

The Physical Theories And Laws Of A Nature

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Are the equations of Newton either the theory or the laws? Laws of Coulomb? Maxwell, Einstein, Derrick, Schroedinger, quantum theories? The correct answer to the put questions is necessary. The estimation of a modern condition of theoretical physics depends on the answer to it. The author does not undertake to answer all put questions. But the answer is clear for Newton, Coulomb: the equations of gravitation and inertia, equation Coulomb are not the theories. They are the laws of a Nature. In general as to The Nature it is not necessary to coincide with the theory . It has small set of the laws. The theories are necessary to mankind for the development of industrial technologies. Very dangerously for the theories to make almost any scientific conclusions. They can put a science to the dead end. The forecasts from the theories, even though they were very inspiring, may lead from understanding of physical essence of a Nature. This remark is to the full concern of the theories Maxwell, Einstein, to many sections to theoretical physics. Let's show it on a vivid example of a problem of inertia and gravitation.

Let's open a course of physics. Let's write out constant gravitation $G=6.67 \times 10^{-11}$. Here and further everywhere in terms of system SI. Let's open sections on an electricity and magnetism. Let's write out dielectric and magnetic permeability's for physical vacuum (PV=ZPF). Let's put these values upside down (paradox of physics!). $Q=8.98755150914 \times 10^9$ - we shall name of a constant electricity. $M=1.00000031115 \times 10^7$ - we shall name of constant magnetism. We have received three global PV constants for our Universe. They will form the main metrics of space of the Universe. There are 7 similar constants, but all of them are derivative from globals. It is speed of light in PV. It is equal to a root square of product Q on G. Set to self a question - on what basis in modern physics of speed of light plays the key role? And main G, Q and M are ignored? There is an even more important derivative constant, than speed of light. It of R. R is equal to a root square of the relation G to Q, i.e. $R=8.614741 \times 10^{-11}$ [q kg⁻¹]. In modern physics the root square «from the metrics of space» is very much popular! R is researched. It establishes connection an electrical gravitational charge with of any object having weight, i.e. $q=Rm$. For the Earth $q=5.1516 \times 10^{14}$ coulomb. The Earth, rotating this electrical gravitational charge, will form a constant component of magnetic field on an axis of rotation. The account gives 38 A/m. The actual intensity of a magnetic field on a magnetic pole of northern hemisphere is equal 50 A/m. Ideal coincidence! Taking into account, that northern magnetic pole is in the South, by a well known rule the charge of the Earth is negative. In common physics it is known, that any electrical charge moving with acceleration, raises around itself an additional electrical field. Its size is proportional to acceleration. Its polarity is those, that the force action of an additional field on the accelerated charge is directed against acceleration. Now The secret of inertia is not existing!

The secret of gravitation requires more detailed research. PV is dielectric. It differs from a conductor by that it has no free carriers of an electricity. Its structure includes the tied charges. Under action of external fields the tied charges are capable to polarization. It is known, that PV is environment of virtual pairs electron - positron. These pairs arise from PV on quantum of time. Vigorous photon can «to beat out» from PV real pairs electron and positron Let's assume, that the elementary tied charge is formed by virtual pair electron - positron. They will form a so steady pair, as well as nucleus of atom of hydrogen. This pair almost in 1000 times is easier than atom of hydrogen. The negative tied charge whence undertakes? Probably, because the very small superiority of a electron charge above a positron charge. At least electron charge should surpass a positron charge on 7.8465×10^{-41} coulomb or $1/2.04 \times 10^{21}$ parts of a complete charge. These sizes give us some notions about what there is a talk. The substance, as well as PV, has the gravitational tied electrical charges. It at the end too is formed by pairs electron - positron. For example, the neutron is broken on electron and proton. Last on positron and neutral elementary particles. By the way, the presence of the tied electrical charge of a neutron explains its magnetic moment. The theoretical physics has no the answer to

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this problem. So, any body and PV have qualitatively identical gravitational electrical charges. It explains the phenomenon of gravitation. It can be understood from the circuit of polarization of the tied charges:

body1 (-, +) attraction (-, +, - PV -, +, -) attraction (+, -) body2.

The existence of a negative charge PV provides an coulomb attraction of two bodies in structure itself PV. The secret of inertia and gravitation is no more existing!

Stated has continuation. PV without substance, being charged environment, tests coulomb pushing away - antigravitation (negative pressure). It explains expansion of the Universe. PV with substance (galaxy, the group of galaxies etc.) tests gravitation (positive pressure). It can explain restricted of expansion at enough quantity of substance.

Let's take one more derivative constant PV. It is equal to product electrical and magnetic constant, divided on gravitational constant. Let's designate $K=1.3475 \cdot 10^{27}$. It is equal to the complete moment of inertia one cubic meter of PV. This size is meaningful in Schwarzschild radius of a black hole. Radius is equal to double weight of a black hole, divided on K! In area of a black hole the polarization PV amplifies. A consequence of polarization is the growth of factor of refraction of light in general near to any weights and, in particular, near to a black hole. On border of horizon of events light does not fall outside the limits a black hole, and in vicinity of border the greatest possible polarization with greatest possible density of polarization of the tied charges will be formed. This is expressed by number $1.3856 \cdot 10^{16}$ coulomb on m^3 , divided on a square of radius of a black hole. If radius of a seen part of the universe is equal $\sim 10^{26}$ m (are visible quazars), the complete gravitational electrical charge will make $5.8040 \cdot 10^{42}$ coulomb with the sign "-". By virtue of the law of preservation of an electrical charge this size is constant from the moment of birth and to death of our Universe. Informed Scientist knows the price of a magic degree «42». For example, relation of electrical force to force gravitational equally $4.1687 \cdot 10^{42}$! The account of a complete charge of our Universe appears in the necessary frameworks. It indirectly proves this concept of inertia and gravitation. The problem «global» of a dimensionless constant «alpha», which is equal $7.29719 \cdot 10^{-3}$. If it to represent in normal PV global constants (by replacing them speed of light), it appears, through «alpha» it is possible to define magnetic mass electron, positron and proton (magnetic monopole!). It is equal $\pm 4.8029 \cdot 10^{-18}$ [Ohm q].

So, it is possible to mark:

1. The secret of gravitation and inertia is not present now even in frameworks "of classical physics".
2. Our Universe is some kind of a black hole for others next located because it is limited to an PV boundarouse, outside of which there are no interactions at all. It is closed.
3. Without PV, having a negative gravitational electrical charge, the existence of our Universe is impossible.
4. Thus this explanation of gravitation and the inertia is not present necessity to address to curvature of space - time, to space with 11-dementions, of «problems» of theoretical physics, including supergravitation, supersymmetry and even any of the quantum theories.

The example shows the real price of the normal laws of a Nature and theories. These concepts should be divided. If there is a desire to learn the laws of a Nature - address to them. If someone wants to receive technology - be engaged in the theories. Both problems of a science are important and are necessary. The pure theory conducts to the dead end.

Reference

Rykov A.V. Model of Interactions Reunion in Nature // M.:UIPE RAS, 1998, 48 p. (in russian)