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Unified Absolute Relativity Theory – III

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This theory agrees with all known experimental data. For the overall theory, see – Unified absolute relativity theory E (I) http://wbabin.net/saraiva/saraiva34.pdf.
(SI system of Units.)

Lorentz's equations

$$\begin{cases} x = \dfrac{x_0 + vt_0}{\sqrt{1 - v^2/c^2}} \\ t = \dfrac{t_0 + vx_0/c^2}{\sqrt{1 - v^2/c^2}} \end{cases} \quad \Leftrightarrow \quad c^2t^2 - x^2 = c^2{t_0}^2 - {x_0}^2$$

For n relative frames:

$$c^2{t_1}^2 - {x_1}^2 = c^2{t_2}^2 - {x_2}^2 = \cdots = c^2{t_n}^2 - {x_n}^2 \text{, so}$$

$$c^2{t_n}^2 - {x_n}^2 = k \quad \text{(constant)}$$

According to the Einstein's relativity theory, k can be equal to zero for light, but we demonstrate that k is a small non-zero value.

Basic formulas

Light speed: $$w = \frac{x}{t} \quad \Leftrightarrow \quad w = \sqrt{c^2 - kf^2} \quad \text{with} \quad f = \frac{1}{t}$$

Mass: $$m = \frac{hf}{c^2 - kf^2}$$

Energy: $$E = hf = mw^2$$

Force: $F = mg$ and acceleration: $g = \frac{dw}{dt} = \frac{kf^3}{w}$

There's a very important problem in orthodox relativity theory: the true mass and energy of the proton do not agree with Einstein's formula, $E = mc^2$.

$c = 2.99792458 \times 10^8$; $q = 1.60217653 \times 10^{-19}$; $h = 6.6260693 \times 10^{-34}$

True mass of the proton: $m = 1.67282377 \times 10^{-27}$

The erroneous mass of the proton calculated with the Einstein's formula is $m = 1.67262171 \times 10^{-27}$. The true mass is obtained by direct measurement of the nuclei of hydrogen atoms.

Energy: $E = 938.272029 MeV$

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

Calculation of k

$$m = \frac{hf}{c^2 - kf^2} \quad \Leftrightarrow \quad k = \frac{mc^2 - hf}{mf^2} \quad \Leftrightarrow$$

$$\Leftrightarrow \quad \underline{k = 2.10914336 \times 10^{-34} m^2} \qquad \left(\frac{h}{k} = \pi \right)$$

Wavelength of the proton: $x^2 = \frac{c^2}{f^2} - k \quad \Leftrightarrow \quad x = 1.32133005 \times 10^{-15}$

$E = mw^2 \quad \Leftrightarrow \quad w = 2.99774351 \times 10^8$ -- Reference speed of its field

Acceleration of the field of the proton:

$$g = \frac{dw}{dt} = \frac{kf^3}{w} \quad \Leftrightarrow \quad g = 8.21601285 \times 10^{27}$$

Force between two protons at their wavelength distance:

$$F = mg \quad \Leftrightarrow \quad F = 13.7439416 N$$

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

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

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

$$\Leftrightarrow \quad \begin{cases} \left(1 - y^2\right)\left(1 + xy\right)^2 = P\left(y^4 - x^2 - 4xy\right) \\ x + y = Q\left(1 + xy\right) \end{cases}$$

$$x = \frac{w_0}{c} \quad ; \quad y = \frac{v}{c} \quad ; \quad P = \frac{b}{c^4} \quad ; \quad Q = \sqrt[10]{\frac{a}{b^3}}.c$$

$$\Leftrightarrow \quad w_0 = 2.99781576 \times 10^8 \quad ; \quad v = -7.46603737 \times 10^7$$

$$kf_0{}^2 = c^2 - w_0{}^2 \quad \Leftrightarrow \quad f_0 = 1.75882537 \times 10^{23}$$

$$m_0 = 1.29678751 \times 10^{-27} \quad ; \quad x_0 = 1.70444196 \times 10^{-15}$$

The observable mass is that in our reference frame. The m_0 mass is related to the reference frame without the auto-gravitational interaction.

Electron

$$E = 0.510998918 MeV$$

$$E = hf \quad \Leftrightarrow \quad f = 1.23558996 \times 10^{20}$$

$$w \approx c \quad ; \quad x = 2.42631025 \times 10^{-12}$$

$$\Delta w = c - w = \frac{kf^2}{2c} \quad \Leftrightarrow \quad \Delta w = 5.37036919 \times 10^{-3}$$

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

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

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

Using the same formulas as for the proton:

$$\Leftrightarrow \quad w_0 \approx c \quad ; \quad \Delta w_0 = c - w_0 = 1.6560298 \times 10^{-10}$$

$$k{f_0}^2 = 2c\Delta w_0 \quad \Leftrightarrow \quad f_0 = 2.16973339 \times 10^{16}$$

$$x_0 = 1.38170182 \times 10^{-8}$$

We verify that for the electron:

$$F = \frac{1}{4\pi\varepsilon_0} \frac{q^2}{{x_0}^2} \quad ; \quad m_0 = 1.59963516 \times 10^{-34}$$

Boson W

$$E = 80.403 GeV \quad \Leftrightarrow \quad f = 1.94413601 \times 10^{25}$$

$$m = 1.26828992 \times 10^{-24} \quad ; \quad g = 1.53781464 \times 10^{34}$$

$$x = 5.18388551 \times 10^{-18} \quad ; \quad w = 1.00781784 \times 10^{8}$$

$$P = 69.4500624 \quad ; \quad Q = 0.336171843 \quad \Leftrightarrow$$

$$\Leftrightarrow \quad w_0 = 1.30485837 \times 10^{8} \quad ; \quad v = -3.47953217 \times 10^{7}$$

$$f_0 = 1.85848320 \times 10^{25} \quad ; \quad m_0 = 7.23249035 \times 10^{-25}$$

$$x_0 = 7.02109315 \times 10^{-18} \quad ; \quad F = 1.95039481 \times 10^{10}$$

Neutron

$$E = 939.56536 MeV \quad \Leftrightarrow \quad f = 2.27185908 \times 10^{23}$$

$$x = 1.31951099 \times 10^{-15} \quad ; \quad w = 2.99774301 \times 10^{8}$$

$$m = 1.67513018 \times 10^{-27} \quad ; \quad g = 8.25003648 \times 10^{27}$$

$$F = 13.8198851$$

The reference field speed is imaginary: $w_0 = iV_0$

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

$$\Leftrightarrow \quad \begin{cases} y^2\left(1 + x^2\right)^3\left(1 - y^2\right)^3\left(1 - x^2 y^2 - 2x^2\right)^2 = R\left(1 + x^2 y^2\right)^4\left(x^2 + y^2\right)^2 \\ \left(1 + x^2\right)\left(1 - y^2\right)\left(y^2 - x^2 + 2x^2 y^2\right)^2 = P\left(x^2 + y^2\right)^4 \end{cases}$$

$$x = \frac{V_0}{c} \quad ; \quad y = \frac{v}{c} \quad ; \quad v \approx -c \quad ; \quad d = 1 - y^2 \quad ; \quad R = \frac{a}{c^2} \quad ; \quad P = \frac{b}{c^4}$$

$$\Leftrightarrow \quad \begin{cases} d = P\left(1 + x^2\right) \\ d^3 = \dfrac{R\left(1 + x^2\right)^3}{\left(1 - 3x^2\right)^2} \end{cases} \quad \Leftrightarrow$$

$$\Leftrightarrow \quad V_0 = 3.01176742 \times 10^{6} \quad ; \quad v = -2.99774295 \times 10^{8}$$

$$f_0 = 2.06437964 \times 10^{25} \quad ; \quad m_0 = -1.50800469 \times 10^{-21}$$

$$x_0 = i1.45892128 \times 10^{-19} \quad ; \quad E_0 = 85.38 GeV$$

Boson Z

$$E = 91.1876 GeV \quad \Leftrightarrow \quad f = 2.2049065 \times 10^{25}$$

$$m = -1.15375672 \times 10^{-24} \quad ; \quad w = i1.12529387 \times 10^{8}$$

$$g = 2.00914222 \times 10^{34} \quad ; \quad F = 2.31806134 \times 10^{10}$$

$$R = 10.540098 \quad ; \quad P = 57.4730236 \quad \Leftrightarrow$$

$$\Leftrightarrow \quad V_0 = 1.27872606 \times 10^8 \quad ; \quad v = -i1.32257277 \times 10^7$$

$$f_0 = 2.2442139 \times 10^{25} \quad ; \quad m_0 = -9.09421435 \times 10^{-25}$$

$$x_0 = 5.69787963 \times 10^{-18}$$

Muon neutrino = graviton

We found that there is a special particle related to gravity that is a kind of neutrino:

$$w_0 = ic = \sqrt{c^2 - kf_0^{\ 2}} \quad \Leftrightarrow \quad f_0 = 2.91932637 \times 10^{25}$$

$$x_0^{\ 2} = -\frac{k}{2} \quad ; \quad \text{Gravitational constant -- } G = 6.67 \times 10^{-11}$$

These formulas are exactly valid for this particle:

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

$$m_0 = \frac{hf_0}{c^2 - kf_0^{\ 2}} \quad \Leftrightarrow \quad m_0 = -2.15227232 \times 10^{-25}$$

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

$$m = 2.5414737 \times 10^{-34} \quad ; \qquad E = 142.57 eV$$

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

Monopole

Magnetic charge: $\quad q_m = \Phi_0 = \dfrac{h}{2.q}$

Magnetic force: $\quad F = \dfrac{1}{\mu_0} \dfrac{q_m{}^2}{x_0{}^2} \qquad \Leftrightarrow$

$$\Leftrightarrow \qquad F x_0{}^2 = 3.40300707 \times 10^{-24} = \frac{F k V_0{}^2}{c^2 + V_0{}^2}$$

From the basic equations used for the neutral particles and $w_0 = iV_0$:

$$\begin{cases} h\left(c^2 - v^2\right)^2 \left(c^2 + V_0{}^2\right)^2 = Fkc^2\left[c^2\left(v^3 - 3vV_0{}^2\right) - vV_0\left(3v^2V_0 - V_0{}^3\right)\right] \\ vV_0\left(v^3 - 3vV_0{}^2\right) + c^2\left(3v^2V_0 - V_0{}^3\right) = 0 \end{cases} \qquad \Leftrightarrow$$

$$\Leftrightarrow \qquad V_0{}^2 = \frac{c^2}{3} \qquad \Leftrightarrow \qquad F = 6.45381843 \times 10^{10}$$

$$F = \frac{hf}{c^2 - kf^2} \frac{kf^3}{\sqrt{c^2 - kf^2}} \qquad \Leftrightarrow \qquad f = 2.006332 \times 10^{25}$$

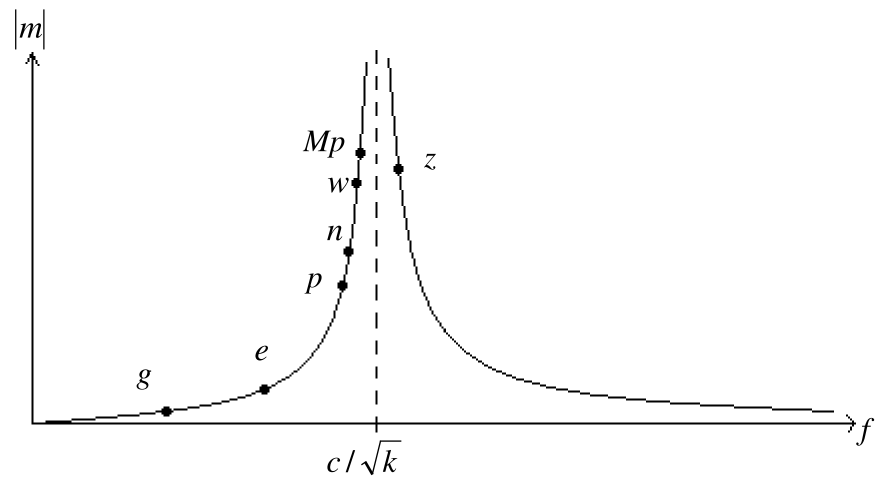
$$m = 2.67232276 \times 10^{-24} \quad ; \quad E = 82.98 GeV \quad ; \quad x = 3.51545977 \times 10^{-18}$$

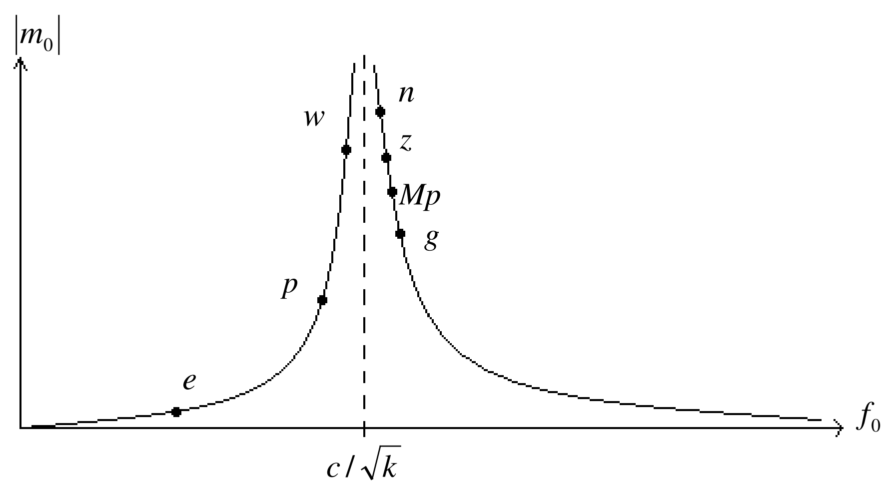
$$f_0 = 2.38362 \times 10^{25} \quad ; \qquad m_0 = -5.27196895 \times 10^{-25}$$

$$E_0 = 98.58 GeV \quad ; \qquad x_0 = i7.26144501 \times 10^{-18}$$

	m	m_0
Electron	9.11×10^{-31}	1.60×10^{-34}
Graviton	2.54×10^{-34}	-2.15×10^{-25}

Proton	1.67×10^{-27}	1.29×10^{-27}
Neutron	1.67×10^{-27}	-1.51×10^{-21}
Boson W	1.27×10^{-24}	7.23×10^{-25}
Boson Z	-1.15×10^{-24}	-9.09×10^{-25}
monopole	2.67×10^{-24}	-5.27×10^{-25}





Top quark

$$mc^2 = 178GeV \quad \Leftrightarrow \quad m = 3.173\times10^{-25}$$

$$m = \frac{hf}{c^2 - kf^2} \quad \Leftrightarrow \quad f_1 = 1.6277\times10^{25} \quad \Leftrightarrow \quad E_1 = 67.32GeV$$

$$\Leftrightarrow \qquad f_2 = 2.6178 \times 10^{25} \quad \Leftrightarrow \qquad E_2 = 108.27 GeV$$

The values E_1 and E_2 are the true values of the rest energy of the Top quark if it is a charged or neutral particle.

We know that the wavelength of quarks u and d is $x < 1 \times 10^{-18}$ so the mass and energy of the quarks are:

$$f \approx 2.064 \times 10^{25} \quad ; \quad E \approx 85.37 GeV \quad ; \quad m \approx 1 \times 10^{-24}$$

The Higgs particle is not a true particle.
It's just an oxygen balloon given to the dying "standard model ".