

#### Research Article

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### Nature as an Objective Reality (What is Nature?)

#### **Robert Yusupov\***

Independent researcher Vladivostok, USSR

#### \*Corresponding Author

Robert Yusupov, Independent researcher Vladivostok, USSR.

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#### **Abstract**

All people of our planet and every person individually should know the truth about NATURE. After all, we are all children of NATURE. The author believes that he was able to achieve a true understanding of the structure of nature, its fundamental laws and its evolution algorithm. This is a completely scientific understanding. This understanding is based on the philosophy of dialectical materialism. And this is the only true and scientific philosophy. The secrets of nature discovered and learned by the author of this article are offered to your attention, dear readers. Since childhood, we ask ourselves and others the question "What is nature?" The correct and true answer is given to us by materialists, dialectical materialists. Nature is an objective reality that exists outside our consciousness and independently of our consciousness. Nature is everything that surrounds us, and ourselves. Everything that surrounds us and we ourselves belong to and exist in nature. Nature is everything. There is nothing and no one in the world that would not belong to nature.

The concept, category "nature" is the broadest concept. There is no more comprehensive concept. All this is wonderful, all this is true. But I want to specifically imagine all this and grasp it with my mind's eye. "Nature exists absolutely, without relation to anything or anyone" - this is the first concrete fact and the first concrete truth, with which, perhaps, the scientific knowledge of nature begins. The author of this article has a solid starting position, a large reserve. These are his results of scientific research within the framework of the scientific project "Theory of Nature" (TN). In 2021, the book of the same name "Theory of Nature" was published. TN is a scientific and dialectical-materialistic Revolution in physics and cosmology (cosmogony). Within the framework of this article, from the position of the only true and scientific philosophy of dialectical materialism and based on the revolutionary "Theory of Nature", the fundamental question, the problem "What is NATURE" is solved? As it seems to the author, this is perhaps the limit of our knowledge of nature.

**Keywords:** Nature, Principles of Nature, Objective Reality, Singularity, Matter, Dialectical Materialism, Laws Of Nature, Evolution Of Nature, Universe, Evolution Of The Universe, Fundamental Question Of Philosophy, Fundamental Question Of Physics, Connection Between Philosophy And Physics, Concrete Matter Of Nature, Elementary Particles, Quantum Of Matter, Grain Of Matter, Time, Quantum Of Time, Essences Of Nature, "Theory of Nature"

#### 1. Introduction

This article presents my personal view of nature, its structure, its evolution. I consider my subjective view of nature to be identical to the objective understanding of nature (its structure and evolution) as an objective reality. Nature as a whole and basically is as it is described and presented in this article. This article is only about inanimate nature. It is about the nature that preceded the appearance and origin of life. On the basis, on the foundation of this inanimate nature, the spontaneous generation of life occurred.

This understanding of nature is a completely dialectical-materialistic understanding. This understanding of nature is the point of view of modern dialectical materialism. I do not in

any way contrast modern dialectical materialism with Soviet dialectical materialism and the dialectical materialism that was the state philosophy in the USSR. It is one and the same dialectical materialism. But dialectical materialism is not a frozen dogma, but an ever-living, developing scientific theory ("a living organism"). Dialectical materialism does not stand still, it develops and improves together with and in accordance with the development of science, with the receipt of new scientific data, results, conclusions, with the establishment and discovery of new scientific facts. If in the process of scientific development previously accepted concepts prove to be untenable or false, then science parts with these concepts. Dialectical materialism, following science, following the development of scientific thought, theory and practice, also rejects

outdated concepts and views that were previously in circulation (weight, significance) in science.

Modern science, which concerns physics and cosmogony (cosmology) first of all, received its further powerful and offensive development and advancement in connection with the appearance of the "Theory of Nature" (TN) and its scientific achievements. We will not wait for permission or blessing, "approval" from the modern party of physicists (MPP) in this matter, the question of the "Theory of Nature", as a powerful impulse in the development of modern physics and cosmology. This party over the past 10 years has not been able to correctly and accurately assess the scientific value, significance and validity of the "Theory of Nature", to understand that TN is a scientific Revolution in physics. All these are facts. I recommend everyone to read this book and related articles [1, 2, and 3].

Below I will express some objective statements of a general nature regarding the "Theory of Nature".

TN is a scientific revolution in physics and cosmogony (cosmology).

TN is a powerful breakthrough in our knowledge of nature and its fundamental laws.

TN is an event of world-historical significance in the modern scientific world.

TN is a beacon (torch) illuminating the true path in modern science. Within the framework of the "Theory of Nature", about 40 fundamental problems of the foundations of physics and cosmogony (cosmology) have been solved. These same problems are fundamental problems of the foundations of nature and the universe. Each fundamental problem solved within the framework of TN is worthy of a Nobel Prize in physics or cosmology. The scientific potential of TN is 40 Nobel Prizes in physics (cosmology). TN is a new dialectical-materialistic physics and cosmology.

TN is organically and inseparably linked with the only true and scientific philosophy of dialectical materialism. The philosophy of dialectical materialism is the philosophical core of the "Theory of Nature". This, ultimately, was the determining and decisive factor in the scientific successes and achievements of TN. At this point I will pause and invite the esteemed readers to look into the "Theory of Nature" [1, 2, 3] themselves, both to check the correctness of what has been stated and to study TN.

Of all the achievements of TN I will mention one. This is the fundamental question of physics and all natural science. It sounds like this:

# "How is matter specifically represented and manifested in nature"?

I believe that this question, at the same time, personifies and represents the third side of the main question in philosophy (MQP). After all, physics and philosophy are closely connected. Let me briefly remind you that according to F. Engels and his article "Ludwig Feuerbach: The End of Classical German Philosophy", the main question of philosophy (MQP) has two sides.

The first side of the MQP is: "What is primary in nature, the

material or the ideal, matter or idea, matter or consciousness?" The second side of the MQP is formulated as follows: "Is nature knowable or not by our consciousness?"

I, as a dialectical materialist, introduce a necessary addition and clarification to the classical version of the two-sided MQP. And this will be the third side of the main question of philosophy. This will be a completely appropriate, natural, organic and necessary addition.

The third side of the main question of philosophy (MQP) will be presented by the question: "How is matter specifically manifested and represented in nature"?

There is a simple, clear, unambiguous solution to this question: "The content of elementary particles is the "pure", concrete matter of nature".

This is a weighty and significant argument, a contribution from the "Theory of Nature" to the further creative development of the theory and practice of the philosophy of dialectical materialism. This is a novelty in modern dialectical materialism. We have made the transition (ascent) from the philosophical category of "matter" by means of the method of dialectical ascent from the general to the particular (concrete) from the general category of to its concrete prototype in nature, to the concrete representation of matter in nature. This is a purely philosophical problem. A clearly practical solution to this most important problem of philosophy is presented. And this is also a novelty in modern dialectical materialism. Another important contribution to the further development of dialectical materialism (and our true understanding of nature) from TN is the establishment of an inseparable connection between the two most important entities of nature - matter and time. This connection is so close that we can speak of the identity of time and matter of nature "time = matter". This is also a novelty in modern dialectical materialism.

An important contribution to our understanding of the structure and evolution of nature is the final solution to the question of space. According to the conclusions and results presented in TN, there is no, no space of nature in nature, as such, as some natural entity. This solution is also an invaluable contribution to the further creative development of the ideas, theory and practice of the philosophy of dialectical materialism. This is certainly a novelty for modern dialectical materialism. It is possible and necessary to say boldly and honestly that TN itself is a further creative revolutionary development of the theory and practice of the only true and scientific philosophy of dialectical materialism.

The modern stage of development of the philosophy of dialectical materialism is directly connected with the achievements and successes of the "Theory of Nature" in the field of physics and cosmology. Here is another bright positive and inspiring example of the inseparable, indestructible, organic unity of physics and philosophy. The influence of physics and philosophy is mutual, interdependent.

Another striking achievement and accomplishment of the "Theory of Nature" and, at the same time, the further creative development of the theory and practice of the philosophy of dialectical materialism is the solution to the problem (question) of nature.

"What is Nature?" "What is the structure, the arrangement of nature?" "How does the evolution of nature and the Universe occur?" "How are nature and the Universe related?" "Are nature and the Universe eternal?" "What was the beginning of nature and the Universe?" These are the problematic questions associated with the concept, with the category "nature". The solution to these questions and problems is presented in my article "A Word on the Nature of a Dialectical Materialist" [2]. This article was written in 2023, 2 years after the publication of the book "The Theory of Nature" [1]. And this article significantly clarifies and revises the corresponding conclusions of TN regarding the evolution of nature (and the Universe). But in present article my updated (in comparison with the book [1] and the article [2]) understanding of nature and its evolution will be presented. I hope that my understanding of nature will also be the general understanding of nature for the entire party of modern dialectical materialists. Let us now move on to this presentation.

#### 2. Principles of Nature

Nature is an objective reality that exists outside of our consciousness and independently of our consciousness.

Nature exists absolutely.

Nature cannot not exist.

Nature exists without relation to anything or anyone.

The existence of nature is self-existence.

Everything that surrounds us and we ourselves belong to nature and exist in nature.

Everything that exists (except nature) belongs to nature and exists in nature.

There is nothing and no one in the world that does not belong to or does not exist in nature.

Nature is Fundamentally Material and Dialectical. Materiality and dialecticality are the basis of nature

< Explanation>The materiality of nature means that all natural bodies are material bodies. And material bodies, in the end, ultimately, in their original basis consist of the matter of nature. It is clear, and this must be understood, that it should be said and kept in mind beforehand that all material bodies "ultimately" (in preliminary order) are represented by an ordered set of minimal material bodies, elementary particles (EP). But in turn, "the content of the EP is "pure", concrete matter of nature".

The dialectic character of nature means that all material bodies in nature are in constant motion. Motion is an attribute (the most important property) of matter. There is no motion in nature apart from matter, just as there is no matter without motion. The dialectic character of nature is also manifested in the fact that the quantum of matter (we will talk about it further), being the material "first brick" of the universe, is in a state of continuous pulsation (internal movement of matter). The pulsation of the quantum of matter is

a strictly periodic harmonic process in nature, occurring in the rhythm and tempo of nature. This is a process that occurs with a strictly constant frequency, with the frequency of nature.

A "frequency" is a concept that is mutually inverse (opposite) to the concept of "time".

Thus, in the pulsating quantum of matter, nature itself unites matter, movement and time in a single, organic, inseparable, fused together in one single, inseparable natural entity. In this connection, on a legitimate scientifically substantiated basis, we can quite well speak of a natural triune entity: "matter + movement + time" ("quantum of matter + pulsation + frequency"). One pulsation cycle of a quantum of matter (EUM) is carried out in a time equal to one quantum of time (EUT).

In this regard, it is appropriate and makes sense to talk about the law of pulsation of a quantum of matter (LPQM) as a law of nature. The quantum of matter is the unique material "first building block" of the entire universe, of all nature. < End of explanation>

Let us continue listing the principles of nature

Nature exists and evolves according to its own laws and its own logic (dialectical logic).

Nature is axiomatic.

Nature is algorithmic. There is an algorithm for the evolution of nature.

Nature is logical.

Nature is self-sufficient.

Nature is its own complete mistress.

Nature does not need a god (supreme).

Nature absolutely and completely does not need the service of "god" imposed by certain social forces.

Nature is not controlled by anyone or anything.

Nature is not accountable to anyone or anything.

Nature is knowable.

Nature is simple and economical.

The largest material object in nature is the Universe.

There is no space as such, as some kind of natural entity in nature. A space does not exist.

#### 3. Nature

Nature, as an objective reality, accommodates, contains everything, the entire material world. Therefore, the concept of "nature" is the most general concept. There is no more general concept. Now, after this long but necessary introduction, we can continue our conversation about nature. According to modern dialectical materialism nature is defined as "a five":

#### Nature ::= < Singularity, UCN, Matter, Emptiness, MLN>.

(1)

The symbol "::=" means "by definition there is".

- **1. Singularity** is a special, unique area of nature or a special, unique natural mechanism.
- **2.** UCN =  $1.210\ 256 * 10^{44}$  is a unique constant of nature (the Universe). It is a 45-digit decimal number. Currently, only the first 7 digits of this number are reliably known. We have yet to learn the

more precise meaning value of this unique and universal constant of nature (the Universe).

- 3. MLN Main Law of Nature.
- **4. Emptiness** is the absence of matter or Singularity.
- **5. Matter** is the matter of nature. In nature, matter is represented mainly by quantum of matter (EUM).

This quantum of matter (EUM) is the first type of matter in nature. A quantum of matter (EUM) is a material "first brick" of the foundations of the universe, the foundations of nature. All elementary particles are formed from quantum of matter. One quantum of matter (EMU) forms one elementary particle (EP). Atoms and molecules are formed from EP. Then chemical elements are formed. And all material bodies of nature are formed from the chemical elements. That is why we say that nature is fundamentally material.

The second type of matter of nature is the natural unit of matter. (NUM). This type of matter (NUM) is represented by material NUM-objects. This is the final product of the functioning of the Singularity. Immediately after its formation, the material NUM-object is emitted by the Singularity into the surrounding "space", into the surrounding vacuum. After some time, after its emission by the Singularity, the NUM-object disintegrates (falls apart) into UCN quanta of matter (EUM). From the quanta of matter, ultimately, all material bodies of the Universe are formed, the entire Universe is formed.

Emptiness separates quanta of matter (EUM). There is no emptiness inside a quantum of matter (EUM). Emptiness separates material vacuum dust (MVD) particles. Emptiness and MVD type matter form a vacuum.

The third type of matter in nature is material vacuum dust (MVD) particles.

The Universe (according to TN) is not eternal. The time of existence and evolution of the Universe is finite. After the completion of the evolution of the Universe, all the matter of the Universe and these are quanta of matter (EUM), turn into the third type of matter, this is material vacuum dust (MVD). In fact, MVD is the ultimate state of a quantum of matter (EUM). Vacuum is emptiness and material vacuum dust (MVD). Vacuum is present everywhere in the Universe. But the matter of vacuum (MVD), being the matter of nature, is not the matter of the Universe. It is important to understand this. The matter of the Universe is only the matter emitted by the Singularity. This is the matter of the NUM (natural unit of matter) and EUM (quantum of matter) type.

#### 4. The Process of Functioning of the Singularity

The Singularity functions as follows. The input of the Singularity is material vacuum dust (MVD), this is the raw material for the functioning Singularities. Singularity (like a pump) captures a certain amount of material vacuum dust (particles) and forms, shapes one natural unit of matter (NUM) in the form of a material NUM-object. Immediately after its formation (creation), the material NUM-object receives an initial impulse from the

Singularity and is radiated by the Singularity into the external environment, into the surrounding vacuum. Having received an initial impulse from the Singularity, the material NUM-object begins to move by inertia rectilinearly and uniformly away from the Singularity in the radial direction. This movement with an initial speed equal to the maximum speed of movement in nature (in the Universe). For the modern era of the Universe, this speed is equal to the speed of light in a vacuum. In order for the Singularity to function smoothly and without stopping, it is necessary that the raw materials are always in sufficient quantity near the Singularity. This can be ensured by means of the law of nature on the priority and prevailing movement of material vacuum dust, particles (MVD) in the direction of the Singularity.

The process of the functioning of the Singularity is a strictly periodic, harmonic process, occurring in the rhythm and tempo of nature. In this regard, we can speak of a law of nature, the law of the functioning of the Singularity (LFS). This is similar to the process of pulsation of a quantum of matter. In this regard, we can also speak of a law of nature, the law of pulsation of a quantum of matter (LPQM). We have already mentioned this earlier. One cycle of the Singularity's functioning is carried out in time equal to one quantum of time (EUT).

#### 5. Algorithm of the Evolution of Nature

Now it is time to draw a general scheme of the algorithm of the evolution of nature. The algorithm of the evolution of nature implements the main law of nature - the law of the circulation of matter in nature (LCMN). Here is a general scheme of the algorithm of the evolution of nature:

$$...\{[...MVD==>S==>NUM]==>EUM==>U\}==>MVD...(2)$$

The following new abbreviations are used in this general scheme: S - Singularity,

U – Universe.

The ellipsis (...) on the left in this general scheme indicates that nature has no beginning.

The ellipsis (...) on the right in this general scheme indicates that nature has no end.

The square brackets in this general scheme highlight the part of the diagram related to the functioning of the Singularity. The fragment of this diagram, enclosed (taken) in square brackets, represents one cycle of the Singularity's functioning [... MVD==>S==>NUM]. Material vacuum dust (the third type of matter) is "packed" by the Singularity into material NUM-objects (the second type of matter).

The process of the Singularity functioning is a chain of these cycles. This chain is infinite. It has neither beginning nor end. This corresponds to the fact that the process of the functioning of the Singularity is an eternal process. The eternal, unceasing functioning of the Singularity explains the eternity of nature. Singularity (according to TN and according to this general scheme) is a kind of perpetual motion machine (mover) of nature. The Singularity, as a natural mechanism, receives raw materials, matter of the third type (MVD, material vacuum dust, particles) at the input,

and produces a finished product (result) in the form of a material NUM-block at the output, which is emitted by the Singularity into the surrounding vacuum and receives an initial impulse. All matter produced by the Singularity goes further, after the decay of NUM-blocks into matter quanta (EUM), to the formation and construction of the Universe. The matter of nature constantly enters the Universe from the Singularity during the entire period of evolution of the Universe. Thus, the Universe is the largest material object of nature, constantly expanding in its size. This expansion is symmetrical relative to the Singularity. Thus, the Universe expands from the Singularity. And the Singularity plays a kind of role as the center of the Universe. This center (Singularity) is the only supplier of all matter to the Universe. Figuratively, the Singularity can be considered a "fountain of matter" in the nature (Universe). But the Singularity is not its own part of the Universe. Singularity belongs to nature, it is the essence of nature. After the evolution of the Universe is complete, Singularity does not stop functioning. Singularity continues to produce, "generate" matter for a new universe. The change from one universe to another occurs without any breaks. But how the "inner kitchen" of Singularity is arranged, no one knows. Singularity can be conditionally considered as a kind of "black box" with a known input and known output.

The curly brackets in this general scheme indicate, highlight (designate) the part of the diagram related to the evolution of the Universe. The fragment of this general scheme, enclosed (taken) in curly brackets, is repeated in a cycle UCN<sup>2</sup> times. This corresponds to the total time of the Universe's evolution. This time will be UCN<sup>2</sup> EUT (quanta of time) or UCN NUT (natural units of time). In terms of our usual units, the total time of the Universe's evolution will be approximately 2.8·10<sup>34</sup> years. According to TN calculations, the current age of the Universe is approximately 124 trillion 666 billion 537 million 596 thousand years.

#### 6. Questions

The question arises: "And how, in what way is the counter of the number of cycles of the functioning of the Singularity for the time of the evolution of the Universe realized in nature?" Another question: "How is the transition from the evolution of one universe to the evolution of the next universe carried out (what is the mechanism)?"

One possible answer is "Apparently this counter is somehow built into the Singularity mechanism". But there is another explanation.

<Explanation>The process of pulsation of a quantum of matter can be considered as a strictly periodic sequence of changes in the increase and decrease of the proper sizes of a quantum of matter. A quantum of matter is alternately periodically deflated to some minimum state (a grain of matter), then inflated to some maximum size (an elementary particle). The lower limit of pulsation of a quantum of matter is a grain of matter. This is a single limit (the diameter of a grain of matter) for all quanta of matter. The upper limit of pulsation of a quantum of matter is an elementary particle. Moreover, each type of EP (proton, neutron, electron, etc.) has its own limit (the diameter of an EP). It is the size of the diameter of a

quantum of matter in its upper hypostasis ("elementary particle") that determines the type of the EP itself. The time of stay of a pulsating quantum of matter in the hypostasis of "elementary particle" is inversely proportional to its diameter in this state. But this is not a zero moment, an instant. From these explanations it is clear that the time of existence of an elementary particle is not a continuous time, is not a continuous process. The process of existence of an elementary particle (EP) is in its own way a "discrete process" ("discrete existence"). This existence of an elementary particle (EP) occurs as if "on the crest of a wave" of the process of existence of a quantum of matter, which pulsating in the rhythm and tempo of nature.

The process (and time too!) of the existence of an elementary particle occurs against the background of the existence of a quantum of matter. While the process of the existence of a quantum of matter is continuous, the process of the existence of an elementary particle is an intermittent, discrete process. If the process of the existence of a quantum of matter "corresponds" to a straight solid line, then the process of the existence of an elementary particle "corresponds" to a straight dotted line. The existence of an elementary particle itself is an intermittent discrete process, when periods of time of existence (dashes, dotted lines) and periods of time of non-existence (gaps, empty spaces) periodically alternate. The lower limit of the pulsation of a quantum of matter is a grain of matter. In essence, a grain of matter is a material carrier of the standard values of natural units of length, mass and time. And its diameter is a natural unit of length, a quantum of length (EUL). In the process of evolution of the Universe, there is a constant increase in the diameter of a grain of matter, i.e. a quantum of length (EUL). Thus, a quantum of length (EUL) is an increasing value and a function of the age of the Universe or universal time. Within the framework of "Theory of Nature", this dependence is established. The quantum of length changes within certain limits in the process of evolution of the Universe. At the end of the evolution of the Universe, the quantum of length reaches its maximum, the largest size. And this will become the lower limit of the pulsation of a quantum of matter at the end of the evolution of the Universe, and the quantum of matter itself (matter of the first type) will smoothly and imperceptibly (not abruptly) pass (turn) into a particle of material vacuum dust (MVD, the third type of matter). <End of explanation>

#### 7. Evolution of the Universe

The Universe will complete its evolution and mission and will sink into oblivion. Nature has no "annals of history" to record the history of the evolution of the Universe. Nothing will remain of the Universe. No information will remain. Nothing will be passed on by inheritance. Everything will disappear into nowhere and forever. All matter in the Universe (these are quanta of matter, EUM) will turn into material vacuum dust (MVD) and will return to the complete "disposal" of nature.

The evolution of the new universe will begin with a "clean slate", with empty contents of the Universe. The Singularity will continue its normal functioning, according to its purpose in nature. The

Singularity will continue to produce material NUM-objects in its (and nature's) previous rhythm and tempo. But this matter will go to the construction of a new universe (the "heir" of the old one). All matter produced, developed by the Singularity goes only to the construction of the universe. And this matter, the amount of this matter, is the only original characteristic of the universe. This is a variable value (M), changing during the evolution of the universe in the range from 1 to UCN<sup>2</sup> if the matter is taken into account in natural units matter (NUM). All other characteristics of the Universe are functions of the amount of matter (M) in the Universe. These are characteristics such as (1) the absolute age of the Universe or the absolute universal time, (2) the diameter of a grain of matter or quantum of length (EUL), (3) the maximum speed in nature (in the Universe) (MVN), (4) the gravitational value of the universe (GVU).

Quantitative characteristics (of a constant nature) for the matter of nature are expressed through the unique constant of nature (UCN). These are such characteristics, as (1) a quantum of matter EUM=UCN<sup>-1</sup>, (2) a natural unit of matter NUM=UCN EUM. (3) The amount of matter in the Universe in the first natural unit of time (1 NUT=UCN EUT) is the value of UCN NUM. (4) The total amount of matter in the Universe at the moment of completion of evolution Universe (UCN NUT) will be equal to UCN<sup>2</sup> NUM.

If the current age of the Universe (in NUT units) is denoted by the symbol A, and the current amount of matter in the Universe (in NUM units) is denoted by the symbol M, then the following simple relationship holds (numerical quantities): A = M/UCN, M=A\*UCN. More detailed information is presented in my book "The Theory of Nature" [1].

It should be said here that all quanta of matter in nature pulsate strictly synchronously in a single rhythm and tempo of nature. Singularity also functions in this same natural rhythm and tempo. It is the Singularity, as a unique special mechanism of nature, that sets the rhythm and tempo of nature.

#### 8. One Important Formula

The formula for the dependence of the quantum of length (EUL) on the absolute universal time (absolute age of the Universe) is defined within the framework of the "Theory of Nature". This is the formula:

$$EUL = \sqrt[8]{A}/UCN.$$
 (3)

In this formula, the symbol A stands for absolute universal time (or absolute age of the Universe) in the quanta of time (EUT). The same formula will take the form:

$$EUL = \sqrt[8]{A/UCN^7}, \qquad (3')$$

if the quantity of time A (absolute universal time or absolute age of the Universe) is represented in natural units of time (NUT).

This change in the quantum of length (EUL) is a law of nature, the

law of change of the quantum of length (LCQL). Let me remind you that the quantum of length (EUL) is the diameter of a grain of matter

#### 9. Some Remarks

The general scheme of the algorithm of evolution of nature (2) also reflects the fact that in nature at any given moment in time there is only one Universe. After the completion of the evolution of one universe, the evolution of another universe immediately begins. The singularity does not stop functioning. The evolution of nature is essentially a sequence of successive evolutions of different universes in a continuous mode. We do not know and will never know the number of universes that existed before our Universe. But we know one thing for sure: nature has no beginning and nature will have no end. Nature is eternal. This is also a law of nature. More details and particulars can be found in the book "The Theory of Nature" [1] and in the following articles [2, 3].

I will repeat the following once again.

After the completion of the evolution of the Universe, all its matter appears in the form of MVD (material vacuum dust). Immediately after the completion of the evolution of one universe, the evolution of another universe begins. No information is transmitted from the universe that has completed its evolution to the universe that is beginning its evolution. No information about the course of the evolution of any universe is stored anywhere in NATURE. Every moment and instant of the existence and evolution of the universe is unique. With the completion of the evolution of the universe, everything connected with the evolution of this universe disappears into the abyss, vanishes into oblivion, sinks into oblivion, goes into oblivion, "dissolves into eternity", disappears without a trace, turns into "nothing".

#### 10. Laws of Nature (Briefly)

The following laws of nature were mentioned above:

- 1. The fundamental, main law of nature (MLN), the law of evolution of nature, also known as the Law of Circulation of Matter in Nature (LCMN).
- 2. The Law of Priority Prevailing Movement of Material Vacuum Dust in the Direction of the Singularity (LPPMMVDDS).
- 3. Law of Functioning of Singularity (LFS).
- 4. Law of Pulsation of Quantum of Matter (LPQM).
- 5. Law of Variation of the Quantum of Length (LQML).

These laws of nature govern the entire process of natural evolution, represented by general scheme (2).

#### 11. Final Remarks

Let's return to the formula of nature (as a "five"):

Nature ::=< Singularity, UCN, Matter, Emptiness, LCMN>.(1')

A few final words should be said regarding this formula of nature. Everything that is located on the right side of this definition ("five") is nature, it represents nature. All of these "five" together represent nature.

And each member of this "five" represents the primordial essence of nature.

Nature is inseparable from this "five". Nature itself is this "five". This entire "five" is an objective reality.

It should be especially noted that the unique constant of nature (UCN) is the most important essence of nature. It is the quantitative side (characteristic) of almost all global, fundamental material phenomena and processes in nature.

#### $UCN = 1.210\ 256*10^{44}$

Spaces as such, does not exist in nature. Space is not the essence of nature.

But the time of nature is real, objective, absolute, infinite, has neither beginning nor end. This is also an objective reality. But the time of nature appears before us in the form of a specific universal time (the absolute age of the Universe). Within the evolution of the Universe, universal time is absolute. In relation to the time of nature, universal time is relative. And natural time is absolute. The pulse (rhythm and tempo) of natural time is set by the Singularity. Within the evolution of the Universe absolute natural time and relative universal time are identical, they coincide completely.

Time of the Universe has a beginning and an end. Time of Nature has neither beginning nor end. Each universe has its own universal time.

Let's look again at the general scheme of the algorithm of nature's evolution:

... 
$$\{[... MVD ==> S ==> NUM] ==> EUM ==> U\} ==> MVD ... (2)$$

These very definitions (1), (1') and general scheme (2), supplemented by the necessary descriptions and explanations given in this article and within the framework of the "Theory of Nature" [1, 2, 3], represent the understanding of nature as a whole by the party of modern dialectical materialists.

This is the dialectical-materialistic understanding of nature and its evolution on a large scale. Nature is simple and economical.

With respect to the inquisitive reader,

Robert Yusupov from Vladivostok, independent researcher, dialectical materialist, Marxist, communist

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