

## Description of the Physical Processes Originating from the Movement of Time. Part 3.

### Analysis of the movement of natural phenomena.

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#### Degrees of freedom of movement.

Consider the processes of "peace - motion" for matter and its defects, in a rectangular coordinate system. Defects depend on speed, and do not depend on the direction of motion. The direction of motion depends on the coordinate system. There is no absolute coordinate system and therefore, the defect from linear motion is independent of the coordinate system and the direction of motion. Independent rotation can occur in one and two planes.

Variants of motion of the body will be called the degree of motion of the body:

1 degree - linear ( $X$ ) or rotation ( $rot X$ ), ( $rot Y$ );

2 degrees - rolling ( $X + rot X$ ), motion in a spiral ( $rot Y + X$ ); rotation in two planes ( $rotX + rotY$ );

3 degrees - rolling with rotation along the normal to the axis of linear motion ( $X + rot X$ ) +  $rotY$ .

Motion creates defects in every Nature Phenomenon. The number of defects corresponds to the number of degrees of motion of the body. To simplify the equations, the degrees of motion are assumed to coincide with the axes of the rectangular coordinate system.

The axes of coordinates characterize the spatial characteristic of the Phenomena of Nature. For a spatial description of the Phenomena of Nature, let us represent them respectively in a linear and volumetric form.

$$M = 4\pi m^3 / 3; V = 4\pi l^3 / 3, T = 4\pi t^3 / 3$$

M, V, and T are the mass, volume and tempo of the body.

l, m, t - linear indicators: the volume, mass and tempo of the body.

From the equation  $E = MV / T$ , the energy of the moving body acquires the form:

One degree of motion.

$$dE = (m^2 dml^2 dt) / t^4 \quad (9)$$

2 degrees of motion.

$$d^2 E = (md^2 mld^2 ltd^2 t) / t^5 \quad (10)$$

3 degrees of motion.

$$d^3 E = (d^3 md^3 ld^3 t) / t^6 = - (dMdVdT) / T^2 \quad (11)$$

Equations (9,10,11) allow us to describe mathematically the aggregate states of substances.

Molecules and atoms, in the solid state, perform oscillatory movements of translational form (9). The production of energy increases the frequency of molecular vibrations, weakening intermolecular bonds. If the additional energy only weakens the intermolecular bonds, then:

- a solid body will turn into a hill of molecules. Molecules the state of the hill will provide friction forces;

- the substance, having increased the frequency of oscillations, gradually increasing in volume, through a viscous state, will pass into a state of liquid.

In reality, the phase transition is a sharp jump from the solid state to the liquid phase. The phase transition occurs because the molecules, not being able to further increase the frequency of oscillations, convert the incoming energy into the energy of rotation of the molecules (10). Molecule, the acquisition

of rotational motion ( $X + rot X$ ), creates a transition to the state of "liquid". The liquid is an analog of rolling balls. Temperature changes, with the "solid-liquid" phase transition, are not present, since the rotation speed and the linear velocity of the molecules are the same. For the transition from the phase state "liquid" into the phase state "gas", the molecules of the liquid, having received additional energy, acquire two degrees of rotation (11).

At 3 degrees of motion, the energy of the gas is equal to the sum of the energies along the coordinate axes. The molecules of a liquid and a gas, the equality of the rotational and translational velocities is observed. Consequently, the energy of the gas is 3 times greater than the energy of a particle moving linearly or  $E = 3Mu^2 / 2$ , where  $u$  are gas molecules velocity [13]. This formula has been known for a long time. In this case, the total energy of the rolling wheel is almost equal to  $Mv^2$ . Similarly, a bullet from a rifled weapon, flies out of the barrel, with an energy greater than  $Mv^2 / 2$ .

For  $M = f(-T)$ , the following dependences of the energy of the system are observed.

$dE_t = MVdT / T^2 = VdT / T$ . The energy of the system is proportional to its temperature. For waves and photons, the energy is equal to the product of the Planck constant by the oscillation frequency. A similar conclusion for  $dE_m = VdM / T = - VdT / T$ .

$dE_v = MdV / T = dV$ . The change in energy of the system is proportional to the change in the volume of the system

$dE_{mv} = dMdVdT / T^2 = dMdVdT / TM$ . This equation describes the change in the energy of the gas.

From the equation obtained, the energy of the gas:

- proportional to the temperature and velocity of the gas - to the defect of the tempo of time in the molecule;
- is proportional to the volume defect and inversely proportional to the molecular mass of the gas. This is confirmed by practice. How does rotational motion occur? The motion of a body with linear acceleration creates an opposing process. Counteracting linear acceleration, there is acceleration in the direction, which leads to the appearance of rotational motion.

### **Wave behavior**

The wave and the rolling are mathematically described by one equation.

The mathematical analogy of rolling and wave motion shows that in motion, the wave has a specific corridor (radius of rotation). Outside the corridor there is no indignation in the environment.

Interactions between successive waves do not occur, i.e. waves are quantized from each other.

The motion of waves is the rolling of energy in a medium. Reducing the medium layer, less than the diameter of the corridor, causes a redistribution of energy in the corridor. Excess energy transforms the translational motion of waves into a rotational wave - the wave "twists".

### **The mathematical and physical meaning of the defects of the Phenomena of Nature**

1. The phenomenon of Nature in peace. The defect is zero. Zero is the starting point.
2. Linear motion of the Phenomenon of Nature.  
A defect is a vector. The point on the vector is the potential of the defect of the Phenomenon of Nature. The vector describes the potential difference or duality.
3. Phenomena of Nature rotation. The defect of the Phenomenon of Nature has the form of a plane. A flat defect is on the plane a set of lines of potentials. A lot of potential lines create a defect field. Consequently, the flat defect of the Phenomenon of Nature is the field created by the defect.
4. Phenomena of nature rolling and linear motion. For the body, it is the movement of a wave or the formation of a funnel / cyclone. The defect of the Phenomenon of Nature is realized by the movement of the field.
5. Phenomena of Nature are two rotations. A defect has two variants of figures. If the centers of rotation coincide, the radii of rotation are the same size, a sphere / sphere shape is formed. If the centers of rotation do not coincide, then a figure is formed. This created two kinds of defects of the Phenomena of

Nature. The ball creates open fields. Thor creates closed toroidal fields. Example. A defect in the volume of matter creates an open electric field. A defect in the mass of matter creates a toroidal magnetic field.

6. Phenomena of Nature are three degrees of motion. Three degrees of freedom of movement create a specific particle of the defect of the Phenomenon of Nature. The particles move "screwing" into the medium.

The shape of the body changes in motion, relative to the form of rest:

Linear motion - the form of the system tends to go into a flat state, in the direction of motion;

Rotation - the form is contracted in the plane of rotation. The reduction is the stronger, the further the portion of the form is from the center of rotation. Stretching, when rotating, creates opposition, the emergence of centrifugal force.

The form of defects in the phenomena of Nature varies according to the following scheme:

Two degrees of motion create a plane ( $X + rot X$ ) or a tunnel ( $rot Y + X$ ) of the defect.

Motion ( $X + rot X + curl Y$ ) will create a three-dimensional defect, forming a specific shape of the defect - a particle.

The dependence of the shape of the body and defect on the number of degrees of motion is visible. The body reduces its spatial characteristic, in the direction: the form is the volume → the plane → the line → the point. The defect increases its spatial characteristic in the direction: zero (reference point) → line → plane → concrete shape. We have the constancy of the sum of the defect + phenomenon.

### **Logic (philosophy + mathematics) of Nature**

The constant appears when differentiating equations or integrating zero. For physics, differentiation is decay, integration is synthesis, that is, the phenomena of nature arose in the course of disintegration or synthesis. If the Phenomena of Nature arose the collapse of a complex, then before its appearance, the Phenomena of Nature already existed as a single system. If the Phenomena of Nature arose by integrating zero, then the conclusion is that the most potential in Nature is emptiness / zero. Naturally, both options are true. The proto-nature-the state of Nature before the onset of the universe-was a point and everything for the Phenomena of Nature.

Consider a variant of the origin of the universe, proceeding from the existing Nature:

a) Four parts arise in a double dual decay;

b) Nature unites discrete (MV) and open (ET) double Nature Phenomena.

Consequently, at an intermediate stage, Nature was the duality of the discrete-open pair. In this case, the following dynamics of the process is observed:

PN (MVTE) is a proto-nature.

The disintegration of proto-nature PN (MVTE) created a dual pair of EM-protomatter (discrete system, Point) and TV-protovoucum (open system, All). Parts of the pair break up into their own duality "consisting of separate Natural Phenomena (M-E) - (T-V). Parts of the new dual pairs, while preserving duality, can not unite within the dual pair, but can unite with a part of the other pair, forming complex pairs. The combination of parts of different dual pairs created matter and ether  $MV = ET$ .

The disintegration and subsequent synthesis, restored the unity of Protoprirode, on a new qualitative level and explains the rule existing in Nature "Unity and individuality of opposites".

The scheme of the process:

Protoproda PN (TEMV)

The dual pair ME VT

The complex pair MV ET

The decay and unification of components can be explained if we apply the concept of potential. The total potential of the proto-nature is zero. Suppose that:  $T = (-3)$ ;  $V = (-1)$ ;  $E = 1$ ;  $M = 3$ .

The potential of Protovacuum TV and Protomatteria EM is respectively equal to (-4) and (+4) or the duality is equal to 8.

Further disintegration into dual pairs ( $T - V$ ) and ( $E - M$ ) creates the opportunity for the formation of different variants of connections between them. The variant EV and MT describes systems that are neutral in potential and do not interact with each other. This is an option of a dead nature.

The variant  $MV = 3 - 1 = 2$  and  $TE = (-3) + 1 = -2$  creates a new dual pair with a low degree of contrast, relative to the protomatter-protovacuum pair. The result of such a connection will be a reduction in the "confrontation" between the dual components and an increase in the stability of the new systems. The decomposition of Protopriode into dual components is caused by the desire to improve its stability. Dual decay creates a PIC between parts. The PIC is characterized by a lack of stability. How did dual decay improve the stability of newly formed systems? To maintain duality, dual pairs begin to rotate around each other. The resulting stability of the dual pair allows each component of the dual pair to break into new dual pairs. The pairs ( $T - V$ ) and ( $E - M$ ) rotate between themselves and to create stability, rotate inside the pair. Further mechanics. If the radius of rotation inside the pair, commensurate with the radius of rotation of the dual dualities, then the emergence of complex pairs MV and TE is inevitable.

The emergence of the Phenomena of Nature from Protopriode, indicates the equivalence of the Phenomena of Nature. Equivalence is achieved when:

- equality. Equality creates stagnation - a variant of dead Nature (the explanation of the adoption of unequal potentials of the Phenomena of Nature  $T = (-3)$ ;  $V = (-1)$ ;  $E = 1$ ;  $M = 3$ );
- activities in various fields, with the existence of mutual exchange. Variant of dynamic Nature.

For the appearance of defects, the interaction of systems is necessary. Interaction occurs when it is possible to create multivariant states between the points that characterize phenomena. On the plane of the first multivariant (flexible) system is a quadrilateral (in our case M, V, T, E). Consequently, in the absence of defects in the Phenomena of Nature, the world would be flat. The proto-nature, divided into matter MV and the physical vacuum TE, is further manifested by defects in the phenomena of Nature. Defects (movement) made the world voluminous. And vice versa. The volume allowed defects to occur.

The disintegration of Protopriode, into the four Phenomena of Nature, demanded, for stability, a changing and unifying vector. Combines strong / potential. The greatest potential was in Time. So there was a three-dimensional world moving in the time vector.

Dual decay violates the unity of the original system. Duality is described by a line. To preserve the unity, the line must close. Faster line closes on the plane than in the volume. Consequently, perpendicular planes are the most advantageous option of preserving the duality of the dual world. The Protopriode was One. One can be only a point or the universe originated from a point. It is known that the universe is infinite. A volume system can simultaneously be a point and infinity if it is between two other systems for which it is a point and infinity (a matryoshka of spheres). Consequently, in reality, each point and infinity has finite dimensions.

### Short

1. The change in speed or frequency is due to the fact in which the Nature Phenomenon changes occur. If in space, then acceleration. If at a rate of time, then change the frequency.
2. In a fluid / pseudo-fluid (2 degrees of freedom of movement), the creation of oscillations of sufficient frequency (an additional degree of freedom of movement) will create conditions for the formation of pseudo-forms in the liquid and forms in the pseudo-liquid. The effect of the formation of figures in vibration is known (applied nonlinear dynamics). Observation of forms,

- in the flowing fluid, with pulsed light, has long been a known effect.
3. Motion of a photon in a "tunnel" is the solution of the photometric paradox.
  4. Protoprirod is zero for all the Phenomena of Nature. To cause a nonlinear process at zero, it is enough to start the minimum potential in it. The "Big Bang" was quite small, even by earthly standards. Then everything went in a spiral.
  5. Nature, many temporal processes, are mathematically described by logarithmic equations. Logarithmic equations appear when integrating the function  $1/x$ , where  $x$  is the time or analog of time.
  6. Ether ( $TE$ ) is transformed into matter, reducing its concentration and increasing the concentration of matter in Space. From  $E = MV/T$  it follows that the recorded expansion of the universe with acceleration can be described as the ratio of the Past (matter) to the Future. The potential of the past is growing, the transformation of the Future ( $TE$ ) into matter. The potential of the future is decreasing. The changes are proportional to the Planck constant and the duration of the time period. The graph of the function  $a = f(C^2(P + h\Delta t / F - h\Delta t))$ , where  $P$  is the amount of matter at the reference point of the past,  $F$  is the number of the ether at the future reference point.

### **The phenomenon of complexity**

Mathematically, the phenomenon of complexity, this interaction of perpendicular lines or planes. The planes  $MV$  and  $TE$  show that the modern three-dimensional world could arise from a flat world. The plane arose from the line, the line formed from the point. At the point all the Phenomena of Nature are mixed and the definition of chaos is appropriate for the initial state of nature. So you want to repeat the phrase "In the beginning there was chaos."

ore real (from my point of view) another version of the explanation of complexity.

The normal of the planes  $MV$  and  $TE$  shows that the processes in the universe are similar to transitions in the aggregate states of substances (the degrees of freedom of movement of the molecules are located to each other along the normal). The transformation of Ether into Matter is similar to the condensation of ether into matter, that is, matter and ether are different aggregate states of one system. Condensation of ether into matter explains the equality in equation  $MV = TE$  (water remains water in the form of vapor, liquid and ice). Ether in space (physical vacuum), is a similarity of gas. Matter is a solid. If in nature there is a solid and gas, then what is the liquid? The liquid turns into a solid with the release of energy. What kind of "almost matter" "crystallizes" into matter with the release of energy. "Almost matter" is already matter. Consequently, the disintegration of "almost matter" must be accompanied by a mass defect. The neutron satisfies these requirements. If the neutron is not "matter", then it should not have a property, radiate energy from the transformation of the Ether into matter. The absence of this property creates an accumulation of energy in the neutron. The accumulated energy contributes to its decay into a proton, electron and neutrino radiation.

Having adopted matter and ether with different aggregate states of one system, we can draw the following conclusions. Time is a mass without form. Matter is an ether having a form. A photon is an energy that has a form.

### **Transformation Processes**

What is transformation, from a physical point of view? Transformation is a movement that creates a change in properties. Acquiring new properties or expanding available is freedom. Consequently, the transformation increases the degree of freedom of the phenomena. The nature. In the language of mathematics, the possibility of transformation increases the dimensionality of systems in the existing three-dimensional world.

Transformation is possible only in complex systems. The transformation of an electric field

into a magnetic field is known, and vice versa ( $dm \leftrightarrow dv$ ). If there is a transformation  $dm \leftrightarrow dv$ , then there must be a transformation of energy into a time defect ( $de \leftrightarrow dt$ ). The closest option is the mutual transformation of the kinetic energy into temperature and the change in the tempo of time by speed.

The transformation of the electric field into a magnetic field and vice versa ( $dm \leftrightarrow dv$ ), with time movement, creates electromagnetic radiation, recorded as a radio. What "hindrances" will arise when energy is transformed into a time defect ( $de \leftrightarrow dt$ ), when moving in space (rotation of an electron in orbit)? Changes associated with the defect mass: interference modulation of radio waves, the manifestation of magnetic properties.

### **The movement of the moment "now"**

The movement of time is the result of the transformation of the future into the past.

Transformation can not be instantaneous, that is, it has its own time period. The transformation period is the "now" moment. The transformation period is capable of changing. The change in the transformation period is recorded as a change in the rate of time. The change in tempo is a change in the size of the "now" period and it is not a movement along the "Past - Future" axis. The uniqueness of the moment "now" allows us to consider it a wave corpuscle. The direction of movement of the corpuscles is given by the vector "Past  $\rightarrow$  Future".

The sum of the periods creates the duration of the event. Moments "now" do not unite. In the case of a real summation of the "now" moments, one could move along the "Past - Future" axis, ie, move between events.

Transformation is movement. What is the "now" moment moving? Motion is a change in position, in the accepted coordinate system. The origin of the coordinates can be taken as the state of the system, not the point in the external world. Under such conditions, a change in concentration is a movement relative to itself. Consequently, moving the moment "now" along the axis "Past - Future" is a movement of time in time. The change in time in time is an acceleration or an analog of acceleration (Lorentz transformation with respect to a moving system, i.e., the inverse transformation). Consequently, the moment "now" moves in Time linearly and with acceleration. The movement of time with linear acceleration creates a recorded "redshift" in photons that originated in the distant past.

The increase in the Mass of Matter in Nature creates the acceleration of the process of transforming the Future into the Past. The resulting acceleration is located along the normal to the "time arrow" (the instant "now" is located along the normal to  $M = f(-T)$ ). The acceleration along the normal creates a centripetal acceleration. Thus, the moment "now" moves, relative to the existing time, with linear acceleration and The movement of the moment "now" (with a filling) with two accelerations is graphically described as a spiral of time expanding in diameter. The secondary effect, from the movement of Time, is the transformation of Energy into Space. Transformation increases the amount of Space. Increasing the volume of Space helps to reduce the concentration of Ether in Space, which creates spatial, linear and centripetal, acceleration of the moment "now". Graphically it looks like a spatial spiral expanding in diameter.

Mathematically, Space and Time are normal to each other, therefore the acceleration arising from the expansion of Space "twists" the spiral of the instant "now" widening in time into the funnel from the funnel in space - the "snake swallowing itself".

Distracted. Surprisingly, a symbol of eternity, in ancient times, chose a snake eating itself - uroboros. Questions about how not reading this section, they came up with uroboros and "How long will Matter, Time and Space last forever?", let's leave it open.

A graphical description of the development of the moment "now" explains the deviation of the dependence of the gravitational interaction on the function  $1 / R^2$ . The deviation is caused by the curvature of the "arrow of time" in the uroboros. Deviation is analogous to the ratio of the

moment "now", to the time potential, i.e. analogue of the Planck constant.

The presence of a linear and two rotational (located along the normal to each other) motions creates a spatio-temporal form of the moment "now" - a particle of Time. The form creates the closure of the moment "now" from the Past - Future, which does not allow "traveling" in time, preserving the continuity of the linear flow of time.

"The snake that absorbs itself," having formed a spatio-temporal form, created order in the interaction of the Past, the moment of "now" and the Future. Ordering was expressed in the formation of cause-effect relationships. But the formation of uroboros could not have occurred over a zero period of time. In the period from the beginning of the Big Bang, until the emergence of the uroboros boundary between the Past, the moment "now" and the Future was not, which violated the cause-effect relations. Such a state of Nature can be described as Chaos. Can the cause-effect relationship be broken now?

If you take the spiral extension of the moment "now" perfect, then no. In reality, the extension of the spiral of the moment "now" is affected by disturbances in Nature. These disturbances are capable, at the local level, of breaking causal relationships.

And how does this concern us? Due to the large volume of the physical vacuum, fluctuations arise in it, creating changes in the etheric density. The uneven etheric density of the physical vacuum affects the energy release by the stars. Once in such a section, the star changes the amount of radiated energy. If a star is called the Sun, then on Earth comes the glacial period or the warming of the climate.

### **Conclusions**

1. Space is part of Nature and participates in the processes of Nature, i.e. Space is an active component of the existing Nature. There is no passive scene in Nature.
2. Transformation of Ether into matter and energy, reduces the potential of time. The decrease in the time potential changes the absolute zero temperature.
3. Photons move at the speed of light. At the speed of light, the movement of time stops. The rate of time is characterized by Planck's constant. Consequently, the speed of light is related to the Planck constant.
4. For electromagnetic radiation, a change in the tempo of time, changes the frequency of electromagnetic radiation. For photons, the frequency of electromagnetic radiation, characterizes the temperature of photons. Consequently, the temperature is the manifestation of a defect in the tempo of time. Therefore, the transformation  $dE \leftrightarrow dT$  makes it possible to convert thermal energy into kinetic energy and vice versa.

### **The moment "now" as an intermediary**

The moment "now" is the mediator between the Past and the Future. The mediator is viable if it enhances the effectiveness of the interaction. What does the intermediary give to the Past and what does the Future receive from the intermediary? For the answer, consider the properties of the Mediator. A lot of intermediaries can create a cycle. We have only one intermediary - the moment "now". Consequently, the emergence of the cycle of the Future - the Past, is not possible. Impossible now. If there is another mediator, the cycle is possible.

The cycle (delayed feedback) occurs during the evolutionary development of the system, from point to volume. The sum of the "now" moments forms the "arrow" of time. The "arrow" of time closes into a circle. This does not happen because the "arrow" of time has the form of uroboros and the line can not form a circle.

The moment "now" (with stuffing) graphically looks like a section of uroboros, of some thickness. The thickness of the spiral, less than the pitch of the "thread" of the uroboros, does not allow contact with the coils of the spiral. Acceleration of the moment "now" (increasing the

diameter of the spiral) creates a separation of the "now" moments on the plane of rotation. These two factors preserve the separation of the moment "now", the Past and the Future, from each other.

The increase in the mass concentration, the decrease in the time potential in the physical vacuum and the acceleration of the tempo of time, creates an increase in the "thickness" of the "now" moment. At some point in time, the thickness of the spiral becomes equal to the pitch of the "thread" of uroboros. There will come a contact of the moment "now" and the past. Contact will create processes:

- "bounce" the "arrow" of time into the future, the transformation of the rotational energy of the "arrow" of time, into a progressive one;
- "rebound" will create an opposing process - squeezing the spiral into the past;
- contact will lead to the formation of a ring from the spiral.

Theoretically, the "rebound", the compression of the spiral and the formation of the ring must occur simultaneously. In practice, the moment "now" is moving forward, which will create a sequence of events. The process can not start everywhere and is lightning fast. How will the first calls look like? The process will arise in places where the concentration of matter in Space is able to substantially pour into the "arrow of time". The maximum concentration of matter in the universe is observed in stars. How will the stars behave when approaching the stopping time point?

The "rebound" of the moment "now" into the Future, from the previous spiral coil, will increase the energy release by the star. The star will become brighter and will start to increase in size. Compression of the spiral of the Past (for us the Past is matter), will create the reverse "arrow" of time. The processes, with the reverse "arrow" of time, go with the absorption of energy. Cooling the star array, with the backward "arrow" of time, will lead to the star's radiation ceasing. Neutralization of differently directed movements, transforms the spiral into a ring - the course of time will stop. Stop the course of time will remove from the mediation process. An uncontrolled transformation of the Future into the Past will begin, with the release of a huge amount of energy, observed as a flash. This description coincides with the description of the supernova explosion. Not regulated by the moment "now", the transformation of the Ether into Matter, will lead to the fact that the supernova outburst creates a significant increase in the amount of matter in this part of the universe. The explosion will scatter matter in space and the "arrow" of time that exists in nature will return the process of interaction. The future is the past, to the normal course. The subsequent processes of the formation of planets and stars, will lead to a repetition of the situation, in a shorter period of time. The growth of the mass of matter in the universe will accelerate the process of the transition of stars into a supernova state. There will come a time when the natural course of time will not be able to restore arose "jump" in the direction of the movement of time. At this point, the reverse course of time will begin. Unlike the existing "time arrow", the reverse course of time, will begin to convert uroboros into a ball and the space will begin to shrink. In a sphere, Space and Matter will be transformed into Ether. With the approach of "backward time arrows" to the center of the ball, the amount of Matter in the Etheric Universe will fall to the limit at which there is practically no potential for the development and existence of the Etheric Universe - the material world will become the size of a point, according to the standards of the universe. Having reached the state of the point, the inverse "time arrow" will stop and in the Etheric Universe the Big Bang begins, which once laid the foundation for our material world.

I note that the compression of the "arrow" of time will violate the interaction of protons and atomic nuclei with electrons. The nuclei of atoms will be absorbed by electrons, forming electrically neutral material particles - Large Neutrons. Restoring the "arrow" of time will lead to the disintegration of the

Great Neutrons and the emergence of chemical elements from them. Consequently, the development of the universe, supernova explosions, (more precisely, "jump" in the reverse course of time), leads to the transformation of protons and electrons into chemical elements. This can be verified by comparing the spectral radiation of Supernovae before and after the explosion. The predominance in the universe, the amount of hydrogen, over other chemical elements, indicates that the existing "time arrow" is at the initial stage of evolution.

### **Conclusions.**

1. The explosion of the supernova, reducing the concentration of matter at the local level, restores the passage of time from the Past to the Future, in this volume of the universe.

2. We live in Nature, the existence of which is due to fluctuations in the transformation of Matter into Ether and back.

3. In the global version of the Past and the Future there is no periodicity. Our Past is the Future of the Etheric / Spiritual World. Our mind works by moving spiritual images. The mind of the counter "arrow" of time will think, moving the material bodies (analogue of chess).

Abstraction. The possibility of the moment "now" moving along the previous coil, unites the moment "now" with the recent past. At the moment I do not know the period of the spiral, but information about the resurrection of the dead, at the onset of the end of the world met. The reality of this information is questionable, because the processes are going on in different places. The dead are resurrected on the planet, with a comfortable energy intake. A comfortable amount of energy comes at a great distance from the planet. Supernova explodes, having little effect on the direction of the "arrow" of time on the planet. Consequently, on the planets, the emergence of a reverse "arrow" of time is unlikely. Most likely, the desire to preserve information, it gave importance, revival of the dead.

4. To take a more detailed look at the processes, in the reverse course of time, we use the complex number  $i$ . Complex numbers are widely distributed in electrical engineering. We draw analogies with electrical engineering. A three-phase connection and a neutral wire create an analog of the structure of Nature. The three phases are mass, energy and volume. Zero wire, allows you to observe the conservation laws. A three-phase connection can be in the form of a star and a triangle. Using the analogy of the laws of Nature, we will accept the connection "star" for the analogue of the existing world. The star connection allows you to change the amount of mass, energy and size / shape in the existing system. The connection "triangle" is an analog of Nature, with the reverse course of time. The triangle is a rigid figure. Consequently, in the reverse course of time, the ratio of mass, volume, and energy will be constant, with a change in the concentration of the potential of time-the "contraction" of the circle. The circle will shrink to the minimum allowable size. The minimum allowable size is the diameter of the "tunnel" of time, equal to the diameter of the photon. Having reached this size, the "arrow of time" will create a jump and start the "Big Bang". A big explosion will direct the development of Nature as uroboros.

When the "arrow" of time moves in the opposite direction, the processes will be reversed in duration. The speed of time will be huge and Hinduism - the religion saying that the universe, once in several billion years begins to develop again, outstripped the theory of Neil Turk and Paul Steinhardt 2006g. Description of Nature, as a "star" and "triangle", create a ban on the existence of two "arrows" of time. The joint combination of "star" and "triangle" will not allow us to perform useful work and makes the process of the evolution of matter impossible.

### **On the origin of life**

Principles of the origin of life and the laws of its development are considered separately, but the moment presented is of particular importance.

For the origin of life, we need planets. For the emergence of planets, there should be "centers" of planetary formation. The gravitational impact of the Sun is small, to create the gravitational "center" of Saturn and its rings [1]. What process sets the conditions for the formation of planets, after the

explosion of supernovae?

"Centers" arise with rapid compression. For fast compression, the corresponding gravitational force is needed. Gravity is the counteracting process of the transformation of the ether into matter and energy. Any opposing process occurs after the start of the process, i.e. goes with a time lag. Breaking the explosion of the unity of star matter, dramatically reduces the speed of the process of transformation and release of energy, while retaining the enormous force of gravitational attraction. Outwardly, the situation looks like a sharp opposition to the process of a supernova explosion. The flying matter of the supernova, within a few radii of the former star, receives a pulse of compression. The momentum creates vortices in the scattering array. Vortices, when the mass of the star are expanding, begin to form "centers" for the formation of planets. The characteristics of the supernova and its explosion form the place and size of future planets, around the future star.

### **How does $MV \leftrightarrow TE$ oscillate?**

Let us find an analogy based on the following conditions:

- a) Two systems interact;
- b) The reverse course of interaction begins when the maximum potential of one of the systems is reached;
- c) the interacting systems are closed to each other.

These conditions are satisfied by the oscillatory circuit LC, where L is the inductive coil, and C is the capacitor. If the transformation  $MV \leftrightarrow TE$  corresponds to the oscillatory circuit, the circuit must emit or receive something. In other words, with the movement of time, "something" must be radiated or absorbed. With the existing "time arrow", energy is released and matter is formed. For the motion of time, the return energy will require energy. Where do you get energy from? Energy can be taken by absorbing photons. There are few photons in the universe. Where else can we get energy? Note that electromagnetic radiation, which has a temperature near zero Kelvin, becomes Space. Therefore, the energy, for the transformation of matter into the ether, Nature can take by absorbing Space. In order to pull the space, matter must have a temperature much lower than absolute zero. This temperature is real, with the reverse "arrow" of time. Consequently, with the reverse course of time, matter will cool to temperatures that are now impossible. Now, theoretically, there is no limit to the temperature above zero Kelvin and there is an absolute zero temperature. With the "backward arrow" of time, there will be no lower temperature limit. There will be an absolute maximum of temperature.

### **How wrong theories and hypotheses arise. Example**

Erroneous theories do not arise from scratch. It is necessary to have an error, to create an erroneous theory. Consider the beginning of the emergence of an impressive theory.

#### **Elementary particles.**

Three degrees of defect motion create a particle.

- $MdV$  the defect of the volume of matter is a charge. The relationship between the degree of motion and the volume defect, explains the existence of particles with a charge of a multiple of  $1/3$  of the elementary charge. The charge of an electron is an analog of the energy of "gas". Analogues of the "liquid" and "solid" defect of the volume of matter have, respectively, charges of  $2/3$  and  $1/3$  of the electron charge;
- $VdM$  defect mass of matter is a neutrino. Neutrinos, having three degrees of motion, have no rest mass;

The absence of the third degree of motion in the magnetic field makes it inertial (there is no third volume defect - there must be rest mass);

- $TdE$ . What is the defect in the energy of the ether? Whatever the potential of time was constant, a particle of energy must move at the speed of light. At the speed of light, there is no movement of time.

Where is there no time movement in Nature?

1. Physicists say that where there is no matter. Matter is absent in the "pure" Space. To make the potential of Time constant, Space must move at the speed of light. This conclusion is the opposite, from the existing in physics view, that Nature moves in Space, with the speed of light. It is "All the contrary", regarding the opinion of specialists in the theory of relativity, causes numerous attempts to refute the TO and STR. If we approach these theories as the results of Lorentz transformations, then both sides are right, like the situation with a glass half filled with water.

This option will be left as an explanation of the reasons for the confrontation around the maintenance and service station.

2. When a particle moves at the speed of light.

At the speed of light, electromagnetic radiation moves. Consequently, a photon is an elementary energy particle. Complexity allows us to be an elementary particle of energy ( $TdE$ ), the entire spectrum of photons.

Remained a fraction of the time  $EdT$ .

$EdT$  - constancy of energy, with the motion of time. What is the energy constant? At zero. Zero energy is observed:

a) matter, at absolute zero temperature.

b) the absolute space at rest. Consider.

The moment "now" is the point on the arrow "Future is the Past". Simultaneously, the moment "now" is a point in space. A point in space can be if the moment "now" is part of the space. Consequently, the present moment "now" is space and time. Emerging, when the ether is transformed into matter, a new moment "now" adds its own part of the volume to the existing space. The sum of the past moments "now" created the existing Space of the Universe. New moments "now" expand the existing space, therefore space is a product of time, space, as a product of time, allows the Past and the Future to be present in it.

In fact, the moment "now" is the future space. Movement in Space, there is a movement in the past moments "now", which creates a change in the tempo of time. With the backward arrow of time, the standard size of Space will move in time. The size of the standard size of the Space is the inverse of the Planck constant. Consequently, the reverse course of time is a short-lived process.

The space arose from the moment "now". The strings that create the Space arose from energy. Energy is released when the matter moves in time. The mass arose from the transformation of the potential of time into mass. The volume arose as the evolution of Space. Therefore, the Proto-Nature, this initial Time or Time, existed before the emergence of the existing Nature.

The process was as follows. Time was accumulating. Accumulation has led to the emergence of the movement of time. Time could move only in itself. The evolution of the potential of motion has created the form of moving time - the moment "now". Intermediate stages were the emergence of temporary fields and waves.

### **Conclusions.**

a) at the moment of the formation of the material world, space was a point.

b) "Space for time point and vice versa". For yourself, space is "Everything". "Everything" can not be a reference point, so there is no absolute coordinate system. The point can be taken as a reference frame. In Space, the absolute starting point is time. In Time, absolute

The point of reference is Space.

c) Space is the sum of past moments "now". The space stores information about the Past and provides an opportunity to realize the future through the moment "now".

Conclusion. Space and moment "now" is a form of time. Equivalence allows matter to move in Space with the moment "now".

If such views took the upper hand in science, then it is very difficult to refute them. In the theory put

forward there is an error - the conclusion that space arises from the period of transformation. What changes this error? If space arises from the moments "now", the accumulation of space, creates the opportunity to travel through time and know everything about the past. Other absurdities are small. The rest of the theory is true. The supporters of the theory have facts. Opponents, not having a motivation against the statement: "If we can not now this does not mean that this is impossible," will take care of small nonsense. Supporters of this view, for resolving the absurdities, will be advanced additional theories. One error will create an increase in the number of theories.

### **Conclusion**

The application of the reverse interpretation of Noether's theorem determined the reasons for the stability of space, in the form of a scene, for the processes that are taking place. Based on the constancy of space and the continuous movement of time, a logical and mathematical analysis of the relationship describing the mutual relationship of matter and the physical vacuum is made.

Mathematical analysis of the ratio explained the processes that occur when the aggregate state of a substance changes. The conclusions of the analysis gave a description of the causes of the physical processes that modern physics states, without giving a clear explanation of the causes of their occurrence (gravity, time). Proceeding from the existing unity of matter and physical vacuum, extrapolation to the processes of the origin of the universe is made. The analysis removed the existing limitations in physics: the starting point for the origin of the universe is made by the point of inflection; a variation of one equation describes classical, relativistic and quantum motion, etc. The conclusion is that the "arrow" of time can have a reverse direction. The change in the direction of movement of the "arrow" of time creates the periodicity of the existence of our direction of development of nature by the type of uroboros (material nature with spiritual images (and thoughts)). The reverse process is the development of the ethereal nature of nature, with material images and thoughts - the type of the collapsing sphere. It is assumed that the macroprocesses associated with the movement of time are analogous to the connection of conductors of a 3-phase electric current, such as "star" and "triangle". An example of the occurrence of an error is given, with a logical interpretation of the relationship between matter and the physical vacuum.

#### Literature:

1. [https://wiki.naturalphilosophy.org/index.php?title=Thierry\\_De\\_Mees](https://wiki.naturalphilosophy.org/index.php?title=Thierry_De_Mees)