the general science journal

The Particles and Absolute Relativity

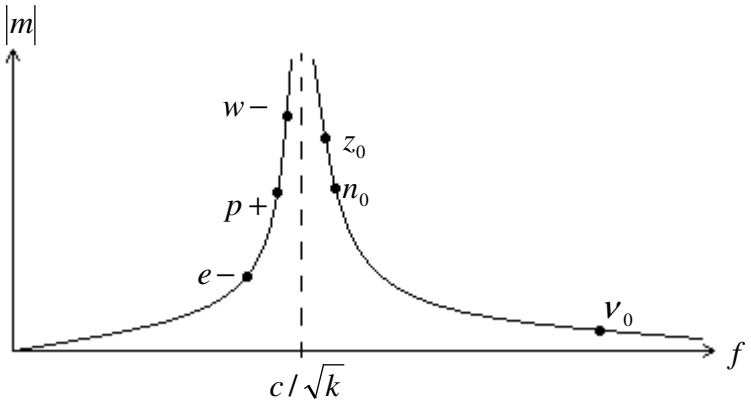
António Saraiva – 2008-05-14
ajps2@hotmail.com

Mass

$$m = \frac{hcf}{\left(c^2 - kf^2\right)^{3/2}} \quad ; \quad k = \frac{c^2}{f^2} - x^2 = 1.99257 \times 10^{-34}\, m^2$$

c – Light speed for low frequency; h – Planck's constant; f – Frequency

x – Wavelength; k – Universal constant.



The neutral particles have imaginary mass.

Neutron

$$m = i1.6749 \times 10^{-27}\, kg \qquad m = \frac{ch\sqrt{c^2 - w^2}}{w^3\sqrt{k}}$$

$w = i2.9206 \times 10^9\, ms^{-1}$ (Speed of the field)

Rest energy: $E = mw^2 = -i89.2GeV$

$$f^2 = \frac{c^2 - w^2}{k} \qquad f = 2.1 \times 10^{26}\, Hz$$

$$x^2 = \frac{kw^2}{c^2 - w^2} \qquad x = i1.39 \times 10^{-17}\, m$$

Neutrino

$$m = i4 \times 10^{-36}\, kg \qquad w = i5.96 \times 10^{13}\, ms^{-1}$$

$$E = -i88.73 GeV \qquad x \approx i\sqrt{k}$$

$$f = 4.266 \times 10^{30}\, Hz$$

Boson Z

$$E = i91.2 GeV \qquad E = \frac{hc\sqrt{c^2 - w^2}}{w\sqrt{k}}$$

$$w = i1.26 \times 10^{9}\, ms^{-1} \qquad f = 9.27 \times 10^{25}\, Hz$$

$$x = i1.36 \times 10^{-17}\, m \qquad m = i9.2 \times 10^{-27}\, kg$$

Boson W

$$E = 80.4 GeV \qquad w = 2.2215 \times 10^{8}\, ms^{-1}$$

$$f = 1.44 \times 10^{25}\, Hz \qquad x = 1.542 \times 10^{-17}\, m$$

$$m = 2.61 \times 10^{-25}\, kg$$

Top quark

$$E = 174.2 GeV \qquad w = 1.361 \times 10^{8}$$

$$f = 1.9116 \times 10^{25} \qquad x = 7.11766 \times 10^{-18}$$

$$m = 1.5076 \times 10^{-24}$$

Electron

$$E = 0.510998918 MeV \qquad f = 1.23559 \times 10^{20}$$

$$x = 2.42631017 \times 10^{-12} \qquad w \approx c$$

$$c - w = \Delta w \qquad 2c\Delta w = kf^2 \qquad \Delta w = 5.07354714 \times 10^{-3}\, ms^{-1}$$

$m = 9.10938229 \times 10^{-31}$ $\quad$ $g = \frac{kf^3}{w} = 1.327 \times 10^{18}\, ms^{-2}$

$F = mg = 1.20892 \times 10^{-12}\, N$

Proton

$E = 938.272013 MeV$ $\quad$ $w = 2.99775356 \times 10^8$

$\Delta w = 1.7102 \times 10^4$ $\quad$ $f = 2.26852 \times 10^{23}$

$m = 1.67275 \times 10^{-27}$ $\quad$ $x = 1.32147 \times 10^{-15}$

Monopole

$F = \frac{q_m^{\ 2}}{\mu_0 x^2} = \frac{khc}{x^4}$ $\quad$ $q_m = \frac{h}{2q_e}$

q_e -- Electric charge; μ_0 -- Vacuum permeability

$x = 3.41 \times 10^{-18}$ $\quad$ $f = 2.0644 \times 10^{25}$

$w = 7.0405762 \times 10^7$ $\quad$ $m = 1.175 \times 10^{-23}$

$E = 363.5 GeV$