Electrical Asymmetry of the Universe

Professor Vladimir Leonov

Our universe is characterized by electromagnetic symmetry and electrical asymmetries. These new problems of symmetry and asymmetry of quantized space-time were raised for the first time in the theory of Superunification [1, 2]. We needed to understand how substance and its mass are born from quantized space-time. This applies to both elementary particles and cosmological objects (planets, stars, galaxies, black holes), as well as the state of the universe itself. We need to describe the parameters of elementary particles and cosmological objects in the language of mathematics from the standpoint of quantum theory. This is possible only after unification the general theory of relativity (GR) and the quantum theory that was made in the theory of Superunification. In this case, all events unfold in a single field in the form of quantized space-time and players in the role of which are the electrical charges-quarks. The field of quantized space-time is characterized by electromagnetic symmetry, and the players in this field are due to the appearance of the electrical asymmetry of the Universe.

Keywords: quantized space-time, electromagnetic symmetry, electrical asymmetry, Universe, theory of Superunification.

Quantized space-time, filled only with quantons, is a medium with no substance and without the entire variety of the observed world. Excess electrical charges must exist to fill the universe with material matter (substance).

The quanton itself ensures the electromagnetic symmetry of the quantized space-time by the fact that the number of magnetic charges inside a quanton is balanced with the number of the electrical charges. To ensure the electrical asymmetry of space, an excess of electrical charges must be supplied to the quantized space-time. It may be assumed that quantization of the universe was accompanied by the colossal ejection of pairs of electrical (±e) and magnetic (±g) quarks. The ejection of the number n_e of pairs of electrical quarks (±e) in the quantitative aspect was slightly greater than the ejection of the number n_g of pairs of magnetic quarks (±g) and this determines the electrical asymmetry A_e of the universe:

$$\frac{n_e}{n_g} = A_e > 1 \qquad (1)$$

` Presumably, A_e (1) differs only slightly from unity but the electrical symmetry A_e of the universe was then used as a basis for the formation of the entire variety of material matter (substance), starting with the formation of elementary particles [1].

Possibly, quantization of the universe took place at $A_e = 1$, without the excess of electrical charges, forming the spherical volume. However, the excess of the electrical charges was packed with displacement from the centre of the future universe in a very small volume expressed in cubic meters. For some reasons, the small volume was activated and this was followed by a big bang which resulted in

the ejection of excess electrical charges into the quantized space-time. A cavity with some spatial asymmetry formed in the centre of the universe and the universe started to expand, forming the quantized shell. The scenario explains the enormously high rates of expansion of the universe, without considering the inflation model. In the post-explosion stage, we can use the Friedman shell model of the pulsating universe.

The redistribution of the quantum density inside the asymmetric shell of the universe resulted in the formation of gigantic vortices in the quantized space-time, which explain the formation of helical galaxies. Spherical constellations formed in the absence of these vortices.

However, not all started with the formation of constellations and galaxies, the formation of elementary particles was also important. In particular, the excess of electrical charges – quarks of the monopole types resulted in the formation of the entire spectrum of the elementary particles. For example, the ejection into the quantized space-time of an electrical massless charge with negative polarity resulted in the generation of an electron as a result of spherical deformation of space-time because of the pulling of the quantons to the centre of the charge. The massless monopole charge acquires mass, transforms into the electron – elementary particle – the carrier of mass and charge. The structure of elementary particles and the quantized space-time was examined in detail in [1].

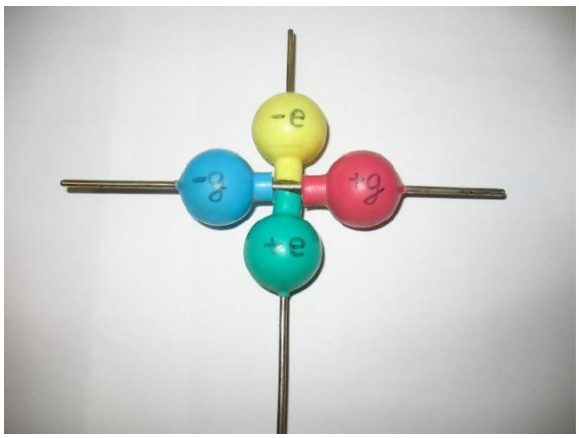

Fig. 1. The projection of the electromagnetic quadrupole (quanton) on the plane.

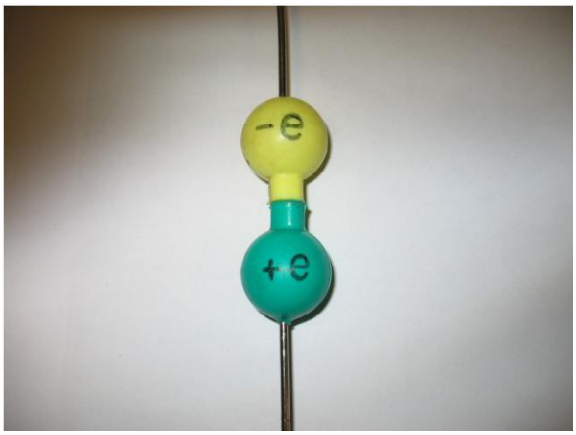

Fig. 2. An electrical dipole (scheme).

I made some simple models to visualize electromagnetic symmetry and electrical asymmetry. Fig. 1 shows an electromagnetic quadrupole (quanton) in projection onto a plane. The quadrupole (quanton) includes two equivalent dipoles: electrical e^{-}_{+} and magnetic g^{-}_{+}, and this provides electrical symmetry. Fig. 2 shows an electrical dipole. This electric dipole is not included in the structure quanton (Fig. 1). It determines the electrical asymmetry (1) due to the excess of electric quarks. Excessive electrical quarks are connected in pairs inside a dipole (Fig. 2).

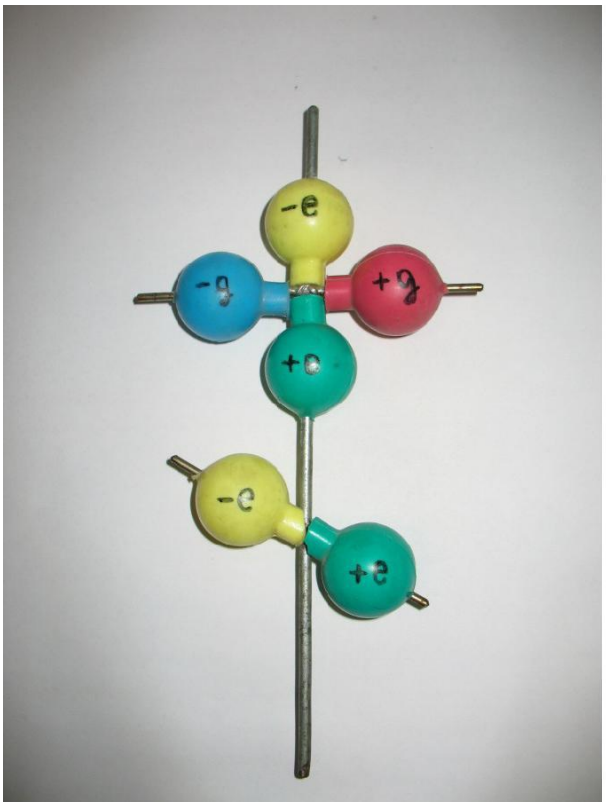

Fig. 3. This cross includes an electromagnetic quadrupole (quanton) and an electrical dipole.

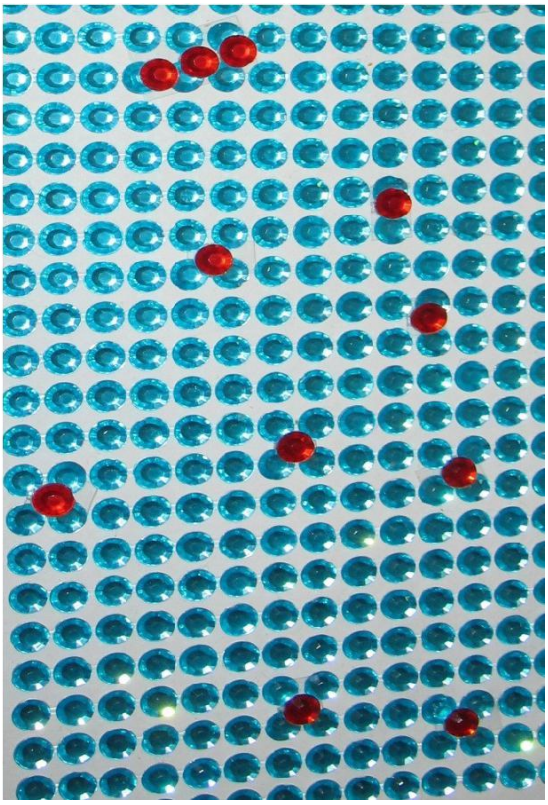

Fig. 4. Players (electrical dipoles, red form) on the field (quantized space-time, blue form) clearly demonstrate electrical asymmetry.

Fig. 5. Portrait of physicist Vladimir Leonov (oil, 2002, artist V. Volkov.). He holds in his hands crosses made of quarks (models).

Fig. 3 shows a cross includes an electromagnetic quadrupole (quanton) and an electric dipole. Fig. 2 shows the players (electric dipoles, red form) on the field (quantized space-time, blue form) clearly demonstrate electrical asymmetry.

Now it is important for us to understand that only four quarks (two electric and two magnetic) are enough to describe and explain all the processes taking place in our Universe. Some of them are already described in the theory of Superunification [1–13].

References:

[1] V. S. Leonov. Quantum Energetics. Volume 1. Theory of Superunification. Cambridge International Science Publishing, 2010, 745 pgs.

[2] Download free. Leonov V. S. Quantum Energetics. Volume 1. Theory of Superunification, 2010. http://leonov-leonovstheories.blogspot.com/2018/04/download-free-leonov-v-s-quantum.html [Date accessed April 30, 2018].

[3] Vladimir Leonov. The Universe: Boiling 'bouillon' of Quantons. viXra:1910.0214 *submitted on 2019-10-13.*

[4] Vladimir Leonov. Quantum Energetics. Theory of Superunification. Contents. viXra:1910.0217 *submitted on 2019-10-13.*

[5] Vladimir Leonov. Fundamental Discoveries of the Space-Time Quantum (Quanton) and Superstrong Electromagnetic Interaction (SEI). **viXra:1910.0267** *submitted on 2019-10-16.*

[6] Vladimir Leonov. Electromagnetic Nature and Structure of Cosmic Vacuum. **viXra:1910.0287** *submitted on 2019-10-16.*

[7] Vladimir Leonov. Quantized Structure of Nucleons. the Nature of Nuclear Forces. **viXra:1910.0290** *submitted on 2019-10-17.*

[8] Vladimir Leonov. The Quantized Structure of the Electron and the Positron. the Neutrino. **viXra:1910.0291** *submitted on 2019-10-17.*

[9] Vladimir Leonov. Unification of Electromagnetism and Gravitation. Antigravitation. **viXra:1910.0300** *submitted on 2019-10-17.*

[10] Vladimir Leonov. Thermal Photons. Molecule Recoil in Photon Emission. **viXra:1910.0328** *submitted on 2019-10-18.*

[11] Vladimir Leonov. Nature of Non-Radiation and Radiation of the Orbital Electron. **viXra:1910.0330** *submitted on 2019-10-18.*

[12] Vladimir Leonov. Two-Rotor Structure of the Photon. Photon Gyroscopic Effect. **viXra:1910.0338** *submitted on 2019-10-18.*

[13] Vladimir Leonov. Gravitational Waves. Wave Equations. **viXra:1910.0342** *submitted on 2019-10-18.*