

Mass distribution in an electron

Antonio Saraiva – 2010-08-16
ajps2@hotmail.com

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

Spin of the electron:

$$S = \frac{m_e}{2} vR = \frac{m_e}{2} c \frac{x_e}{2\pi} = \frac{h}{4\pi}$$

m_e -- Electron mass; c -- Light speed; x_e -- Electron Compton wavelength;
 h -- Planck constant.

False magnetic moment:

$$\mu = \frac{q_e Rv}{2} = \frac{q_e x_e c}{4\pi}$$

Gyromagnetic ratio:

$$\gamma = \frac{\mu}{S} = \frac{q_e}{m_e}$$

This is the classical gyromagnetic ratio for a disk or a cylinder.

Spin: $S = I\omega = I \frac{v}{R} = \frac{m}{2} vR \quad \Leftrightarrow \quad I = \frac{m}{2} R^2 ; \quad I - \text{Moment of inertia.}$

The mass of the electron is distributed as a disk or a cylinder.

$$q_e \approx \frac{m_e}{x_e} ; \quad \text{The charge has the same distribution.}$$

New Planck constant formula:

$$h = \frac{8m_e q_e}{cx_e^2} ; \quad q_e \text{ -- Electron charge.}$$

Mass resistance:

$$R_{MS} = \frac{C}{m_e} = \frac{h}{2m_e^2} = \frac{x_e c}{2m_e} = \frac{2}{q_m x_e}$$

C – Circulation quantum; $q_m = \Phi_0$ -- Magnetic charge quantum.

Electric resistance quantum:

$$R_E = \frac{h}{2q_e^2} = \frac{q_m}{q_e}$$

Mass current:

$$I_{MS} = m_e f_e ; \quad f_e \text{ -- Electron Compton frequency.}$$

Mass voltage:

$$V_{MS} = \frac{hf_e}{2m_e} = \frac{c^2}{2} ; \quad = \text{Gravitational potential}$$

Energies:

$$E = q_e V_E ; \quad E = m_e V_{MS} = m_e \frac{c^2}{2} ; \quad E = q_m V_M = q_m I_E$$

V_E -- Electric voltage; V_M -- Magnetic voltage; I_E -- Electric current.

Mass resistivity:

$$\rho_{MS} = R_{MS} x_e = \frac{2}{q_m} = 2n_\nu$$

n_ν -- Number of neutrinos from the sun.

True magnetic dipole moment:

$$MDM = \frac{1}{R_{MS}} \frac{q_m^2}{m_e}$$

Exact value of the Boltzmann constant:

$$k_B = 1.38064302 \times 10^{-23} \text{ m}^2 ; \quad \frac{k_B c q_e}{h} = 1 + \frac{\alpha}{2\pi\sqrt{2}}$$

$$2q_m = k_B c$$

α -- Fine structure constant.

$$L^2 V = \Phi_0 = \frac{h}{2q_e} ; \quad LV = C = \frac{h}{2m_e}$$

$$\frac{C}{\Phi_0} = \frac{k_B}{x_e} ; \quad C = \frac{h}{2q_e} \frac{x_e}{k_B}$$

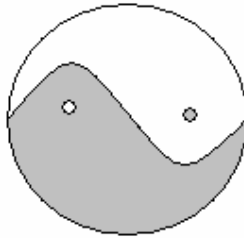
True magnetic dipole moment:

$$MDM = \frac{h}{2\Phi_E} ; \quad \Phi_E = q_e \frac{x_e}{k_B}$$

$$MDM = q_m \frac{k_B}{x_e}$$

Φ_E -- Electric flux.

Wave particle relation:



$$\frac{k_B}{x_e^2} = 2.345 ; \quad \frac{q_m^2}{m_e} = 4.7$$

False magnetic moment = Rotational momentum

$$\mu_e = I_E \text{ Area}$$

Spin: $S_e = \mu_e \frac{m_e}{q_e} = \mu_e \frac{k_B}{x_e} ;$ The spin is a classical rotation.

Light is not quantized.

The Cooper-pairs are a consequence of the superconductivity and not a cause.

Sound pressure:

$$P = \eta \cdot f$$

P – Pressure; η – Viscosity; f – Frequency.

$$\eta_{water} = 10^{-3} ; \quad \eta_{air} = 1.78 \times 10^{-5} ; \quad f = 20kHz$$

$$P_w = 20Pa ; \quad P_A = 0.356Pa$$