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Unified Absolute Relativity Theory – II
Some Particles

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Light speed - $c = 2.99792458 \times 10^{8}$
Electron charge - $q = 1.60217653 \times 10^{-19}$
Planck's constant - $h = 6.6260693 \times 10^{-34}$ (all SI units)

Proton

The true values of mass and energy of the proton doesn't fit the formula $E = mc^2$.

$m = 1.67282377 \times 10^{-27}$
$E = 938.272029 MeV = 1.50327742 \times 10^{-10}$

$$E = hf \quad \Leftrightarrow \quad f = 2.26873181 \times 10^{23}$$

Calculation of k

Mass - $m = \dfrac{hf}{c^2 - kf^2} \quad \Leftrightarrow \quad k = 2.10914336 \times 10^{-34} \quad ; \quad \left(\dfrac{h}{k} = \pi\right)$

Wavelength - $x^2 = \dfrac{c^2}{f^2} - k \quad \Leftrightarrow \quad x = 1.32133005 \times 10^{-15}$

Speed of the field - $E = mw^2 \quad \Leftrightarrow \quad w = 2.99774351 \times 10^{8}$

$\Delta w = c - w = 1.8107 \times 10^{4}$

Acceleration field - $g = \dfrac{kf^3}{w} \quad \Leftrightarrow \quad g = 8.21601285 \times 10^{27}$

Force between two protons at one wavelength - $F = mg = 13.7439416$

$$\begin{cases} g = \dfrac{kcf_0{}^3\left(c^2 - v^2\right)^{3/2}}{\left(c^2 + vw_0\right)^2\left(w_0 + v\right)} \\ m = \dfrac{hf_0\sqrt{c^2 - v^2}\left(c^2 + vw_0\right)}{c^3\left(w_0 + v\right)^2} \end{cases} \quad \Leftrightarrow \quad \begin{cases} g = \dfrac{c\left(c^2 - w_0{}^2\right)^{3/2}\left(c^2 - v^2\right)^{3/2}}{\sqrt{k}\left(c^2 + vw_0\right)^2\left(w_0 + v\right)} \\ m = \dfrac{h\sqrt{c^2 - w_0{}^2}\sqrt{c^2 - v^2}\left(c^2 + vw_0\right)}{\sqrt{k}c^3\left(w_0 + v\right)^2} \end{cases}$$

$$\begin{cases} \left(c^2 - w_0{}^2\right)^3\left(c^2 - v^2\right)^3 = a\left(c^2 + vw_0\right)^4\left(w_0 + v\right)^2 \\ \left(c^2 - w_0{}^2\right)\left(c^2 - v^2\right)\left(c^2 + vw_0\right)^2 = b\left(w_0 + v\right)^4 \end{cases}$$

$$a = \frac{g^2k}{c^2} \quad ; \quad b = \frac{m^2c^6k}{h^2}$$

$$\frac{\Delta w_0}{\Delta v} \approx \sqrt[3]{\frac{g^2k}{64c^4}} \approx \frac{m^2kc^2}{4h^2} = 3.02017586\times10^{-5} = n$$

$$\Delta w_0 = c\frac{\sqrt{\left(c^2 - w^2\right)n} - \Delta w}{w} \quad \Leftrightarrow \quad \Delta w_0 = 4.86029355\times10^{-1}$$

$$\Delta v = 1.60927501\times10^4 \quad ; \quad v = -2.99776365\times10^8$$

$$kf_0{}^2 = 2c\Delta w_0 \quad \Leftrightarrow \quad f_0 = 1.17544835\times10^{21}$$

$$m_0 = 8.66598871\times10^{-30} \quad ; \quad x_0 = 2.55045199\times10^{-13}$$

$$E_0 = hf_0 = 4.86126345MeV$$

$$G_P = \frac{Fx_0{}^2}{m_0{}^2} \quad ; \quad \sqrt{\frac{m_0G_P}{2x_0}} = 1.5c$$

Electron

$$E = 0.510998918MeV = 8.18710473\times10^{-14}$$

$$E = hf \quad \Leftrightarrow \quad f = 1.23558996\times10^{20}$$

$$w \approx c \quad ; \quad x = 2.42631025\times10^{-12}$$

$$\Delta w = \frac{kf^2}{2c} \quad \Leftrightarrow \quad \Delta w = 5.37036919\times10^{-3}$$

$$m = \frac{hf}{c^2 - kf^2} \qquad \Leftrightarrow \qquad m = 9.10938251 \times 10^{-31}$$

$$g = \frac{kf^3}{w} \qquad \Leftrightarrow \qquad g = 1.32711485 \times 10^{18}$$

Force between two electrons at a distance equal to them wavelength:

$$F = mg \qquad \Leftrightarrow \qquad F = 1.20891968 \times 10^{-12}$$

$$\frac{\Delta w_0}{\Delta v} = n = \frac{c - w}{c + w} = 8.9568117 \times 10^{-12}$$

$$\Delta v = nc = 2.6851846 \times 10^{-3} \quad ; \qquad v \approx -c \quad ; \qquad \Delta w_0 = 2.40506928 \times 10^{-14}$$

$$f_0 = 2.61478566 \times 10^{14} \quad ; \qquad x_0 = 1.14652785 \times 10^{-6}$$

$$m_0 = 1.92774978 \times 10^{-36}$$

$$G_e = \frac{Fx_0^{\,2}}{m_0^{\,2}} \quad ; \qquad \sqrt{\frac{m_0 G_e}{2x_0}} = 2c$$

Muon neutrino – graviton

We have found that there's a quantization of the speeds of the fields of the particles and of the half of the escape speeds. We think that the graviton-neutrino as an imaginary speed equal to "light speed".

$$w_0 = ic = \sqrt{c^2 - kf_0^{\,2}} \qquad \Leftrightarrow \qquad f_0 = \frac{\sqrt{2}c}{\sqrt{k}} = 2.91932637 \times 10^{25}$$

Gravitational constant - $G = 6.67 \times 10^{-11}$

$$\begin{cases} F = \dfrac{kh\left(c^2 - v^2\right)^2 {f_0}^4}{c^2\left(c^2 + vw_0\right)\left(w_0 + v\right)^3} \\ F = G\dfrac{{m_0}^2}{{x_0}^2} \\ v = -c + \Delta v \\ \Delta v = \dfrac{1}{2}\sqrt{\dfrac{2Gm_0}{x_0}} \\ \Delta v^2 = \dfrac{Gh}{kc} \end{cases}$$

$${x_0}^2 = -\frac{k}{2}$$

$$m_0 = \frac{hf_0}{c^2 - k{f_0}^2} \qquad \Leftrightarrow \qquad m_0 = -2.15227232 \times 10^{-25}$$

$$g = 0.136127839$$

Force between two neutrinos: $F = 2.92984179 \times 10^{-26}$

$$f = f_0\frac{\sqrt{2c\Delta v}}{2c} \qquad \Leftrightarrow \qquad f = 3.44723628 \times 10^{16}$$

Detectable mass and energy of the graviton-muon neutrino:

$$m = \frac{hf}{c^2 - kf^2} = 2.5414737 \times 10^{-34} \;\; ; \qquad E = mc^2 = 142.5eV$$

$$x = 8.69660312 \times 10^{-9}$$

As we have seen, in the formulas with the gravitational constant, this particle is obviously related with gravity.

Neutron

$$E = 939.56536MeV = 1.50534957 \times 10^{-10}$$

$$E = hf \qquad \Leftrightarrow \qquad f = 2.27185908 \times 10^{23}$$

$$x^2 = \frac{c^2}{f^2} - k \qquad \Leftrightarrow \qquad x = 1.31951099 \times 10^{-15}$$

$$m = \frac{hf}{c^2 - kf^2} = 1.67513018 \times 10^{-27}$$

$$E = mw^2 \qquad \Leftrightarrow \qquad w = 2.99774301 \times 10^8 \quad ; \quad \Delta w = 1.8156506 \times 10^4$$

$$g = \frac{kf^3}{w} = 8.25003648 \times 10^{27}$$

Force between two neutrons: $F = mg = 13.8198851$

$$w_0 = iV_0 \qquad \Leftrightarrow$$

$$\begin{cases} g = \dfrac{c\left(c^2 + V_0^2\right)^{3/2}\left(c^2 - v^2\right)^{3/2}\left(c^4 v - v^3 V_0^2 - 2vV_0^2 c^2\right)}{\sqrt{k}\left(c^4 + v^2 V_0^2\right)^2\left(v^2 + V_0^2\right)} \\ m = \dfrac{h\sqrt{c^2 + V_0^2}\sqrt{c^2 - v^2}\left(c^2 v^2 - c^2 V_0^2 + 2v^2 V_0^2\right)}{\sqrt{k}c^3\left(v^2 + V_0^2\right)^2} \end{cases}$$

$$a = \frac{g^2 k}{c^2} = 1.597263 \times 10^5 \quad ; \qquad b = \frac{m^2 kc^6}{h^2} = 9.78623176 \times 10^{29}$$

$$3V_0^2 = c^2 - \frac{\sqrt{a}c^7}{b^{3/2}} \qquad \Leftrightarrow \qquad V_0 = 3.01177016 \times 10^6$$

$$v = c^2 w \frac{c^2 + V_0^2}{c^4 + w^2 V_0^2} \qquad \Leftrightarrow \qquad v = -2.99774305 \times 10^8$$

$$\Delta V_0 = 2.96780688 \times 10^8$$

$$\Delta v = 1.8153 \times 10^4 = \sqrt{\frac{m_0 G_N}{2x_0}} \qquad \text{and} \qquad G_N = \frac{Fx_0^2}{m_0^2}$$

$$kf_0^2 = 2c\Delta V_0 \qquad \Leftrightarrow \qquad f_0 = 2.90462531 \times 10^{25}$$

$$m_0 = 2.18534267 \times 10^{-25} \quad ; \qquad x_0 = i1.02169944 \times 10^{-17}$$

Bosons W and Z

$$E_W = 80.403GeV \quad \Leftrightarrow \quad f_W = 1.94413601\times10^{25}$$

$$E_Z = 91.1876GeV \quad \Leftrightarrow \quad f_Z = 2.2049065\times10^{25}$$

$$\left(\frac{c}{\sqrt{k}} = 2.06427548\times10^{25}\right)$$

$$m_W = \frac{hf_W}{c^2 - kf_W{}^2} \quad \Leftrightarrow \quad m_W = 1.26828992\times10^{-24}$$

$$m_Z = \frac{hf_Z}{c^2 - kf_Z{}^2} \quad \Leftrightarrow \quad m_Z = -1.15375672\times10^{-24}$$

$$E_W = m_W w_W{}^2 \quad \Leftrightarrow \quad w_W = 1.00781784\times10^{8}$$

$$E_Z = m_Z w_Z{}^2 \quad \Leftrightarrow \quad w_Z = i1.12529387\times10^{8}$$

$$\Delta w_W = 1.99010674\times10^{8} \quad ; \quad x_{0W} = 5.18388551\times10^{-18}$$

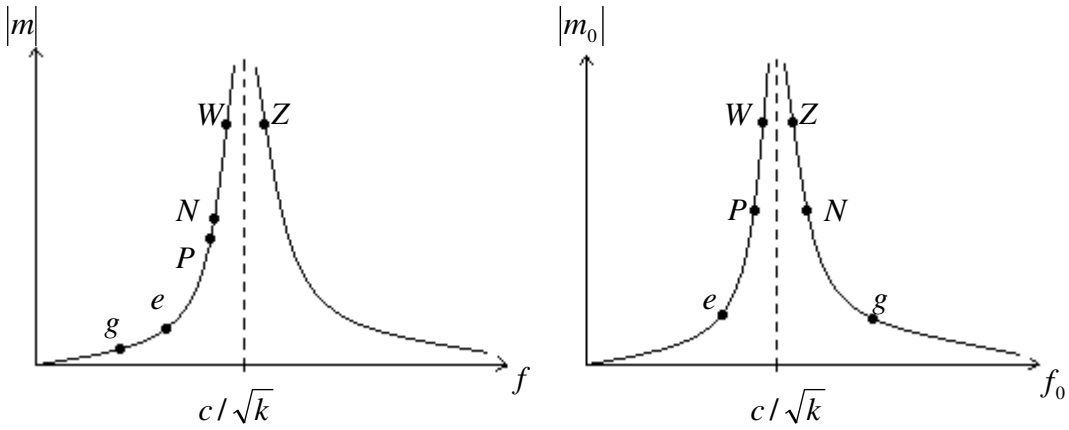
$$\Delta w_Z = 1.87263071\times10^{8} \quad ; \quad x_{0Z} = i5.10358999\times10^{-18}$$

$$g_W = 1.53781464\times10^{34} \quad ; \quad F_W = 1.95039481\times10^{10}$$

$$g_Z = 2.00914222\times10^{34} \quad ; \quad F_Z = 2.31806134\times10^{10}$$

$$|v| << c \quad \Leftrightarrow \quad m_0 \approx m \quad ; \quad x_0 \approx x$$

The two levels of the particles existence



The Z boson has negative mass in both “worlds”.

The relative escape speed between the two “worlds” performs the brake of symmetry.

This speed is almost equal to “light speed” that is the local expansion speed of our universe relative to it center.