Coulomb-Newton-Estakhr's Law of Gravitational Force and Eatakhr's Elementary Gravitational Mass Constant AHMAD REZA ESTAKHR, Independent Researcher — I reformulate Newton's law of Gravitation base on Coulomb's law of the electrostatic interaction between electrically charged particles. first I consider Newton's Gravitational Constant G as Coulomb's constant of Gravitation $k_g = \frac{1}{4\pi\epsilon_g}$. Where the ϵ_g is permittivity of Gravitational mass. So Gravitational Force is $F_G = k_g \frac{Mm}{r^2}$ then I consider Gravitational mass as a fraction of Estakhr's Elementary Gravitational mass Constant $M = n_1\mu_g$ and $m = n_2\mu_g$ where the μ_g denotes Estakhr's Elementary Gravitational mass Constant and n denotes natural numbers. So Coulomb-Newton-Estakhr's Law of Gravitational Force is: $F_G = G\frac{n_1 n_2 \mu_g^2}{r^2}$. then $\alpha_g = \frac{G\mu_g^2}{\hbar c}$ where the α_g is gravitational fine-structure constant and $\hbar$ is planck's constant and c is speed of light, $m_p^2 = \frac{\hbar c}{G} = \frac{\mu_g^2}{\alpha_g}$ then value of Estakhr's Elementary Gravitational mass Constant is $\mu_g = m_p\sqrt{\alpha_g}$ where m_p denotes planck's mass, Estakhr's Elementary Gravitational mass Constant μ_g is a new fundamental physical constant and then by this way Covariant formulation of electromagnetism is applicable to Gravitation.

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