

Electric and magnetic fields II

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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

The electric field is the squared speed of the movement of the virtual electrons. The magnetic field is the speed of the movement of virtual neutrinos.

When the energies of the electron and the neutrino are equal:

$$E_e = E_\nu \quad \Leftrightarrow$$

$$\Leftrightarrow \begin{cases} E_e = m_e E = q_e E \frac{k_B}{x_e} \\ E_\nu = m_\nu B^2 = q_e \sqrt{S} B^2 \end{cases} \quad \Leftrightarrow$$

$$\Leftrightarrow B = c \frac{k_B}{x_e \sqrt{S}} = c \frac{137^3}{2\pi}; \quad S = 1.91 \times 10^{-34} m^2$$

$$E = cB = c^2 \frac{137^3}{2\pi}$$

$$E_e = E_\nu = 209.3 GeV; \quad E_0 = \frac{\epsilon_0^2}{\mu_0^2} = 310 MeV$$

$$\frac{E_e}{E_0} = \frac{137\pi^2}{2}; \quad E_0 = m_e c^2 \frac{137^2}{\pi^3}$$

m_e -- Electron mass; E -- Electric field; q_e -- Electron charge;
 k_B -- Boltzmann constant; x_e -- Electron Compton wavelength;
 m_ν -- Neutrino mass; $i\sqrt{S}$ -- Neutrino Compton wavelength; B -- Magnetic field;
 c -- Light speed; E_0 -- Vacuum energy; ϵ_0 -- Vacuum permittivity;
 μ_0 -- Vacuum permeability.

The momentum conservation law can be violated locally, because there are no closed systems for gravity.

The real closed system is the universe, so a reactionless drive can move the position of the center of the universe.

Intensity:

$$I = \frac{E^2}{2Z_0} ; \quad Z_0 = \sqrt{\frac{\mu_0}{\epsilon_0}}$$

$$E_0 = \frac{1}{Z_0^4}$$

$$I = \rho_E c$$

ρ_E -- Energy density.