

# The main functions of "dark" energy and a matter

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Astrophysics have found out, that "dark" energy and a matter makes in the Universe more than 96 % of all Universe. Discovery of structure of vacuum as bases of the Universe conterminous with concepts "dark" notions, is following important step in understanding of the functioning the Nature. It appears that the structure of vacuum has all features of electromagnetism on terminology of the general physics. The electric component of vacuum is presented by its crystal lattice with charges in size **1,602176462e-19 qoulons**, being in units of a lattice with step in **1,3987631e-15 m**. with alternating signs **(-)** and **(+)**. Between charges there are quantum's of a stream of magnetic induction  **$\Phi=4,8032042e-18$  Weber**.

Charges and streams of a magnetic induction are connected among themselves under laws Кулона. Besides the quantum of a stream of a magnetic induction is according to "quantum" of a stream of a magnetic induction Quper pairs электронов at superconductivity

$$\Phi = \Phi_q / \alpha^{-1} \pi = 4,8032042 \cdot 10^{-18} \text{ Weber.}$$

Parameters of structure of vacuum simply are found from the known fact of formation electron and a positron at energy **1, 022 MeV**. Parameters of structure of vacuum are not any imagination, and are based on firm established facts in the physicist. The structure of vacuum having a step in **37832** less of radius of atom of hydrogen, dictates following understanding of existence of mass of micro particles. Micro particles with different sign electric charges are obliged to be in units of a crystal lattice of vacuum according to signs on their charges. Electrons, negative muons, antiprotons are only "under" charges **(-)**, positrons, positive muons, protons "under" charges **(+)**. Than "negative" masses can differ from "positive" masses still not clear. Most likely, distinction of masses can be in

ways of their formation from parts of quantum of a stream of a magnetic induction  $m_i = \sqrt{\frac{\eta}{G}} \Delta_i \Phi$ . In

such conditions movement of all particles can only on units of the charges, making spiral trajectories in structure of vacuum with length of wave **De Broglie**. And how to be with neutral particles? An example of a neutron: the neutron has two masses - mass of a proton (settles down "under" a charge **(+)** and mass of an electron, settles down "under" a sign **(-)**). Non-uniform "dumbbell" in which its shoulders move only on the charges that causes instability of a neutron is formed. It has limited time of a life. Such structure of a neutron allows explaining forces **of gluons**, increasing forces at a stretching of a neutron like rubber or a spring.

Thus, our habitual representations about electric currents as result of movement of the charged particles mismatch the validity. Only the masses, capable to be at cell of structure of vacuum according to the nature of masses actually move. In colanders' only their masses collide, easily overcoming cells of charges of a lattice of vacuum. All the magnetic phenomena, known to us, occur only by means of quantum of streams of a magnetic induction of structure of vacuum. All this breaks our habitual representations about the phenomena of electromagnetism in a science and in practice, allocating a leading role to structure of vacuum which provides all the known phenomena of electromagnetism and work of all electromagnetic machines in a life of our civilization. The side or border between material habitual our world and the nature of vacuum is erased.

Let's emphasize, that opened "dark" energy and matters so exactly give to us the image that prove essence validity of the positions stated here in understanding of physics.

At entering into structure of vacuum of energy is more then **1,022 MeV** there are two variants of consequences. The first variant consists in formation through a stream of a magnetic induction of material the masses. It is the most productive and safe from the point of view of influence on vacuum. The second variant consists in a stretching of electric structure of vacuum up to limiting size **1,020726744e-17 m**. In the latter case there is a destruction light abilities of vacuum and transfer of forces of gravitation to the unknown consequences similar with «border of events» in black holes.

Therefore, the nature goes on more favorable way of formation of masses of substance, formation of stars, planets and other objects of the Universe. The structure of vacuum is a source of gravitation of material masses  $F = G \frac{m_1 m_2}{R^2} = \xi (4\pi R)^2 \sigma_{12} \sigma_{21}$  where  $\sigma_{ik} = \sqrt{\frac{G}{\xi}} \frac{m_i}{4\pi R_k^2}$  there is a polarization of structure of vacuum in the centers of masses and a source of expansion of the Universe, possessing "dark" energy.

#### The literature

A.V.Rykov Vacuum and substance of the Universe // publishing house " Restart ", 2007, 160