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Generation of mass and acceleration

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See the Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva305.pdf
www.wbabin.net/saraiva/saraiva306.pdf
www.wbabin.net/saraiva/saraiva307.pdf
www.wbabin.net/saraiva/saraiva328.pdf
www.wbabin.net/stham/saraiva347.pdf
www.wbabin.net/stham/saraiva366.pdf

SI units. Gravitomagnetism doesn't exist.

A rotating electric charge generates a magnetic field and a mass.
The usual magnetic dipole moment is only a momentum.

$$p = mv = I\pi D^2 \qquad \Leftrightarrow \qquad m = \frac{Q_e D}{2}$$

p – Momentum; m – Mass; v – Speed; I – Electric current; D – Radius;
Q_e -- Total electric charge.

Magnetic field:

$$B = \frac{\mu . Q_e \omega}{4\pi^2 D}$$

B – Magnetic field; μ -- Permeability; ω -- Angular speed.

$$m = \frac{Q_e D}{2} \qquad \text{and} \qquad a = \frac{Gm}{D^2}$$

$$\Leftrightarrow \qquad a = \frac{Q_e G}{2D}$$

a – Acceleration; G – Gravitational constant.

Experimental values of a rotating superconductor:

$$\omega = 1200\ ; \qquad a = 55.1\mu g\ ; \qquad D = 0.075$$

Total charge: $Q_e = 1.2 \times 10^6 C$

$$n = \frac{Q_e}{q_e} = 7.56 \times 10^{24}$$ -- Near Loschmidt constant.

Also a current in a coil generates acceleration:

$$a = \frac{nI\pi.G}{v} \; ; \qquad v = \frac{R}{n^2 \mu}$$

n – Number of turns; I – Electric current; μ -- Permeability;
R – Electric resistance.

n = 1000 ; I = 1A ; R = 10 ; $\mu = 1.3 \times 10^{-3}$

$\Leftrightarrow$ a = 2.8 μg

Earth relation:

$$M_T = \frac{Q_T D_T}{2} \qquad \Leftrightarrow \qquad Q_T = 1.88 \times 10^{18} C$$

$Q_T q_e = 3/10$; q_e -- Electron charge.

M_T -- Earth mass; Q_T -- Earth electric charge; D_T -- Earth radius.

Speed of the electrons, magnetic and electric fields:

$$B = \frac{\mu.nI}{2\pi.D} \; ; \qquad E = \frac{V}{n2\pi.D} \; ; \qquad \text{V – Voltage.}$$

$$v = \frac{E}{B} = \frac{R}{n^2 \mu}$$

$\Leftrightarrow$ $$a = \frac{n^3 \pi.VG\mu}{R^2}$$

If we use an AC voltage we can generate waves of acceleration or gravitational waves.
So, we can communicate with gravitational waves.
If there is the opposite effect – detection of gravitational waves with a coil.

Gravitational wave detector:

We use a pendulum to generate the waves.

$$\Delta V = \frac{R^2}{n^3 \pi . G \mu_0} \Delta a$$

n = 1 ; $R = 10^{-6}\,\Omega$

$$a = \frac{Gm}{D^2} \quad \Leftrightarrow \quad \Delta a = \frac{2Gm}{D^3} \Delta D$$

m = 1 ; D = 0.18 ; $\Delta D = 0.25$

$$\Leftrightarrow \quad \Delta a = 5.72 \times 10^{-9} \quad \Leftrightarrow \quad \Delta V = 68.2 \mu V$$

We can communicate with gravitational waves and measure its speed.
The coils must be shielded for magnetism.