

The Origin of the Universe. Philosophical Version

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Introduction

Philosophically examining the process of the emergence of the Universe, a situation of unsolvability of the problem without mathematics was obtained. It turned out two interconnected separate essays.

Mathematics.

Abstract

In the scientific and near-scientific physical literature, there are "mathematical tricks", used when describing physical processes. There are many situations of "good" physicists and "bad" mathematics. Math is a tool. The tool should be used for its intended purpose with recognition for the limits in their use. Mathematical limits are not considered by mathematicians and philosophers when describing reality. The article shows the need for restrictions in mathematical apparatus that is based on the processes of positive and negative feedback.

The existing world is real, mathematics is abstract. An abstract description of reality allows you to apply the mathematical apparatus without limit. The description takes place on the basis of an external view of the processes taking place. External view creates an understanding of the described processes. But! Abstractness and reality contain elements of polarity. Ignoring polarity, i.e. the possibility of a reverse interpretation of reality, creates a distortion of reality. Example 1. Differentiation, transforms a real line, to a point. By integrating, the real point can be described as a straight line, creating the illusion of a straight line. Consequently, the differentiation of real processes describes reality. Integration of a real state is capable of creating an illusion, i.e. distortion of reality. The integration refers to the introduction of additional qualities and entities to explain the behavior of the system. The introduction of new entities often occurs without explaining the qualities of the entities. Introduced "dark" matter, without explaining its properties. Amendments are introduced without explaining their origin. Example 2. For the existence of const, after differentiation, there must be a single variable min in the function - this requirement is described by the Noether's theorem. In nature, only time moves continuously. Consequently, the movement of time provides the basis for compliance with conservation laws. Taking time as a basis, it is necessary to recognize that time moves in reality. Abstract application of the concept of time, distorts the understanding of the real world.

Differentiation, in its essence, is a change (movement) and separation. Motion and change have a vector, i.e. magnitude and direction. The size and direction of the process specifies the vector. A concrete vector describes reality. Separation has two types, polar and functional.

The decay into polarities is described by the equation $y + x = const$. With polarity, a change of coordinates creates a multitude of views on reality. Example, a pair of "wolf - hare": The wolf is bad, consumes weak hares. Hares are bad, eat apple bark. Wolf and hare food chain. The wolf and the hare are representatives of nature.

The functional separation is described by the equation $xy = const$. To maintain unity and functionality, a real variable must have a minimum acceptable value. The minimum allowed value of the first variable limits the maximum to another variable. Constraints create a framework for applying mathematics. Ignoring the framework creates the possibility of polarity between the components of the system $xy = const$. Polarity allows you to have a lot of views. As a result, mathematics becomes an analogue of advocacy. The task of mathematics is to prove the correctness of the presented view of an existing fact. Compliance with the framework allows polarity to occur within the system components. This kind of polarity is analogous to competition.

Differentiation, in a closed system $xy = const$, converts one variable to a point of another variable. This ability creates the ability to transform one variable into another. Transformation can go irreversibly, cyclically (pendulum) and the gyre. The arrival or departure of a potential in a closed system creates a development of a closed system in an evolutionary or involutory manner, realized by changing the form or potential of the system.

Conclusion

An abstract description of the process of the origin of the Universe creates many illusory assumptions. The transition to the description of the existing reality of differentiation and the restriction of the application of abstract mathematics is able to objectively describe the emergence of the Universe and the processes in it.

Philosophy

Abstract.

In modern conditions, the views of philosophers, on the emergence of the universe, have faded into the background. The championing of this topic was taken by physicists and astronomers. Without a common concept, physicists and astronomers generate many models. Models have supporters and opponents, creating a struggle "For the truth." Everyone considers himself right and the carrier of truth. The presence of many controversial points of view shows that the truth is elsewhere. The task of the essay is to analyze the basic views of the origin of the Universe: "Matter has always existed" and "Initially there was emptiness".

Matter and Space have always existed or the Big Bang.

The existence of matter and space creates the question: "What was before" Always? "There is no answer, and the decision has been put off to some distant future. The independence of the existence of matter and space makes of space, a passive condition for the existence of matter. This statement contradicts the registered effects of space curvature by massive clusters of matter. The influence of space on matter has not been studied. Let us accept the statement: "If matter bends space, then space influences the behavior of matter", i.e. space and matter interact with each other. At the point of singularity, the high density of matter in space creates a significant curvature of space. In a curved space, the Big Bang will create a curved expansion of matter. Such a movement should leave its mark in the movement of galaxies and clusters of stars. This effect is not recorded. This calls into question the Big Bang.

At first there was emptiness.

To avoid using the same type terms Void, Space, Volume, let's call the Void, Essence. For the emergence of matter, the Entity must be fully or partially divided. Separation has two options. The first is the separation of different signs into parts. Decay into polarities is accompanied by the equality of the polarities $[x + (-x) = 0]$. Equality of polarities allows the system $[x + (-x) = 0]$ to be infinite, i.e. open.

The second is the division into functional parts, while maintaining unity. The division into functional parts is the division without the occurrence of polarity. Different, single and "non-

polar” are described by the equation $xy = const$. When $xy = const$, there is no process of neutralization and the process of transformation $x \leftrightarrow const / y$ is characteristic. The system described by the equation $xy = const$ is closed, but not isolated (the brain, as a functional organ, is closed, but not isolated from the body).

Disintegration into polarity will create a universe of matter and antimatter. The interaction of matter and antimatter creates a process of annihilation leading to the restoration of a state of emptiness. The absence of the annihilation process shows that the Entity has broken up into other components. According to existing views, annihilation occurs with the release of energy. Energy release is possible if the decay to polarity is accompanied by energy absorption. Decay, with energy absorption, requires an answer to the question “Where does the energy come from?” The answer to the question requires the application of the principle of integration - the introduction of new, previously unknown components. In order not to create clarity by introducing "fog" and "darkness", then this question is not considered. Let us return to the fact that the Entity has broken up into other components.

There is no mass in the Entity. The Essence is both a point and an infinity. The definition of "Point" and "Infinity" coexisted due to the lack of comparison. "Point" and "Infinity" Entities are volume. As a volume, "Point" and "Infinity" should be divided equally. The disintegration of the volume is possible on a pair of "form - shapeless." The median position of the Entity must meet the condition “form and formlessness”. In the existing Nature, the condition “form and shapelessness”, in the absence of a rest mass, corresponds to a photon - “wave and particle”. A photon is a particle of energy (E). Therefore, the Essence has Energy (E). Energy (E) is decomposed into energy without form and energy with form. In the existing universe, form is absent from space. Space has properties that indicate the presence of energy. Therefore, space is energy without form. Energy with form is described by the equation $E = MC^2$ or energy with form is the mass of matter.

Conclusions.

1. The similarity of photon and Entity, allows you to apply quantum physics when describing physical processes.
2. A photon is an analogue of the Entity and the transformation of a photon into a mass creates a fixed impulse.
3. Transformation of a photon into space bends space. The curvature of space affects the movement of photons and gravity. In nature, both processes coexist. Consequently, the absorption of photons bends the movement of passing photons and distorts the gravitational constant.
4. In accordance with the concept of Aristotle, the universe does not have the slightest amount of emptiness. Copying Aristotle, we get: "The universe has not the smallest volume without energy."

"Simultaneity" was and was not time. Simultaneity was time, being a point of reference for time and all time. The starting point is the “now” moment. All time is the potential of time (T). Simultaneity was not time, since time is the gap between events. The gap between events is created by the movement of time. Simultaneity (T) is a characteristic of the Entity. Characteristic of the Entity is its component. Therefore, the Essence combines time and energy into a single two-component system “ $Time \times Energy$ ” ($T \times E$). Each component of the Entity is shared independently of the other component. Energy Separation is discussed above. Consider the division of time.

The disintegration of the “Simultaneity”, into the polar pair “The Past - Future”, will create an equality of polarities, in absolute value. Polarity is realized by the influence of the Past on the Future and the Future on the Past. The past and the future are united by causal processes. With

absolute equality of potentials, equality of causal and effect-causal connections should be observed. A causal relationship exists in reality throughout the universe. The lack of equality between causal and effect-causal processes shows the absence of polarity, between the past and the future. But! There is no Absolute in nature. Any separation has an element of polarity, creating the possibility of the existence of causal relationships. Past and Future are different variants of the state of time. The transition from one state to another is called transformation. The transformation of "Simultaneity", separately for the Past and Future, is impossible. Consequently, in nature there is a transformation of Simultaneity into the past or Simultaneity is our future.

Between the past and the future is the moment "now." In the "now" moment, the transformation of the Future into the Past takes place. Transformation creates the direction of movement - the "arrow" of time. As a continuously existing transformation, the moment "now" is at rest. As a change in the ratio of the past: the future, the moment of "now" is moving. The existing movement of time shows that the separation of the Essence "*Time × Energy*" into space and matter is currently taking place, i.e. The universe is expanding. The "now" moment is one and has specific dimensions. Otherwise, it is possible to move in the "now" moment. The specific size of the moment "now" limits the number of transformable Future. The limited number of transformable Future T , limits the transformation of energy E , in the $(T × E)$ system.

Functional separation creates a certain level of polarity. The separation of the Essence "*Time × Energy*" ($T × E$) created the polarities "form - formlessness" and "past - future". The polarities "form - formlessness" and "past - future" tend to acquire a stable state. Stability is achieved by neutralization. Mutual neutralization returns everything to its original state and then repeats. Cross-neutralization creates low-polarity pairs of "the past has a form - shapeless future" or "the past is formless - the future has a form". In the existing world, matter has a form, the physical vacuum is formless. Simultaneity is future and has no form. Matter is the past.

Transformation.

For the transformation process, the ability to change its characteristics is necessary. A single system changes its characteristics by accepting or giving up a part. To implement a single transformation, the appearance and disappearance of characteristics from "nothing" or the ability to exchange characteristics with similar systems is necessary. The emergence of the Universe, from a single system, creates variants: "Out of emptiness, because it arose from emptiness "and" in emptiness arose, many universes." These responses are a response-shift away. So explain the origin of life on Earth, transferring it from other places.

The ability to transform occurs when min is a two-component and unified system. Two characteristics, for its existence, requires the presence of min 2-dimensional (flat) Nature. Consequently, the Essence "*Time × Energy*" ($E × T$) was a flat system. The decomposition of components ($E × T$), created from each component a double (flat) system. Four components arose in double decay: mass, volume, energy, and the "now" moment.

Two binary systems, mutually and independently exist in min 3-dimensional Nature. Such an arrangement of natural phenomena creates conditions under which all natural phenomena exist according to the general rules of the three-dimensional world. So that nature does not become 12-dimensional enough that all natural phenomena have the ability to be present in each other. The term "presence" refers to such an association, in which each volume component becomes a characteristic in the system, without changing the essence of the other component. For example, a unified system, called matter, is characterized by mass and form. Mass and form move together about time and have energy.

Can the real world be n-dimensional?

For the growth of dimensionality there should be a rule of dimensionality 1,2,3,4n. The rule means open, i.e. dual system (1 and 3 are dual to each other, with respect to 2). For the emergence of a 3-dimensional world, the immediate possibility is the disintegration of the 4-dimensional world into 3-dimensional and 5-dimensional and the disintegration of two-dimensional into 3-dimensional and one-dimensional. I have not met the 5th dimensional world, and I live in the real world. There remains the option of the collapse of the flat world, to a one-dimensional "arrow of time" and a 3-dimensional world. Perhaps a parallel occurrence is the opposite. One-dimensional world, with volumetric time. Volumetric time will allow to move in it, and the one-dimensional world will give a "arrow" of linearity.

Why is Space, matter, energy, etc. 3-dimensional? 5th dimensionality is more various. In existing conditions, the main property of Nature is the desire for stability. Stability is maintained at min. In the cases considered, the minimum for decay into integers is two.

Conclusion

The possibility of mathematics, to describe the existing world, has created from it an indisputable authority. Submission to authority created a situation where the essence of physical phenomena and processes could not be seen behind abstract mathematical formulas. Most importantly, the harmony (necessity and effectiveness) of Nature is forgotten.