A New Universe Model

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Abstract: We suggest a new universe model [1-4]. The universe is infinite, but it has a centre consisting of the tachyonic matter, which operates motion of the entire universe. Therefore the universe is stable. In the sun there is a centre consisting of the tachyonic matter, which operates motion of the sun system. In the earth there is a centre consisting of the tachyonic matter, which operates motion of the earth and the moon. In the moon there is a centre consisting of the tachyonic matter, which operates motion of the moon. In atomic nucleus there is a centre consisting of the tachyonic matter, which operates motion of the nucleus. Therefore atomic nuclei are stable.

Keywords: Universe; Model; infinite; matter

In the Unvierse there are two stuffs[1-4]: (1) observable subluminal matter called tardyon and (2) unobservable superluminal string matter called tachyons. They coexist in motion. What are tachyons? Historically tachyons are described as particles which travel faster than light. Tachyon as particle with imaginary mass which is wrong. In our theory tachyon is a string which has no rest time and no rest mass. It is unobservable. Tachyons can be converted into tardyons and vice versa. Tardyonic rotating motion produces the centrifugal force but tachyonic string rotating motion produces the centripetal force which is force of gravity. Using the tachyonic string length $\overline{x}_0$ we found the only string theory, other string theories are guesses. Usiing the coexistence principle of tardyons and tchyons we find an equation that changed the universe: $\overline{F} = -mc^2 / R$. We establish the expansion theory of universe without dark matter and dark energy. We unify the gravitational theory and particle theory and explain the behavior of the entire universe from the smallest to the largest scales. In the universe there are no quarks and no Higgs particles. We prove tha Einstein's principles of equivalence is nonexistent. Therefore the general theory of relativity is wrong. In the universe there are no black holes. The geometrization of all physical fields is mathematical guesses which has no physical reality, because they do not consider and understand the tachyonic string theory.

If quantum teleportation, quantum computation and quantum information are action-at-a-distance then they are unobservable.

We calculate Proton and Neutron radii

The Newtonian gravitation formula has the following form .

$$F = -G \frac{M_1 M_2}{R^2} \qquad (1)$$

We assume

$$G = K_0 \rho_1 \rho_2 \qquad (2)$$

Where ρ_1 and ρ_2 denote the densities of both M_1 and M_2 separately. Using the Cavendish experiment we determine K_0. In (2) $G = 6.7 \times 10^{-8}$ cm³/g sec² and the density of lead $\rho_1 = \rho_2 = 11.37 g / cm^3$. From (2) we have

$$K_0 = 5.2 \times 10^{-10} \text{ cm}^9/\text{g}^3 \text{ sec}^2 \qquad (3)$$

Thus, K_0 is new gravitational constant.

By using (2) we determine the proton radius γ_p. From (2) we have

$$\gamma_p = \left(\frac{9 K_0 m_p^2}{16 \pi^2 G_s} \right)^{1/6} \qquad (4)$$

In the nucleus the strong interaction prevails. We have [5].

$$\frac{\text{strong interaction}}{\text{gravitational interaction}} = \frac{G_s}{G} = 10^{38} \quad (5)$$

where $G_s = 6.7 \times 10^{30}$ cm³/g sec². We know the proton mass $m_p = 1.67 \times 10^{-24}$ g. From (4) we obtain the proton radius

$$\gamma_p = 1.5 \times 10^{-15} \text{ cm} \qquad (6)$$

In the same way we have the neutron radius

$$\gamma_n = 1.5 \times 10^{-15}\,\text{cm} \qquad (7)$$

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