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Refinement of law the world gravitation force for gravitational field of the universe

Valentyn A Nastasenko
Kherson State Maritime Academy, Ukraine

Currently, the force of gravitation is determined by the value F_G of interaction between the two point bodies of mass m_1, m_2 (kg) which is located at a distance r (m) between them, according to the law of world gravitation, who discovered Newton. Currently the law for the force of the gravitational field is discovered. He was received on the basis of found parameters of the gravitational field waves: the frequency $\nu_G = 7.4 \cdot 10^{42}$ Hz, wavelength $\lambda_G = c/\nu_G = 4.051249|432| \cdot 10^{-35}$ m (where c – is speed of light in vacuum), energy of this wave $E_G = h\nu_G$ (where h – is the Planck's constant) and the mass equivalent of energy this wave $m_G = E_G/c^2$. In this case $N = r/\lambda_G$ is the number of gravitational field wavelengths λ_G , which are placed on the vector of the distance r between the selected objects. The connected of

basic and new forces (where G – gravitational constant) is the form (1): $F_G = G \frac{m_1 m_2}{r^2} = G \frac{m_1 \cdot \frac{h\nu_G}{c^2} \cdot m_2}{r^2} = G \frac{m_1 h\nu_G m_2}{c^2 r^2} = G \frac{m_1 h\nu_G}{c^2 r^2} \times \frac{m_2}{r} = c^2 \times \frac{m_2}{r} (N)$. (1) from this dependence it follows that the force F_G of action the gravitational field on an object of mass m_1 , within the framework of the law $E = m_1 c^2$, it is energy function. However, the speed of light c can be obtained through the frequency ν_G and wavelength λ_G gravitational field within the framework of the dependence: $c = \lambda_G \nu_G$. Based on the dependence c^2 , this allows you to select the acceleration of free fall g_G of the universe, in the form of equality (2):

$c^2 = (\lambda_G \nu_G)^2 = (\lambda_G \nu_G) \lambda_G \nu_G = g_G \lambda_G \nu_G = 2.2184638 \cdot 10^{51} \left(\frac{m}{s^2}\right) \times \lambda_G (m)$. (2) Thus, the force F_G of the gravitational field is reduced to the inertial force (3):

$F_G = \frac{m_1}{r} g_G \lambda_G = \frac{m_1 g_G}{N}$. (3) Within the framework of law (3), in order to exclude a gravitational collapse, all objects of the material world in the universe should rotate relative to the centre of mass.

Biography

Valentyn A Nastasenko is a Professor of Department of Transport Technologies of Kherson State Maritime Academy, Kherson, Ukraine. He is a candidate of technical sciences. The scope of his scientific interests includes quantum physics, gravitation theory and the foundations of the material world and the birth of the universe the author of more than 50 scientific papers in these fields.

nascctasenko2004@ukr.net

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