

**About the possibility to solve the main problems of theoretical physics. The scientific discoveries by scientists in the Large Hadron Collider in CERN.**

**M. A. Gaisin**

**Annotation**

The author in his article shows the possibility to solve the main problems of theoretical physics by full revision of its basic principles.

**About the possibility to solve the main problems of theoretical physics.**

Lee Smolin in his book “The trouble with physics: the rise of string theory, the fall of a science, and what comes next” [1] shows five greatest problems of theoretical physics:

**PROBLEM 1:** To merge the general theory of relativity and the quantum theory into the one, which can claim to be the complete theory of nature. This is called the problem of quantum gravity.

**PROBLEM 2:** To solve the substantiation problem of quantum mechanics either by making sense of this theory as it is or by creating a new theory that has sense.

**PROBLEM 3:** To define whether different particles and forces can be united in one theory that explains all of them as the demonstration of the unique, fundamental essence.

**PROBLEM 4:** To explain how free constant values of the Standard model of particle physics are being selected in the nature.

**PROBLEM 5:** To explain the dark matter and the dark energy or, if they do not exist, to define how and why the gravity is modified in large scales. To explain in general why the constants of the Standard model of cosmology, including the dark energy, have these values” [1].

Thus, let us start studying the first problem. In order to merge the general theory of relativity and the quantum theory it is necessary that the original theories are accurate. The author of the article is convinced that these two theories are incorrect starting from their basic postulates. As the author thinks, the general theory of relativity is based on the incorrect concept of time. There is one moment in understanding the essence of time. What we measure by hours is the measure of reality state change, but there is only reality [10]. That is why the four-dimensional space-time which is viewed in the general theory of relativity as the physical object in fact is the abstract mathematical object. So, all the conclusions drawn from the special theory of relativity and the general theory of relativity about the physical reality are mathematical abstractions. Other authors also have logically based critics on the special and general theories of relativity. As for the quantum theory, there are no evident contradictions, and the calculations of the quantum theory have been proved experimentally. The author's ideas first came into conflict with the quantum theory when the author tried to describe the atom's electron shell structure [3]. Describing the atom's electron shell structure the author had to ignore the Heisenberg's uncertainty principle. The further meditations which were described in the article "The unified field theory" [7] helped to understand the reason of the inaccuracy of the quantum theory. This reason lies in the basis of the quantum theory. According to the author's point of view, the photon is a local spatially topological deformation moving in space [8]. That is why the photon is not some physically independent object, it is the space derivative. Aristotle's conclusion about the non-quantization of space [6] is proved by the astronomic data: - «Two groups of astronomers – one from the Alabama University, city of Huntsville, the other – from the astrophysical observatory in Archetly (Italy) – studied the pictures of remote stars and galaxies. The pictures turned out to be very sharp. According to the scientists' point of view, it contradicts with the hypothesis about the quantum nature of the time-space in micro scale since in this case the pictures of the remote objects would be fuzzy, blurred [2]. This lets us understand why the theoretical conclusions drawn from the quantum theory, for example, the

uncertainty principle, the charge conjugation symmetry, Dirac [magnetic] monopole – are wrong. Besides, the author thinks that conclusion from the Heisenberg's uncertainty principle about the unacceptance of the motion path notion for a micro particle, is one of the harmful mistakes of the science since this conclusion theoretically laps the possibility to imagine the physical view of the atom's shell and, correspondingly, the possibility to understand the charges physical nature [7]. It means that in order to solve the second problem we need to create the new theory that has the physical sense. The author did it in his article "The unified field theory" [7]. The third theory is also solved in this article – the proposed theory unites different particles and forces.

The fourth problem does not have solution since the Standard model with the notions of quarks and leptons which exist in six kinds each. Taking into account that the quarks have a variable called "color" which can have three values, eight typed of gluons became a mathematical abstraction of the theory of combinations which is not related with reality. And the free constants in the Standard model are required to adjust the theory to the experiments' results. The fifth problem has a solution if we approach right the theory of the Universe development as an evolutionary development of superdense massive substance cores in space which is the alternative to the Big Bang theory [5]. Considering that the Earth is a cosmic object and understanding the Earth evolution helps understand the evolution of the universe [4].

### **The scientific discoveries by scientists in the Large Hadron Collider in CERN.**

The scientists hope that the experiments held in the Large Hadron Collider will help to prove the theory of the Standard model by the discovery of Higgs boson. The author is going to study what is understood by the Higgs boson in theoretical physics. Thus, the Standard model assumes there is one more field which is almost inseparable from the empty space and does not coincide with the gravity field. This field is called the Higgs field. The whole space is considered to be filled with this field and all fundamental particles (leptons, quarks and calibrating bosons) acquire

the mass as a result of interaction with the Higgs field. That means that the space on elementary particles level is the Higgs field. The author's theory stated in the article "The unified field theory" coincides up to this moment with the Higgs field concept. There are only differences in terminology and approach to the gravity physical nature. After that the Standard model states that due to the corpuscular-wave duality at least one particle should correspond to Higgs field. This particle is a quant of the field named Higgs boson [13]. But the author has given above the convincing arguments about the not quantified space. It follows that the Higgs boson is a chimera of the quantum theory. Correspondingly, the experiments in LHC cannot fix what does not exist in nature. The experiments in LHC, probably, could confirm the data about the real proton and neutron structure discovered studying the space beams [7]. But it is unlikely with such theoretical bargain of physics. However, in 2012 it was announced that the Higgs boson has been discovered. And already in 2013, theorists were awarded the Nobel Prize for theoretical prediction of the existence of the Higgs. But there is a question towards the author - how possible to deny the discovery of the Higgs boson if this discovery is already a fact? But this is not as easy as it seems at first glance. First, there is a pure experiment, free of theoretical concepts. After the experiment and data processing, the experimenter must interpret them correctly, compare with the original ideas and draw conclusions. And since modern theoretical physics consists entirely of epistemological errors, correct interpretation of physical experiment is practically impossible. Therefore, the author believes that the Higgs boson is not a real material object, but a chimera of the standard model [14]. The author convincingly shows the fallacy of the standard model in his article - "The Standard Model of physics - the triumph of the absurd".

**Conclusion:** the decadence in science is due to the transition of the theoretical physics to the abstraction of mathematical formulas with the prejudice of the concept of physical picture of the world and the comprehension of the truth.

## Literature

1. Lee Smolin. «The trouble with physics: the rise of string theory, the fall of a science, and what comes next» Houghton Mifflin, Boston, 2006. Translated by Juri Artamonov. <http://www.rodon.org/sl/nsfvtsunichzes>, accessed on April 12, 2014.

2. «Will the astronomers' observations undermine the theoretical basis of physics?» Internet CNews. Source: articles of the “Nature” magazine. <http://kuasar.narod.ru/library/astronomy-and-physics/index.htm>, accessed on April 12, 2014.

3. M. A. Gaisin «Physical nature of rotation figures of atom's electron shells configurations formations (atom's electron shells configurations) Magnetic poles physical nature. Exchange energy physical nature». <http://www.sciteclibrary.ru/eng/catalog/pages/8706.html>, accessed on April 12, 2014.

4. M. A. Gaisin «Physical nature of origin of nuclears, of green-stone belts, ancient lithospheric plates and the Earth mantle». <http://www.sciteclibrary.ru/eng/catalog/pages/8684.html>, accessed on April 12, 2014.

5. M. A. Gaisin «The dark matter and dark energy nature. The Milky Way structure». <http://www.sciteclibrary.ru/eng/catalog/pages/8771.html>, accessed on April 12, 2014.

6. M. A. Gaisin “The continuum problem solution. (Continuity principle)”. <http://www.sciteclibrary.ru/eng/catalog/pages/8770.html>, accessed on April 12, 2014.

7. M. A. Gaisin “The unified field theory. Physical nature of gravitation. Physical nature of positive and negative charges. Actual physics of elementary particles. Proton and neutron structure. Physical nature of strong and weak

interactions”. <http://www.sciteclibrary.ru/eng/catalog/pages/8746.html>, accessed on April 12, 2014.

8. M. A. Gaisin “Positron – the mathematical “phantom” of real electron”. <http://www.sciteclibrary.ru/eng/catalog/pages/8902.html>, accessed on April 12, 2014.

9. M. A. Gaisin «About the left-right symmetry breakdown in nature». <http://www.sciteclibrary.ru/eng/catalog/pages/8966.html>, accessed on April 12, 2014.

10. M. A. Gaisin “The concept of time – conceptual catastrophe of the 20<sup>th</sup> century”. <http://www.sciteclibrary.ru/eng/catalog/pages/9336.html>, accessed on April 12, 2014.

11. M. A. Gaisin “The physical nature of the Kozyrev effect. The detection of the gravity waves”. <http://www.sciteclibrary.ru/eng/catalog/pages/8888.html>, accessed on April 12, 2014.

12. M. A. Gaisin “Visual concept of photon’s and neutrino’s physical nature. The proof of the absence of the “weak interaction” notion”. <http://www.sciteclibrary.ru/eng/catalog/pages/9348.html>, accessed on April 12, 2014.

13. N. Nikitin “It is time to look for Higgs”. <http://www.astronet.ru/db/msg/1176523>, accessed on April 12, 2014,

14. M. A. Gaisin “The Standard Model of physics - the triumph of the absurd” <http://www.sciteclibrary.ru/rus/catalog/pages/10172.html>, accessed on April 12, 2014.