

Limits of Micro-Gravitation

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See Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva105.pdf

and

www.wbabin.net/saraiva/saraiva223.pdf

and

www.wbabin.net/saraiva/saraiva282.pdf

The mass is the electric dipole moment.

The gravitation is the electric force between electric dipoles.

$$d \ll D ; \quad D = 100 d$$

Average density: $\rho = 5000 \text{ kg} / \text{m}^3$

$$d = M^2 k \frac{(12\pi \epsilon_0 G)^{3/2}}{q^2}$$

$$n = M \frac{\sqrt{12\pi \epsilon_0 G}}{q}$$

$$M = 5000 \frac{4}{3} \pi D^3$$

\Leftrightarrow

$$d_{MAX} = 6.7 \times 10^{-2} \text{ m}$$

$$M_{MAX} = 6 \times 10^6 \text{ kg}$$

For greater masses the dipoles have a constant d:

$$G = \frac{1}{\frac{4}{3} \pi \cdot d^3} \quad \Leftrightarrow \quad d = 1.53 \times 10^3 \text{ m}$$

Macro-dipole

$$M_{MAX} = Q_0 d \quad \Leftrightarrow \quad Q_0 = 3.92 \times 10^3 C$$

For the Earth:

$$M_T = 6 \times 10^{24} = N_T Q_0 d \quad \Leftrightarrow \quad N_T = 6.5 \times 10^{10}$$

How to stop gravity?

Gravity is an electric force, so a box of mu-metal reduces the weight of a mass closed inside.

Force between two electric fields:

$$F = q.E = \frac{E_1 E_2}{G} ; \quad G - \text{gravitational constant}$$

Electric charge:

$$q = \frac{E}{G} \quad \Leftrightarrow \quad E = 1.07 \times 10^{-29}$$

Units unification formula

$$\frac{qkc}{h} = 1 + \frac{\alpha}{2\pi^2}$$

q – electric charge; k – Boltzmann's constant; c – light speed;
h – Planck's constant; α - fine structure constant

Wave or particle :

The photon is a wave, not a particle, because it has a constant speed in the same medium.

The electron is a particle, not a wave, because it has variable speed in the same medium.