\overline{R}}, \overline{\overline{R}}$ goes to the middle₂ level $\overline{\overline{S}}, \overline{\overline{S}}$ goes to the middle₁ level of P - $\overline{P}, \overline{P}$ goes to the lower level of C simultaneously. The result of this process will be described by the expression

$$\begin{array}{c}
 C \\
 \uparrow \\
 \bar{P} \\
 \uparrow \\
 \bar{S} \\
 \uparrow \\
 \left. R \right\} \\
 \uparrow \\
 \bar{G} \\
 \uparrow \\
 \left. O \right\} \\
 \uparrow \\
 \left. U \right\} \\
 \uparrow \\
 \left. V \right\} \\
 \dots
 \end{array}
 \text{Zrt}
 \begin{array}{c}
 \dots \\
 \left. \bar{W} \right\} \\
 \uparrow \\
 \left. \bar{J} \right\} \\
 \uparrow \\
 \left. \bar{H} \right\} \\
 \uparrow \\
 \bar{F} \\
 \uparrow \\
 \bar{A} \\
 \uparrow \\
 \bar{D} \\
 \uparrow \\
 \bar{Q} \\
 \uparrow \\
 B
 \end{array}
 \text{(B.1.2).}$$

We consider the following self-type Zprt-structures of probability of the first type:

We consider the following self-type Zprt-structure, **paradoxical** self-type Zprt-structure (paself-type Zprt-structure) of the first type:

$$\begin{array}{ccc}
 B & & \vdots \\
 \uparrow & & \vdots \\
 \overline{Q} & & \overline{W} \\
 \uparrow & & \uparrow \\
 \overline{Q} & & \overline{J} \\
 \uparrow & & \uparrow \\
 \overbrace{R} & & \overline{H} \\
 \uparrow & & \uparrow \\
 \overline{G} & \text{Zprt} & \overline{F} \\
 \uparrow & & \uparrow \\
 \overline{A} & & \overline{A} \\
 \uparrow & & \uparrow \\
 \overline{U} & & \overline{Q} \\
 \uparrow & & \uparrow \\
 \overline{V} & & \overline{Q} \\
 \uparrow & & \uparrow \\
 \vdots & & B
 \end{array}
 \quad (B.1.5),$$

denote $p(Z_3 f_{H,F,A};Q;B)$.

$$P\left(\frac{Q}{\hat{Q}} \mid Z_{\text{prt}} \equiv \frac{Q}{Q}\right) \quad (\text{B.1.6}),$$

denote $p(Z_4 f A; Q)$.

$$P(\underset{\uparrow}{Q} \mid Z_{\text{prt}} \equiv \underset{O}{Q}) \text{ (B.1.6.1),}$$

denote $p(Z_5fA;Q;a)$, $a \subset A$,

$$\begin{array}{ccc}
 C & & \cdots \\
 \uparrow & & \uparrow \\
 \bar{P} & & \overline{\overline{W}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{Q}} & & \overline{\overline{J}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{R}} & & \overline{\overline{H}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{G}} & \text{Zprt} & \overline{\overline{F}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{O}} & & \overline{\overline{A}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{U}} & & \overline{\overline{Q}} \\
 \uparrow & & \uparrow \\
 \overline{\overline{V}} & & \overline{\overline{Q}} \\
 \uparrow & & \uparrow \\
 \cdots & & B
 \end{array}
 \tag{B.1.6.2},$$

denote $p(Z_6f)$,

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