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Physics A

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See Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva105.pdf
www.wbabin.net/saraiva/saraiva223.pdf

True magnetic dipole moment of the electron:

$$d_{me} = q_m x_e = \frac{h}{2q_e} x_e = 4.852 \times 10^{-27}$$

q_m -- Magnetic charge; x_e -- Electron's Compton wavelength;
h – Planck's constant; q_e -- Electric charge

Magnetic dipole moment of the proton:

$$d_{mp} = 1.4106 \times 10^{-26}$$

Magnetic dipole moment of the neutron:

$$d_{mn} = 9.66236 \times 10^{-27}$$

$\Leftrightarrow$ $$\frac{d_{mp}}{d_{me}} \approx 3 \; ; \quad \frac{d_{mn}}{d_{me}} \approx 2$$

The proton is made of two confined positrons and one confined electron.
The neutron is made of (all confined) one positron, one electron and a neutrino.

Magnetic dipole moment of the neutrino

$$d_{mv} = q_m \sqrt{k} = 2.86 \times 10^{-32}$$

Units:

$$d_m = L^3 V = Weber.meter$$

In the universe there are a mole of stars.

The vacuum or the gravitational field of the universe is a superfluid and a superconductor. It's why things don't fall from the universe.

About the principle of relativity from Galileo:
In a ship travelling at constant speed, any observer doing experiments below the deck would not be able to tell whether the ship was moving or stationary.
So how can the Michelson-Morley experiment detect the earth speed inside the earth atmosphere and inside the earth gravitational field.

The particles with negative charge have negative mass.

We know less than a half of the reality.

Cooper pair distance: $R_C = 1.45\times10^{-8}m$

$$R_C = \frac{x_e\alpha^{-2}}{\pi}$$

Cooper pair binding energy:

$$E = 137.036\frac{khf_e^{\,3}}{c^2} = 2.1\times10^{-3}eV$$

Electromagnetic units:

Electric displacement field = D = LV^2

Polarization density = P = LV^2

Electric potential (voltage) = $V_e = LV^2$

The electric displacement field and the polarization density are electric potentials.

$$C.m^{-2} = A.s.m^{-2} = m^2.kg.s^{-3}.A^{-1}$$

$$\Leftrightarrow \quad kg = m^{-4}.s^4.A^2 = L^4V^2$$

Displacement current: $J_e = V^3$

Relative maximum energy of the electron:

Mass: $m = \frac{hf}{w^2}$; Acceleration: $g = \frac{kwf^3}{c^2}$

Force: $F = \frac{hkf^4}{c^2w}$; Energy: $E = \frac{khf^4x}{c^2w}$

Lorentz's equations:

$$f = \frac{cf_0\sqrt{c^2 - v^2}}{c^2 - vw_0} \quad ; \qquad w = c^2\frac{w_0 - v}{c^2 - vw_0} \quad ; \qquad x = \frac{c}{f_0}\frac{w_0 - v}{\sqrt{c^2 - v^2}}$$

Energy:

$$E = \frac{khf^3}{c^2} \qquad (\text{v} = 0)$$

$$E = \frac{chkf_0^{\ 3}(c^2 - v^2)^{3/2}}{(c^2 - vw_0)^3}$$

$$\frac{dE}{dv} = 0 \qquad \Leftrightarrow \qquad v = w_0$$

$$E = \frac{chkf_0^{\ 3}}{(2c\Delta w_0)^{3/2}} \quad ; \qquad \Delta w_0 = \frac{kf_0^{\ 2}}{2c} = 4.8756\times 10^{-3}$$

$$E = 89.63GeV = \frac{hc}{\sqrt{k}}$$

The relative maximum of the electron energy is equal to the rest energy of the neutrino.

The Schrodinger wave function must has only one dimension.
So, there's no wave function collapse and the particles have a precise trajectory.

The wave function is a magnetic vector potential:

$$A = A_0(\cos(kx - wt) + i\sin(kx - wt))$$

$$A' = A_0(\cos(kx - wt) - i\sin(kx - wt))$$

$$AA' = A_0^{\ 2}$$

$$A = A_0 e^{i(kx - wt)}$$

$$\frac{dA}{dt} = A_0 e^{i(kx - wt)}(-iw)$$

$$\frac{d^2A}{dx^2} = A_0 e^{i(kx-wt)}(-k^2)$$

$$\frac{dA}{dt} = iA_0 \frac{d^2A}{dx^2}$$

$$A_0 = \frac{c\lambda}{2\pi}$$

$$\frac{dA}{dt} = iA_0 \frac{d^2A}{dx^2} + v^2$$

$v^2 =$ Gravitational potential