MATHEMATICAL SCIENCES

IT FOLLOWS FROM THE EXPERIMENTALLY PROVEN PRINCIPLE OF THE PHYSICAL REALITY OF IMAGINARY NUMBERS THAT THE VISIBLE AFTERLIFE WORLD MENTIONED IN ALL RELIGIONS THE REALLY DOES EXIST

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Abstract

Rightly recognized as a great scientific achievement of physics of the XX century, the special theory of relativity (SRT), however, turned out to be incorrect, because at that time there was no experimental knowledge necessary for its creation, which had to be replaced by postulates. But not everything was guessed. And this is quite natural. All new theories are always subsequently refined and corrected. However, none of the many subsequent corrections and experimental refutations of SRT was not accounted for and still is not taken into account. As a result, SRT has remained uncorrected.

It is in this form that SRT is now studied in all physics textbooks, used in the educational process even in the most prestigious universities.

However, a corrected version of SRT has already been created, in which instead of the in-correct principle of non-exceeding the speed of light, the experimentally proven principle of physical reality of imaginary numbers, which refuted this postulate, is used. The corrected version of SRT has allowed to solve many unsolved in the noncorrected version of SRT problems. And from relativistic formulas of the corrected version of SRT follows the existence of numerous mutually invisible parallel universes. In the corrected version of SRT also it is explained that these invisible universes about which it is spoken in all religions, and are invisible afterlife world in which Gods and souls of dead dwell.

Keywords: imaginary numbers; complex numbers, hypercomplex numbers, WMAP, Planck, special theory of relativity, invisible parallel universes and antiuniverses, Multiverse, Hyperverse, portals, Gods, invisible afterlife world, souls of dead

1. Introduction

Created in the twentieth century by the works of Joseph Larmor [1], Nobel Prize winner Hendrik Anton Lorenz [2], Jules Henri Poincaré [3], Nobel Prize winner Albert Einstein [4] and other outstanding scientists, the special theory of relativity (SRT) [5]-[7] because of its use of the principle of relativity is rightly considered a very great scientific achievement. However, in the XXI century it was proved that this theory is incorrect, because:

- the relativistic formulas obtained in it are not correct;
- they've been incorrectly explained using the wrong principle of light speed non-exceedance;
- from them were made incorrect conclusions about physical unreality of discovered 400 years before creation of SRT by Scipione Del Ferro, Niccolo Fontana Tartaglia, Gerolamo Cardano, Lodovico Ferrari and Rafael Bombelli[2] [8] imaginary numbers and the existence in nature of our only visible universe, in which all measurements are carried out only using real numbers.

As can be seen from the graphs (see Fig. 1a,b,c) of relativistic formulas of this version of SRT

$$m = m_0 / \sqrt{1 - (\frac{v}{c})^2} \quad (1)$$

$$\Delta t = \Delta t_0 \sqrt{1 - (\frac{v}{c})^2} \quad (2)$$

$$l = l_0 \sqrt{1 - (\frac{v}{c})^2} \quad (3)$$

where m_0 is the rest mass of the moving body;

m - relativistic mass of the moving body;

Δt_0 - rest time of a moving body;

Δt - relativistic time of a moving body;

l_0 - rest length of a moving body;

l - relativistic length of a moving body;

v is the velocity of the moving body;

c - speed of light;

in the range of pre-light speeds $v<c$ all these quantities take values measured by real numbers, in the range of superluminal speeds $v>c$ take values measured by imaginary numbers, and at the speed equal to the speed of light $v=c$, the function $m(v)$ has a gap. Therefore, in the pre-light speed $v<c$

[2] And perhaps even before them imaginary numbers were discovered by Paolo Valmes [9], who was burned alive at the stake by the Spanish Inquisitor Tomas de Torquemada.

range formulas (1)-(3) have been explained. And in the superluminal range of speeds *v*>*c* the results of calculations in the form of imaginary numbers the creators of SRT could not explain. And in modern textbooks of physics they are not explained till now. After all, what is 5 meters, 6 grams and 7 seconds is clear to everyone, but what is 5*i* meters, 6*i* grams and 7*i* seconds, where $i = \sqrt{-1}$, and now no one can explain.

Moreover, as can be seen from the graphs of formulas (1)-(3), in the superluminal range of velocities v>c (see Fig. 1a,b,c) these formulas correspond to physically unstable processes that cannot exist in nature at all.

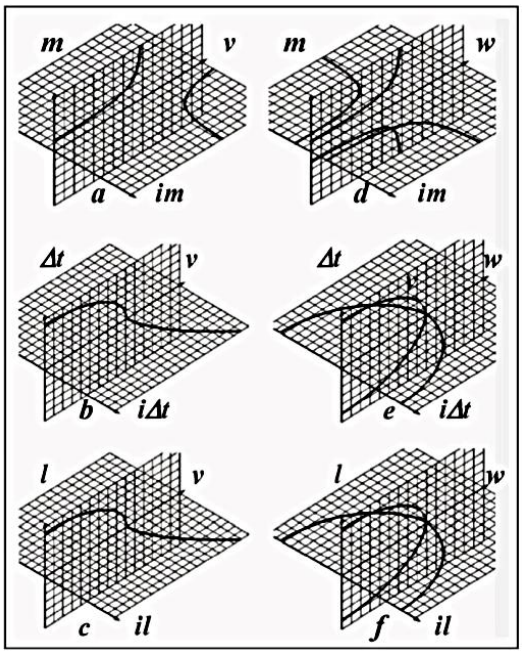

Fig. 1. *Graphs of functions* $m(v)$, $\Delta t(v)$ *and* $l(v)$ *corresponding to the existing and the corrected versions of the STR in the subluminal* $v < C$ *and superluminal* $v > C$ *ranges*

Indeed, let us assume that the material body in the range $v > C$ for some reason began to move faster. Then its mass according to the function graph $m(v)$ in Fig. 1a will decrease. But because of this lighter body will move faster. This, according to the graph of the function, will lead to a further decrease in the mass $m(v)$ of the moving body. And this will again lead to an increase in the velocity *v* of the material body. And so on. Therefore, in the end this material body with zero mass and infinitely high speed flies to 'nowhere'.

And assuming that the material body on the graph of the function $m(v)$ in the range $v < C$ for some reason began to move slower and reasoning in a similar way, we will come to the conclusion that this material body moving slower and slower, will overcome the point of astrophysical singularity ***v=c*** and, being in the range ***v<c*** will, stop.

So, at any point in the range $v > c$ on the graph of the function $m(v)$ the ongoing process will indeed be unstable and therefore cannot exist.

And so the fate of SRT hung in the balance. After all, no one would not need a theory that even its authors could not explain. But SRT was saved by the fact that in it introduced a postulate called the principle of non-exceeding the speed of light, the meaning of which is clear from its name. And from this postulate followed that the formulas (1)-(3) in the superluminal range of speeds $v > C$ do not need to be explained, since imaginary numbers allegedly do not describe any processes that do not exist in nature,

So the fate of the SRT hung in the balance. After all, no one would not need a theory that even its authors could not explain. But SRT was saved by the fact that it introduced a postulate called the principle of non-exceeding the speed of light, the meaning of which is clear from its name. And from this postulate followed that formulas (1)-(3) in the superluminal range of speeds could not be explained, as imaginary numbers no existing in nature processes are allegedly not described. Here in such a form the uncorrected SRT is studied in all textbooks of physics up to now.

Nevertheless, at the initial stage of creation of SRT such variant of its statement was quite acceptable, though it obviously contained, as well as all new theories, some misconceptions. However, at present, when it has been found out the fallacy of some assumptions used by its authors a hundred years ago, which are further explained, ignoring these circumstances is no longer justified. All the more that now such a corrected interpretation of SRT already hinders the development of the whole science.

2. Physical reality of imaginary numbers

But there are other sciences besides physics. Including electrical engineering and radio engineering created before SRT. And in these sciences the theory of linear electric circuits of alternating current is used, in which the fundamental is the Ohm's law discovered in

1893 in the interpretation of Steinmetz [10]. And a simpler version of this law for DC electric circuits [11], [12], studied now in school physics textbooks, was discovered by Ohm himself in 1826, when no electrical measuring device existed yet. About the physics of that time, the professor of the Imperial Moscow University, Alexander Grigorievich Stoletov wrote: *"...physics especially seduced natural philosophers. What a grateful theme for the most unbridled fantasies were electrical phenomena... Beautiful and vague deductions were in the foreground: painstaking work of the experimenter, precise mathematical analysis were not in honor; they seemed superfluous and harmful in the study of nature..."*. Therefore, in 1828 Om was dismissed from hiss job by the Minister of Education for publishing about the law he had discovered. The high-ranking official believed that the use of mathematics and experimental research in natural philosophy was inadmissible.

And Ohm's law as interpreted by Steinmetz is now used daily in practice by millions of electrical and radio engineers all over the world. Thereby, of course, confirming that it is true.

But in SRT the existence of this law is ignored, because from the postulate about the non unexceeded speed of light the conclusion about physical unreality of imaginary numbers is made, which is obligatory not only for physics but also for all other sciences. Including electrical and radio engineering. After all, mathematics is the common language of all exact sciences. Therefore, mathematics cannot be one in physics and another in electrical and radio engineering. And in SRT it is stated (although it is not written anywhere) that Ohm's law as interpreted by Steinmetz is wrong, because it follows from this law that electrical resistances of capacitors and inductors (also called inductance coils) are measured by imaginary numbers, and only resistances of resistors are measured by real numbers. Due to this circumstance imaginary resistances of capacitors and inductors SRT proposes to consider actually imaginary, i.e. physically non-existent.

Note - the formulation of Ohm's law in Steinmetz's interpretation states that imaginary resistances are measurable. And in fact, any electrical and radio laboratory has been using commercially available devices for measuring imaginary resistances and other imaginary electrical quantit- ies for many decades (Fig. 2)

But everything that can be measured always exists. This is the fundamental position of any science. If people in their activities did not use instruments, and relied on knowledge obtained only from their sensations, then science would not exist. And physicists can't help but know this. And

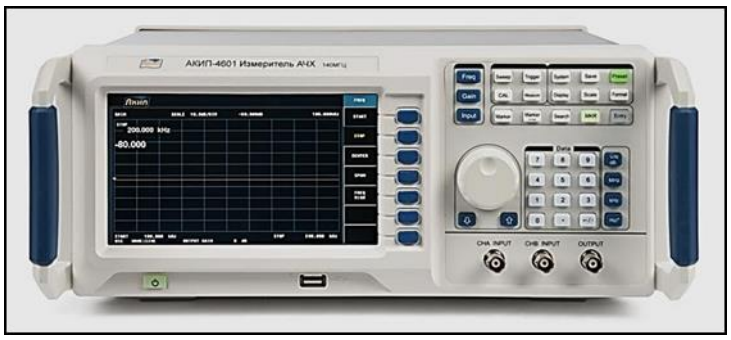

***Fig. 2**. In any radio-technical laboratory there are devices called frequency response meters, which prove the physical reality of imaginary and complex numbers by their mere existence*

since in electrical and radio engineering the resistances of capacitors and inductors, which someone unsuccessfully called imaginary, are in fact measured by existing devices, then they are not imaginary at all, but the most real physically existing ones.

Nevertheless, in SRT, in accordance with the principle of non-exceeding the speed of light, it is actually asserted that imaginary resistances of capacitors and inductors, since they are called imaginary, should not really exist. Therefore, electrical and radio engineering also should not exist [13]-[32].

In fact they existed even before the creation of SRT by publications of Einstein and Poincaré in 1905. But physicists of that time probably did not know and/or did not understand these sciences. They don't want to understand them now, since the theory of linear AC electric circuits is not taught to physics students.

Nevertheless, since in electrical and radio engineering the used imaginary quantities -

resistances, transfer functions, etc. - correspond to real physical entities (since they are measured), it proves in the most indisputable way that the named imaginary numbers contrary to the postulate of SRT about non-exceeding the speed of light not only in electrical and radio engineering, but always and everywhere in all sciences are physically real. And it is time to realize that mathematics cannot be one for Einstein, another for Steinmetz, another for someone else. So imaginary numbers are physically real in all sciences. Textbooks on different sciences (for example, physics textbooks and radio engineering textbooks) should not contradict each other. And it is unethical to teach schoolchildren and students using such textbooks.

There are other experimental proofs of the general scientific principle of the physical reality of imaginary numbers [33]-[44]. And no experiments are never refuted by postulates. And since the following from the postulate about not exceeding the speed of light SRT statement about physical unreality of imaginary numbers turned out to be incorrect, this postulate itself is incorrect. Therefore the generally accepted version of the SRT itself also turned out to be incorrect. There are

also other proofs of the incorrectness of the version of SRT [45]-[65] still studied in all physics textbooks.

3. Corrected version of SRT

Since the principle of the physical reality of imaginary numbers has been experimentally proven in the most indisputable way, the relativistic formulas must now be explained for the super- luminal speed range [66]-[73]. But for these relativistic formulas to be explainable, they must first be corrected. To their graphs in the superluminal speed range $V > C$ (Fig. 1a, b, c) were similar to the graphs of the same quantities in the sublight speed range $V < C$, as shown in Fig. 1d,e,f. And for this, it is necessary to introduce the factor i^q into formulas (1)-(3). After which they will take the form

$$m(q) = m_0 i^q / \sqrt{1 - (\frac{v}{c} - q)^2} \quad (4)$$

$$\Delta t(q) = \Delta t_0 i^q \sqrt{1 - (\frac{v}{c} - q)^2} \quad (5)$$

$$l(q) = l_0 i^q \sqrt{1 - (\frac{v}{c} - q)^2} \quad (6)$$

where $q(v)=\lfloor v/c \rfloor$ is the "floor" function of discrete mathematics of the argument v/c (its graph is

shown in Fig. 3a), which is the fourth spatial dimension;

$w(v)=v-qc$ is the local velocity for each universe (its graph is shown in Fig. 3b).

Therefore, the function i^q for successive values of q(v) equal to 0,1,2,3,4,5,... takes the values +1,+i,-1, -i,+1,+i,... And the value q(v)=0 in formulas (1)-(3) for the speed range $V < C$ corresponds to our visible universe, which for definiteness we will call the tardyon universe. The value q(v)=1 in the speed range $V > C$ corresponds to the invisible universe, since it is beyond the event horizon. For definiteness, we will call it tachyon. The value q(v)=2 will then correspond to an invisible tardyon antiuniverse, the value q(v)=3 will correspond to an invisible tachyon antiuniverse, the value q(v)=4 will correspond to another (and therefore also invisible) tardion universe, the value q(v)=5 will correspond to another tachyon universe. Etc.

Thus, from the corrected relativistic formulas (4)-(6) it follows that in reality in nature there exists a Multiverse, which contains, in addition to our visible universe, also many other mutually

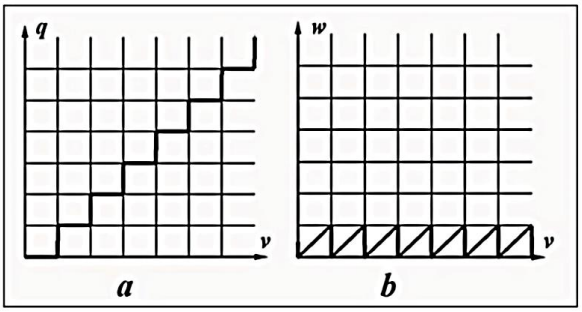

Fig. 3.

Graphs of functions $q(v)$ *and* $w(v)$*, illustrating the meaning of the "floor" function of discrete mathematics*

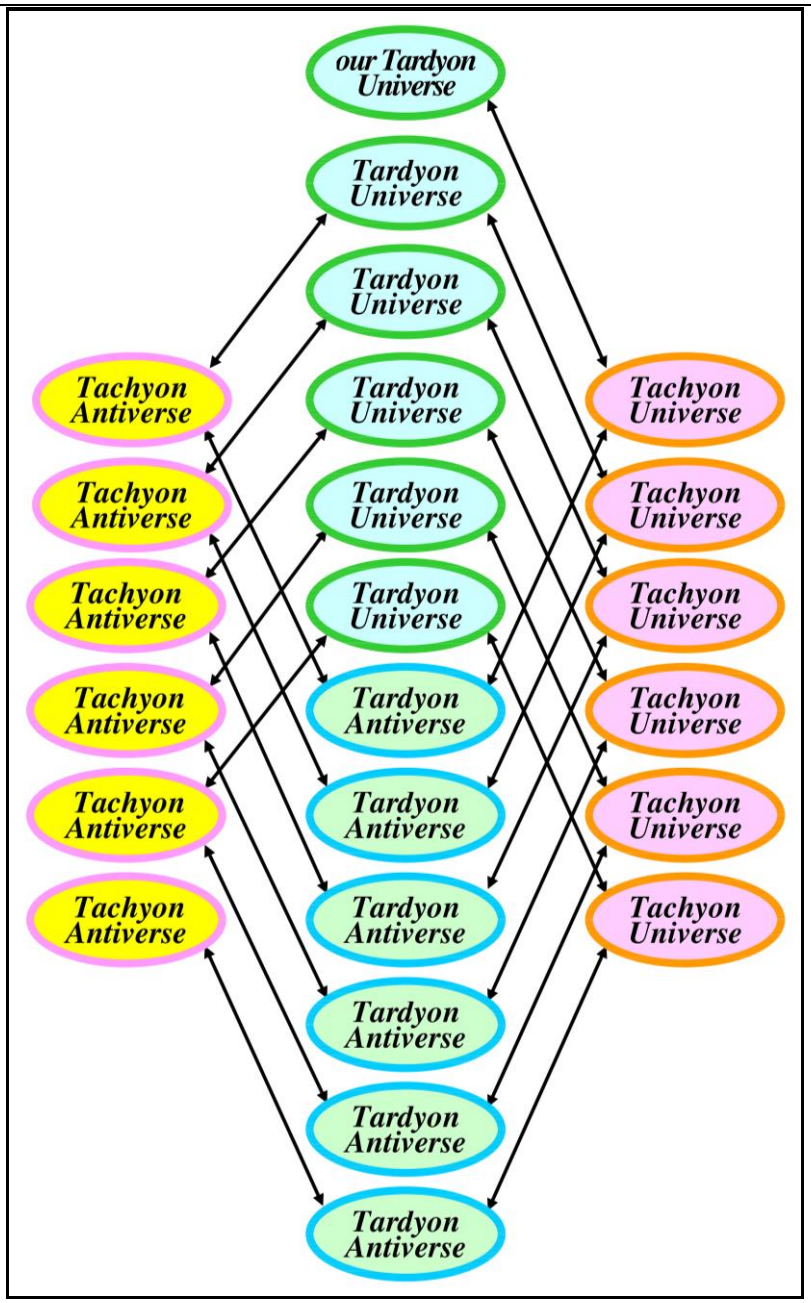

Fig. 4. Structure of the hidden Multiverse corresponding to the principle of physical reality of complex numbers

invisible parallel (since they do not intersect) universes[3], since relative to each other they are all located beyond the event horizon. And such a Multiverse, which we will therefore call hidden, has an openended screw structure (as, for example, in Fig. 4).

4. How to calculate the function i^q for non-integer argument values?

But the function which was very convenient and understandable in the presentation of the

previous section, is not currently used in the theory of functions of a complex variable. There-fore, it is useful to clarify this situation. The i^q function is not used because it is now known how to calculate it only for integer values of the argument - you just need to multiply by i the original value, equal to one, q times. But in the case of non-integer values of q, this algorithm does not work. That's all.

Nevertheless, this situation is completely solvable. After all, the values +1,+i,-1,-i, etc. are the same as the function i^q for integer argument values 0,1,2,3, etc. function $e^{iq\pi/2}$ also accepts in Euler's formula $e^{iq\pi/2} = cos\,(q\pi/2) + isin(q\pi/2)$, which allows you to calculate its values for non-integer values of the argument. Therefore, it is acceptable to assume that these two formulas i^q and $e^{iq\pi/2}$ rare identically equal to each other. And then we get the formula

$$i^q = cos\,(q\pi/2) + isin(q\pi/2) \quad (7)$$

[3] In other dimensions, therefore on Earth invisible

by which for the function i^q one can find its values for both integer and non-integer values of the argument ***q.***

Thus, the last mathematical operation from algebra, which until now was not feasible in the theory of functions of a complex variable, has now also become feasible.

5. Analysis of experimental data obtained by the WMAP and Planck spacecraft

In order to obtain more information about the possible structure of the hidden Multiverse and to verify that it is correct, we will analyze the data obtained by the WMAP [74] spacecraft, launched in 2001 by the National Aeronautics and Space Administration (NASA), which operated until 2010, and Planck [75], launched by the European Space Agency (ESA) in 2009, which operated until 2013.

According to the data obtained by the WMAP spacecraft, the entire universe (in fact, the entire hidden Multiverse) consists of 4.6% baryonic matter, 22.4% dark matter, and 73.0% dark energy. And according to more recent data obtained by the Planck spacecraft, the entire universe (again, in fact, the entire hidden Multiverse) consists of 4.9% baryonic matter, 26.8% dark matter, and 68.3% dark energy. As you can see, these results differ little from each other, which proves their truth. But what dark matter and dark energy themselves are has never been explained.

It is for this incomprehensibility that these physical entities were called dark. Therefore, Stephen William Hawking wrote: *"The missing link in cosmology is the nature of dark matter and dark energy."*

And since it was proven above in the most indisputable way that in nature there is not a monoverse, but a hidden Multiverse, then dark matter and dark energy must somehow be present in it [76]-[80]. Consequently, the structure of the hidden Multiverse discussed above, shown in Fig. 4, must be accordingly corrected.

But how? To do this, we will abandon the assertion of the version of STR presented in textbooks that explanations for the phenomena of dark matter and dark energy must certainly be sought in our visible Universe. And we will look for them in the hidden Multiverse, since its existence has been proven. Let us assume that these phenomena are somehow generated by the very structure of the hidden Multiverse and are caused by the mutual influence of invisible parallel universes on each other. And then it's possible it is quite clear and convincing to explain the hitherto inexplicable main features of these phenomena - their invisibility and undetectability of corpuscular contents:

• dark matter and dark energy are actually not some kind of material physical entities, but just phenomena (presumably a gravitational shadow) generated by the existence, in addition to our visible tardion universe, of other invisible ones parallel universes of the hidden Multiverse;

• moreover, dark matter is a phenomenon generated by the existence of invisible parallel universes of the hidden Multiverse adjacent to our visible universe;

• and dark energy is a phenomenon generated by the existence of the rest, in addition to our visible universe and the invisible universes adjacent to it, the remaining invisible parallel universes of the hidden Multiverse;

• and precisely because dark matter and dark energy are just phenomena, they have no material content, as a result of which they themselves are invisible.

Then it becomes obvious that some unusual material content in dark matter and in dark energy in nature probably does not actually exist. Just as there is no material content in our shadow on a sunny day. Therefore, attempts to detect some subatomic particles of dark matter and dark energy by the ongoing research at the Large Hadron Collider are probably not very promising.

This explanation of these phenomena also makes it possible to clarify the structure of the hidden Multiverse. Indeed, assuming the mass of different invisible parallel universes in the hidden Multiverse with a high degree of accuracy due to the presence between them of a large number of portals that have existed for billions of years is almost identical[4], it is possible to determine:

• how many parallel universes form the hidden Multiverse. And in accordance with the above data obtained by the WMAP spacecraft, their number is 100% / 4.6% = 21.74. And in accordance with the data obtained by the Planck spacecraft, their number is 100% / 4.9% = 20.41. Consequently, their real number is equal to 20...22 universes. Those in addition to our visible universe, there are also 19...21 invisible universes.

• how many parallel universes are neighboring our universe and give rise to the phenomenon of dark matter. According to data obtained by the WMAP spacecraft, their number is 22.4% / 4.6% = 4.87. And in accordance with the data,. received by the Planck spacecraft, their number is 26.8% / 4.9% = 5.47. Therefore, their real number is most likely equal to 5...6 parallel universes.

• how many parallel universes give rise to the phenomenon of dark energy. And in accordance with the data obtained by the WMAP spacecraft, their number is 73.0% / 4.6% = 15.87. And according to data obtained by the Planck spacecraft, their number is 68.3% / 4.9% = 13.94. Consequently, their real number is presumably equal to 14...16 parallel universes.

6. Corrected version of SRT (continued)

As can be seen, the experimental data obtained by the WMAP and Planck spacecraft did not confirm the above conclusions about the structure of the hidden Multiverse, since our visible universe in this structure should have not two neighboring invisible universes - more precisely, one tachyon universe and one tachyon antiuniverse - but five or six.

Therefore, it is logical to assume that there was some error in the previous reasoning. And this error is that earlier, for the sake of simplicity, we assumed in the hidden Multiverse[5] the existence of only one additional dimension q and, consequently, its correspondence to physically real complex numbers containing

[4] according to the law of communicating vessels

[5] Just like in the single visible universe in the generally accepted version of STR

only one imaginary unit. And in order for our universe to be neighbors of six other parallel universes[6] - three tachyon universes and three tachyon antiuniverses - it is necessary to have three additional dimensions q, r, s, which will determine their position in space. Consequently, the space of such a hidden Multiverse will be six-dimensional (see Fig. 5). And its structure will correspond to quaternions $\sigma+i_1\omega_1+i_2\omega_2+i_3\omega_3$, i.e. hypercomplex numbers [81], containing three imaginary units i_1, i_2, i_3, which are related to each other by the relations

$$i_1^2=i_2^2=i_3^2=-1 \quad (8)$$

$$i_1i_2i_3=i_2i_3i_1=i_3i_1i_2=-1 \quad (9)$$

$$i_1i_3i_2=i_2i_1i_3=i_3i_2i_1=1 \quad (10)$$

In such a quaternion structure of the hidden Multiverse [82], [83] the distribution of material content in each three-dimensional parallel universe will be determined by some the function $f_{q,r,s}(x,y,z)$ and the quantities i_1q, i_2r и i_3s and are the coordinates of these universes. Those. the structure of the hidden Multiverse is described by the formula $f_{q,r,s}(x,y,z)+i_1q+i_2r+i_3s$. This

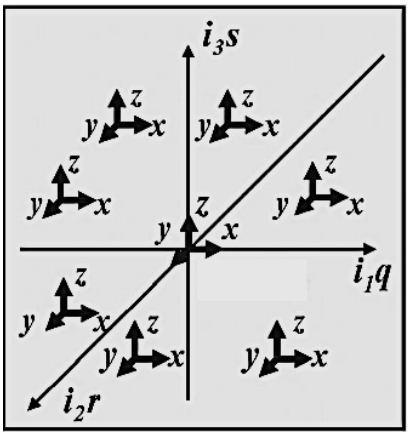

***Fig. 5**. Six-dimensional space of the hidden Multiverse, where q, r, s are the coordinates of invisible parallel universes, and x, y, z are the coordinates of the matter content in each parallel universe*

is exactly what Lisa Randall predicted: *"We could be living in a three-dimensional slit of higher dimensional space."*

And therefore the relativistic formulas (4)-(6) must be corrected once again as follows

$$m(q,r,s)=\frac{m_0i_1^qi_2^ri_3^s}{\sqrt{1-[v/c-(q+r+s)]^2}} \quad (11)$$

$$\Delta t(q,r,s)=\Delta t_0i_1^qi_2^ri_3^s\sqrt{1-[v/c-(q+r+s)]^2} \quad (12)$$

$$l(q,r,s)=l_0i_1^qi_2^ri_3^s\sqrt{1-[v/c-(q+r+s)]^2} \quad (13)$$

Information about the helical structure of such a hidden Multiverse is contained in formulas (11)-(13). It follows from them that it is possible to move from a tardion universe to a tardion antiuniverse and from a tardion antiuniverse to a tardion universe in different ways, but not in an arbitrary way, but only in such a way (see Fig. 6) that the quantity $i_1^q\ i_2^r\ i_3^s$ will successively take on the values +1,+ ⊕+ ⊕+ ,-1, - ⊕- ⊕- ,+1,… etc., where ⊕ is the symbol of the logical operation of discrete mathematics 'exclusive OR'. In this case, different trajectories of movement from one universe (or antiuniverse) to another can differ only due to the replacement of some tachyon universes $i_1^q\ i_2^r\ i_3^s$ with others and some tachyon antiuniverses $i_1^q\ i_2^r\ i_3^s$ with others. Consequently, the tachyon universes $i_1^q\ i_2^r\ i_3^s$ in the hidden Multiverse are located parallel to each other. The tachyon antiuniverses $i_1^q\ i_2^r\ i_3^s$ for the same reasons are also located parallel to each other. And therefore, in the hidden Multiverse, when moving from any tardyon universe to a tardyon antiuniverse and then to another tardyon universe, parallel universes and anti-universes must alternate in the following sequence – 'tardyon universe', 'one of the tachyon universes', 'tardyon anti-universe', 'one of the tachyon anti-universes', 'tardyon universe', 'one of the tachyon universes', etc.

The simplest such quaternion structure of the hidden Multiverse to explain is shown in Fig. 6. However, it is possible that more complex structures exist in nature, formed by the interweaving of many (perhaps even infinitely many) sequences of tardion and tachyon universes and antiuniverses

[6] Or less. Then some parallel universes of our hidden Multiverse may be absent and replaced by universes of neighboring Multiverses.

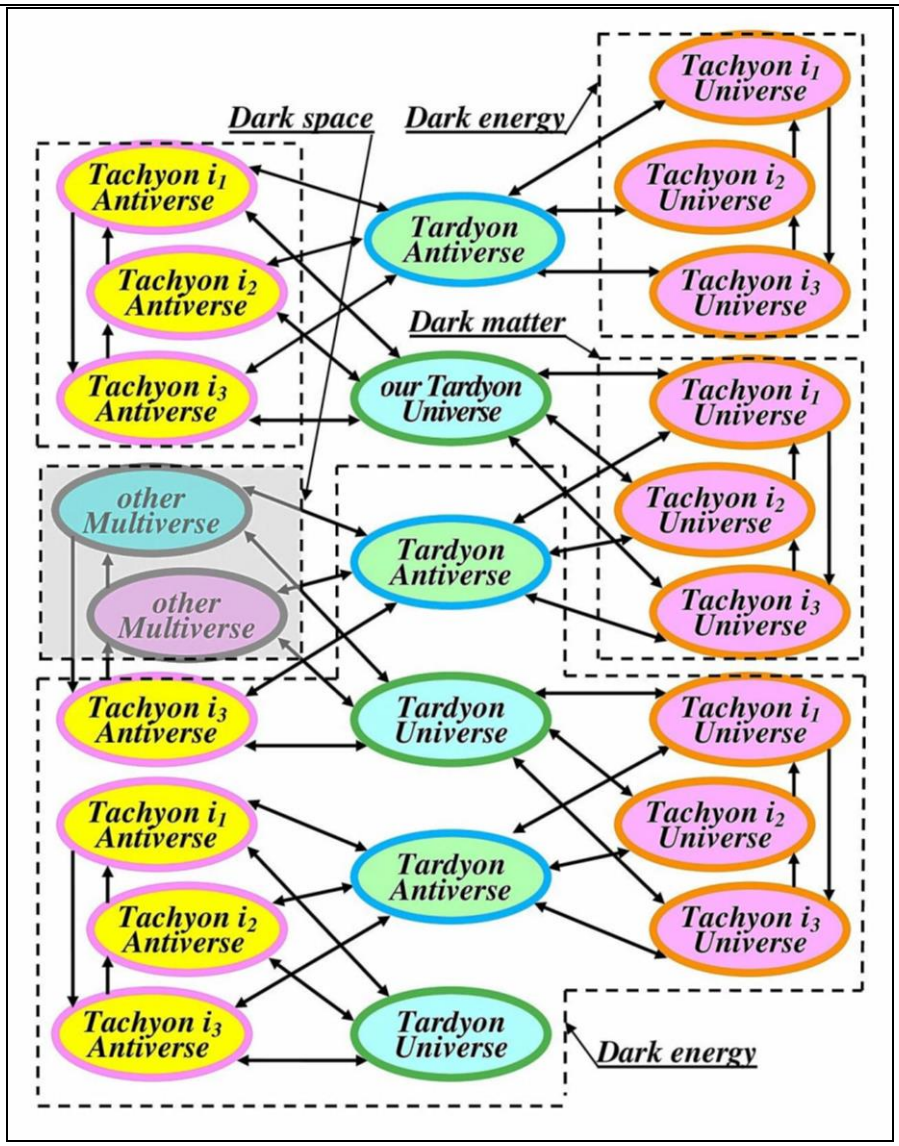

Fig. 6. Possible quaternion structure of the hidden Multiverse containing twenty-two parallel universes, including six invisible universes adjacent to our visible universe

in the hidden Multiverse and located beyond it in the Hyperverse. But we will not consider them, since we do not have any experimentally obtained knowledge for this, and one can assume a great many such hypothetically possible structures.

The difference between the structure shown in Fig. 6 structure from the structure shown in Fig. 4 is the presence in it of several different tachyon universes and antiuniverses corresponding to three imaginary units $i_1^q\ i_2^r\ i_3^s$. Another difference is the presence in such a structure of the Multiverse of not only bidirectional portals corresponding to formula (8) and designated by double-sided arrows, but also unidirectional portals[7], corresponding to formulas (9), (10) and designated by single-sided arrows.

Moreover, naturally, the movement from our tardyon universe to the tardyon antiuniverse through some tachyon universe – for example $\boldsymbol{i}_1$ – does not necessarily have to proceed further through the tachyon antiuniverse $\boldsymbol{i}_1$. It can proceed further through the tachyon antiuniverses $\boldsymbol{i}_2$ and $\boldsymbol{i}_3$. The same reservation applies to the situation if the movement from the tardyon universe to the tardyon antiuniverse begins through the tachyon universes $\boldsymbol{i}_2$ or $\boldsymbol{i}_3$.

In Fig. 6 all these transitions are shown. Moreover, since the data obtained by the WMAP and Planck spacecraft correspond to the open spring-like structures of our hidden Multiverse, united through the corresponding portals with other Multiverses, then all together they form the Hyperverse.

[7] Due to what circumstances in such portals movement is possible only in one direction - from entrance to exit - it is difficult for us, living in a space in which movement in nature is possible in any direction, even to imagine. And the processes that make such movement possible in nature are yet to be understood. But they are more dangerous for visitors who have fallen into such unidirectional portals than bidirectional portals, because it is impossible to return to one's own universe from them. And while there is one-way travel on escalators in the subway, the subway is not nature,

And there may be many other similar structures. And to clarify which of them really exists in our hidden Multiverse, additional experimental research is naturally necessary.

7. Physical reality of invisible universes

But this is not the main thing for us now.

The main thing is to prove experimentally, in an indisputable way, that there is a Multiverse in nature, and not the only visible universe in nature, as it is asserted not only in the generally recognized version of SRT, but also in string theory and in quantum physics.

And for this purpose, without wasting time on analyzing complex theories, it is necessary to prove experimentally that invisible universes corresponding to the corrected version of SRT, actually exist in nature. And it is possible to do it, if to see on a starry sky corresponding to

them other constellations [84]-[89]. But that can only be done where no one has ever seen them before. And these other constellations[8] (invisible outside the portals) can be seen in the starry sky in the portals, i.e. in the transitions between our visible universe and neighboring invisible universes. Similarly, as it is possible to see neighboring with our visible room, in which we are now, neighboring invisible room (or at least its edge to be convinced of its existence), only if you go into the cокridor between the rooms. Portal are such corridor between universes.

And for this purpose, without wasting time on the analysis of these complex theories, let us try to prove experimentally that invisible universes corresponding to the corrected version of SRT, actually exist in nature. Then theoretical considerations on this subject will become unnecessary. And it can be done, if to see on a starry sky corresponding to other universes other constellations. But this can only be done where no one has ever seen them before. And these other constellations (invisible outside the portals) can be seen in the starry sky in the portals, i.e. in the transitions between our visible universe and neighboring invisible universes. Similarly, as it is possible to see neighboring to our visible room, in which we are now, the neighboring invisible room (or at least its edge to make sure of its existence), only if you go into the corridor between these rooms. Such corridors between universes are portals [90]-[92]. And the entrances to the portals are the so-called anomalous zones, of which there are many on our planet - more than a hundred thousand [93]-[96]. And in some of these anomalous zones even already placed observatories. As, for example, the Main Astronomical Observatory of the National Academy of Sciences of Ukraine, which is located in the Goloseevsky forest just 12 km. from the center of the capital of Ukraine, Kiev.

But people avoid going into portals. And rightly so, because portals are invisible labyrinths. That's why it's almost impossible to get out of them after accidentally entering them. But it is possible to create equipment for orientation in portals. It is also possible to use unmanned remote-controlled robotic means to explore portals. You just need to want to do all this.

It is even possible not to go far into the portals, but to limit ourselves to the use of anomalous zones (e.g., the above-mentioned Main Astronomical Observatory of the National Academy of

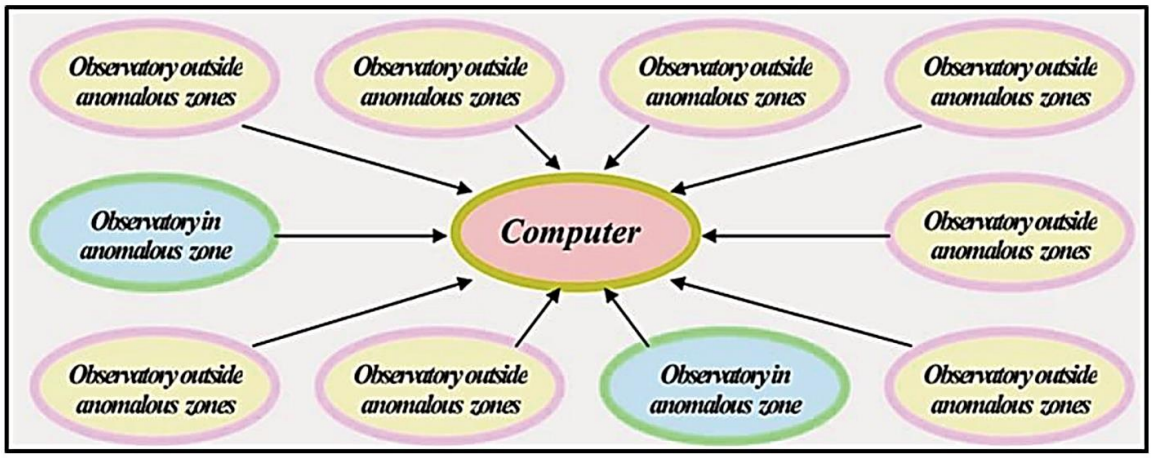

Fig. 7. *Scheme of an astronomical experiment to detect invisible universes*

Sciences of Ukraine). Although in anomalous zones, i.e., at the very edge of the portals, the change in the appearance of familiar constellations is very small, they can still be detected with modern equipment, comparing on the computer (Fig. 6) observations of the same areas of the starry sky by different observatories located both in the anomalous zones and outside the anomalous zones in the same region.

After all, the English astrophysicist Sir Arthur Stanley Eddington [97] was able to his famous experiment, similar to the one described above in Fig. 7, back in 1919 to confirm the predicted by the general theory of relativity deviation of light rays in the gravitational field of the Sun. That's what it means to actually want to.

8. Why hasn't this experiment been done yet?

So why hasn't this simple and very low-cost experiment has not yet been done? Even though in case of a

[8] During the transition from one universe to another, the map of the starry sky in the portal, continuously changing all the time, smoothly transforms from the map of one universe into the map of the neighboring universe. But at the same time it will naturally differ from the map of the starry sky on the Earth outside the portal at any place in the portal

positive result one could hope for a Nobel Prize for the discovery of invisible universes neighboring our visible universe. And in the case of a negative result, one could hope to get a very authoritative proof that Einstein and his theory were right. That is, any result of such an experiment is very important for science.

And because the first result astronomers actually do not need, so as not tcomplicate their relations with the community of relativistic physicists. And it is more important for them than even the Nobel Prize. And the second result, as they themselves realize, is very unlikely. But after realization of such experiment all scientific disputes about whether the version of SRT studied in physics textbooks is correct or incorrect, and also any references to string theory, to quantum physics and to nothing else will not be taken into account any more, as on this question will be received indisputably correct answer. And this answer is most likely to prove unambiguously the infidelity of the generally recognized version of SRT.

9. Civilizations and supercivilizations

But even if there were only our visible universe, then, despite the big bang theory, when exploring the cosmos it is impossible not to take into account that different stars with their planets arose in our visible universe at different times. And they still continue to arise. According to modern estimates, the number of galaxies in our visible universe alone is about 2E11. And each galaxy contains about 1E8 stars. Of these, at least 8E9 contain Earth-like planets on which life is possible. And the ages of the stars are very different. For example, the star HE1523-0901 is 13.2E9 years old, the Sun is 4.6E9 years old, Sirius is 2.3E8, and the recently discovered star SwiftJ1818.0-1607 is only about 240 years old. For comparison, recall that the age of our visible universe is about 13.8E9 years. In the invisible universes of the hidden Multiverse and Gi-universe this diversity is surely even greater. And even the invisible universes themselves, contrary to the Big Bang theory, probably did not appear in nature at the same time. Consequently, at least on some planets, the age of the supercivilizations existing there exceeds the age of our earthly human civilization by billions of years. And comparing our civilization of the XXI century with the human civilization, for example, of the IXX century, i.e. existing only 200 years ago[9], it is not difficult to understand how much our civilization is surpassed by super-civilizations.

Therefore, the inhabitants of supercivilizations are real all-powerful Gods for us. And some information about these supercivilizations is contained (though in a in allegorical form to be somehow understandable to people) in the church books of all world religions.

But other civilizations also exist on Earth. These are numerous communities of living be-ings - mammals, birds, dolphins, even ants and bees - which form hierarchical structures united by common vital interests and coordinate their activities for the benefit of the whole community as a result of exchange by information between these living beings. Only these civilizations, unlike human civilization, are not machine civilizations. Although primitive human civilizations, still existing now according to some reports in some remote areas of the Earth, are not machine civi-lizations either.

And these non-machine civilizations are also of great interest for people, because due to the fact that other living beings have sensory organs different from those of humans, they possess knowledge about nature unknown to humans. For example, cats feel geopathogenic zones, which are not registered by any existing equipment. Consequently, there are some other physical fields unknown to people in the nature, besides electromagnetic and gravitational fields known to people. Cats can also cure people in some unknown way. But people don't know how they do it. And how to learn it from them.

10. Fermi paradox, which proves the existence of supercivilizations in other spatial dimensions.

The Fermi paradox is a statement of a seemingly paradoxical situation in which, on the one hand, it is known that there are many star systems suitable for life in the cosmos, and on the other hand, despite all the efforts of scientists, no signs of life have been found in this cosmos. And it would seem very strange [98]-[100].

But in fact there is nothing strange about this. After all, what are we looking for? What signs of life do we expect to see? The same as on Earth now? So that the same radio stations as on Earth would work, which, when transmitting signals, would spend most of their energy on transmitting signals to nowhere due to the use of a non-optimal directional diagram? So that, in addition, these radio stations would also spend a considerable part of their energy on out-of-band radiation? So that aliens would detonate atomic and hydrogen bombs? And so on.

But first of all, these are all defects of our imperfect civilization, which supercivilizations have long ago got rid of. And that's why they're invisible. And secondly, why not assume that we do not see their ships in space also because they have different logistics as a result of using their super knowledge. Even on Earth, people on their way to work in big cities often use the subway. And then their movement underground cannot be detected from space. But then it is necessary to recognize the existence of invisible parallel universes, portals between them and admit that the generally accepted version of SRT is wrong.

Besides, they certainly know stealth technology or some other super stealth technology. So the cost of all the searches for signs of life in space is money wasted.

And finally, why do we assume that as soon as people want to establish contacts with the inhabitants of supercivilizations, for example, on the Moon or on Mars, their inhabitants will immediately want to contact us? Always and everywhere to be or not to be contacts are decided by the masters of the situation. To be sure of it try to meet your director or minister at least. That is why in this situation the inhabitants of supercivilizations make decisions, not us. After all, we also do

[9] When A. S. Pushkin and M. Yu. Lermontov lived and wrote, there were no computers, no Internet, no cars, no rail transport, no aviation, and many other things that have become familiar to us in the 21st century.

not seek contact neither with wild animals, nor with insects, nor with snakes that try to get into our dwellings. For example, rats are very smart and even in some situations, out of gratitude for the fact that the miners fed them, they sometimes saved their lives. Nevertheless, no one keeps rats as pets. And we lock our houses even from people we don't need.

And the inhabitants of supercivilizations are perfectly capable of protecting themselves to protect themselves from unnecessary human contact, even on Earth. For example, presumably in Shambhala. Or Antarctica. Or at the bottom of the oceans.

And another thing. Why do we seek contact with supercivilizations? We won't understand anything. After all, they have been sending us messages in the form of crop circles for centuries. But we don't have enough intelligence to read them. So we should not try to solve problems that are beyond human intellect. We need to increase our intelligence. And first we have to read the crop circles in the margins. And what to do next will be clear late

11. The phenomenon of déjà vu, which proves the existence of super civilizations in other time dimensions

This is an extremely interesting phenomenon [101]. Déjà vu from French translates as "already seen". There have even been 84 films made on this topic at different times and in different countries.. The essence of the phenomenon is that practically every person (more precisely, about 97% of people) sooner or later, at least once in his life, found himself in a situation in which he had already been once before. Or so it seems to him. Psychologists have offered many medical explanations for this phenomenon. But all of them are not very convincing, since science does not know of any disease, much less a mental one, with which 97% of the world's population could have been infected (and how?).

So let's offer another explanation, but this time a physical one. It is also quite unusual. Let's assume that this phenomenon is explained by interference in our life by our descendants from the distant future, who have unusually perfect computers capable of calculating our behavior down to the smallest detail, as well as time machines, with the help of which our descendants can move both to the past and future time. Which is plausible. And then these descendants of ours, in order to correct their existence in their future, go by time machines (and for them it is easier and cheaper than other variants of obtaining the same result) to our past and correct this past by algorithms created by supercomputers of the future (for example, Hitler's mother is married to another man). Then the inhabitants of the future, naturally, get to another future, which they like better. And in order not to lose any of their relatives, who have many other relatives and friends, etc., they have to interfere in the lives of all the people currently living on Earth. That is why the above-mentioned figure of 97% appeared.

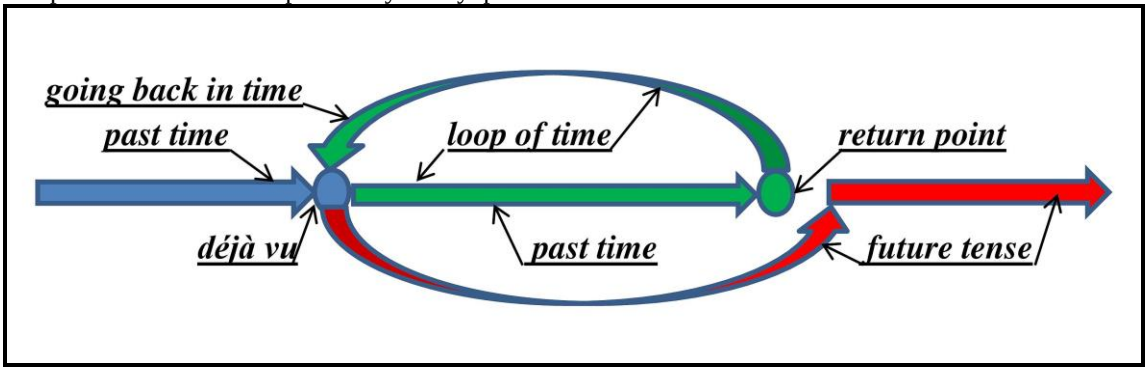

Fig. 8. *Explanation of the phenomenon of déjà vu occurring as a result of intersection of timelines "going back in time" and "past time" with the formation of a "loop of time"*

And people of our time on Earth because of this interference in our lives of aliens from the future make a journey through a time loop (see Fig. 8). Which they then forget. Or our descendants from the distant future erase it from our memory. But because of the existence of the time loop, they have to actually visit the 'déjà vu' point twice. And this is not erasable from their memory.

12. The invisible afterlife world, where the Gods and souls of the dead dwell, really exists

But religions, unlike many modern scientific hypotheses that have not been confirmed ex-perimentally, which for some reason in the twentieth century unreasonably began to be called theories, do not try to deceive people. At least because all world religions, without collusion, actually tell people about the same thing.

That there are Gods. Well, it's true. It was explained above that the Gods are all-powerful inhabitants of super-civilizations in star systems that appeared billions of years before our solar system. And who help humans to become more civilized and advanced. Gods also through Religions somehow allegorically (and otherwise people would not understand anything and this information was not preserved to the next generations) explain to us the structure of the world in which they and we actually live. Church books are therefore invaluable teaching aids for us to learn the science of the distant future. They also try to instill in us a more humane morality of these super-civilizations (e.g., in the form of Christ's commandments), in contrast to the far from perfect morality that people live by today. And largely due to the efforts of Religions, people are becoming more and more humane.

But Gods and the souls of the dead also have to be somewhere. The invisible world in which they dwell in religions is called beyond the grave. And as it is shown above in the hidden Multiverse and Giperuniverse there

are many (perhaps even infinitely many) mutually invisible parallel universes in which there are inevitably super-civilizations. Which therefore may be this invisible afterlife world.

Religions also tell us that people have an immortal soul that passes into this afterlife world after death. There are many testimonies of this from people who have been in a state of clinical death. And the author believes that this is also true. Therefore, the author is happy that after his death he will be able to reunite with his beloved parents, his wife and his wife's parents.

But in the version of STR, studied in physics textbooks, the existence of an invisible afterlife is denied for quite understandable reasons. It and its inhabitants - Gods, souls of the dead and others - simply have no place in this, the only one existing in nature according to the generally accepted version of STR, our visible Universe.

13. Conclusion

Thus, in the article it is experimentally proved and theoretically explained that up to now studied in all textbooks of physics the version of SRT, created in the XX century, is incorrect, because:

- the relativistic formulas obtained in it are incorrect;
- these formulas are incorrectly explained using the incorrect postulate called the principle of non-exceeding of the speed of light;
- from these formulas wrong conclusions about physical unreality of imaginary numbers and about existence in the nature of our only visible universe in which everything is measured only by real numbers are made.

But in the XXI century, a corrected version of the STR was created, in which, instead of the incorrect postulate about not exceeding the speed of light, an experimentally proven principle of the physical reality of imaginary numbers is used. And the physical reality of such numbers is proven by the existence of not only electrical engineering, radio engineering and computer technology (which was written about above), but also by the existence of the natural phenomenon of tsunamis and even swings swinging on playgrounds, as well as music created by pianos and other musical instruments. What more convincing refutations are needed? After all, these refutations have not been refuted by anyone.

Thus, naturally, the postulate of the generally accepted version of STR about not exceeding the speed of light, from which this conclusion about the physical unreality of imaginary numbers was made, is also experimentally refuted. For the same reasons, the conclusion about the existence in nature of our only visible universe is also refuted. And instead, it is asserted that in fact, in addition to our visible universe, there are many other mutually invisible parallel universes. The corrected version of STR also explains that the existence of these invisible universes can be experimentally proven by astronomical observations in the starry sky in the portals of constellations that are invisible outside the portals.

But the significance for science of the principle of physical reality of imaginary numbers is not limited to the possibility of correcting the generally recognized version of SRT. From this principle follows the necessity of corresponding correction in exact sciences of all theories and hypotheses in which imaginary numbers are used.

It also follows from this principle that around us there exists not only the visible world known and clear to us, but also a much larger almost completely unknown and not yet completely cognized by us invisible world [102]-[111]. Including the invisible afterlife world [112]-[123], where Gods, souls of the dead and numerous other inhabitants of supercivilizations dwell.

The author hopes that the realization of all this will encourage Science and Religion to cooperate mutually beneficially in their activities for the benefit of people.

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