

Physics N

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Autoreaction system correction:

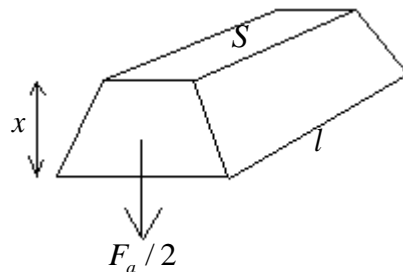
$$m = \rho \cdot x \cdot S \frac{n+1}{2} \dots\dots\dots; \dots\dots \Delta v = v \frac{n-1}{n}$$

$$\Delta t = \frac{2 \cdot x \cdot n}{v(n+1)} \dots\dots\dots; \dots\dots \cdot g = \frac{v^2(n^2-1)}{2 \cdot x \cdot n^2}$$

$$F_a = mg = \rho \cdot S \cdot v^2 \frac{n-1}{n} \frac{(n+1)^2}{2n}$$

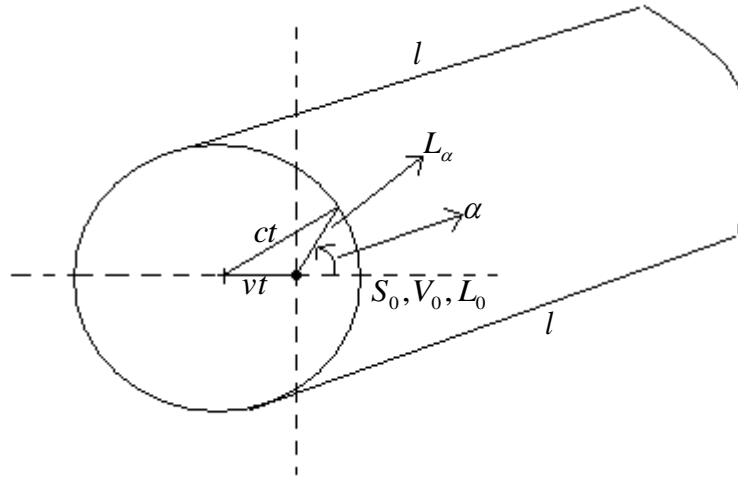
$$F_c = 2\rho \cdot S \cdot v^2 \frac{n-1}{n}$$

$$F_T = F_c - F_a = -\rho \cdot S \cdot v^2 \frac{(n-1)^3}{2n^2}$$



It's obvious that we must use two systems with opposite directions of rotation.

Testing a possible model of autoreaction



$$S_0 = L_0 l \dots; \dots L_0 V_0 = L_\alpha V_\alpha$$

$$L_\alpha = t(\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha) \dots; \dots V_\alpha = \frac{L_0 V_0}{L_\alpha}$$

$$dF_C = dm \frac{V_\alpha^2}{R} \dots; \dots R = \frac{L_\alpha}{2}$$

$$dm = \rho l \frac{L_\alpha^2}{2} d\alpha$$

$$dF_C = \rho l \frac{L_0^2 V_0^2}{L_\alpha} d\alpha \dots; \dots dF_V = 2\rho (l L_0) V_0^2 \frac{L_0}{L_\alpha} d\alpha \cos \alpha$$

$$F_V = 2\rho l L_0^2 V_0^2 f \int_0^\pi \frac{\cos \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha} d\alpha \dots; \dots f = \frac{1}{t}$$

$$F_V = \rho l L_0^2 V_0^2 f \frac{-v\pi}{c^2 - v^2}$$

$$dF_A = dm a_\alpha \dots; \dots a_\alpha = \frac{\Delta V_\alpha}{\Delta t} \dots; \dots \Delta t = \frac{dx}{V_\alpha}$$

$$dx = \frac{L_\alpha}{2} d\alpha \dots; \dots dm = \rho l \frac{L_\alpha^2}{2} d\alpha$$

$$\Delta V_\alpha = -L_0 V_0 f v \frac{\sin \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} (\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha)} d\alpha$$

$$a_\alpha = \frac{-2L_0^2 V_0^2 f^3 v \sin \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} (\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha)^3}$$

$$dF_{AV} = -2\rho l L_0^2 V_0^2 f v \frac{\sin^2 \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} (\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha)} d\alpha$$

$$F_{AV} = -2\rho l L_0^2 V_0^2 f v \int_0^\pi \frac{\sin^2 \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} (\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha)} d\alpha$$

$$F_{AV} = -\rho l L_0^2 V_0^2 f v \frac{\pi}{c^2 - v^2} \quad \text{and} \quad F_V = -\rho l L_0^2 V_0^2 f v \frac{\pi}{c^2 - v^2}$$

$$\Leftrightarrow \dots\dots\dots F_{AV} - F_V = 0$$

This model doesn't work.

$$\int \frac{\cos \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha} d\alpha =$$

$$= \frac{1}{4v(c^2 - v^2)} (v \sin \alpha \sqrt{4c^2 + 2v^2 \cos(2\alpha) - 2v^2} - v^2 (2\alpha + \sin(2\alpha)) + 2c^2 \text{Artg} \frac{\sqrt{2v \sin \alpha}}{\sqrt{2c^2 + v^2 \cos(2\alpha) - v^2}})$$

$$\int \frac{\sin^2 \alpha}{\sqrt{c^2 - v^2 \sin^2 \alpha} (\sqrt{c^2 - v^2 \sin^2 \alpha} - v \cos \alpha)} d\alpha =$$

$$= \frac{1}{4v^5 - 4c^2 v^3} (v^2 (\sin \alpha \sqrt{4c^2 + 2v^2 \cos(2\alpha) - 2v^2} + v (\sin(2\alpha) - 2\alpha)) - 2c^2 v \text{Artg} \frac{\sqrt{2v \sin \alpha}}{\sqrt{2c^2 + v^2 \cos(2\alpha) - v^2}})$$

Energies of the waves

$$E_Y = hf / 2$$

The photons don't move at the light speed constant:

$$f = 5 \times 10^{14} \text{ Hz} \dots\dots; : \dots\dots c = 2.9979241644 \times 10^8 \text{ m/s}$$

The usual value of the light speed constant is very wrong. Higher than the correct one.

$$w = \sqrt{c^2 - S f^2} = c - \Delta w \dots\dots; \dots\dots x = \frac{c}{f} = 6 \times 10^{-7} \text{ m}$$

$$\Delta w = \frac{S f^2}{2c} = 7.9726 \times 10^{-14} \text{ m/s}$$

So, the photons have mass, any mass:

$$m = \frac{hf}{c^2} = 3.686 \times 10^{-36} \text{ kg}$$

The photons are not quantized, they have a continuous spectrum of energies and masses. There is not one photon.

$$E_Y = hf / 2 \dots\dots \text{for} \dots\dots f \in [0, +\infty[$$

$$B = \frac{4\pi \cdot qm}{x^2} = 7.22 \times 10^{-2} \text{ m/s} \dots\dots; \dots\dots E = \frac{\pi \cdot qe}{\alpha \epsilon_0 x^2} = 2.164 \times 10^7 \text{ m}^2 / \text{s}^2$$

$$H = \frac{B}{\mu_0} = 5.744 \times 10^4 \text{ A/m} \dots\dots; \dots\dots V_E = \epsilon_0 E = 1.916 \times 10^{-4} \text{ Volt}$$

$$E_Y = 1.034 \text{ eV}$$

Mechanical wave energy:

$$E_Y = \frac{1}{2} A^2 m \cdot 4\pi^2 f^2 \dots\dots \Leftrightarrow \dots\dots A = \frac{x}{2\pi} = R$$

Magnetic wave energy:

$$E_Y = \frac{1}{2} B^2 \frac{\alpha \cdot x^3}{2\pi^2 \mu_0}$$

Electric wave energy:

$$E_Y = \frac{1}{2} E^2 \frac{\epsilon_0 \alpha \cdot x^3}{2\pi^2}$$

The electromagnetic waves are at the same time electric, magnetic and mechanical.

Amplitudes:

$$A = \frac{x}{2\pi} = R = 9.55 \times 10^{-8} m$$

$$B = 7.22 \times 10^{-2} m/s \dots; \dots \dots E = 2.164 \times 10^7 m^2 / s^2$$

Volume of the energy of a photon:

$$V_0 = \frac{\alpha}{2\pi^2} x^3 = 7.953 \times 10^{-23} m^3 \dots; \dots x = \text{Compton wavelength}$$

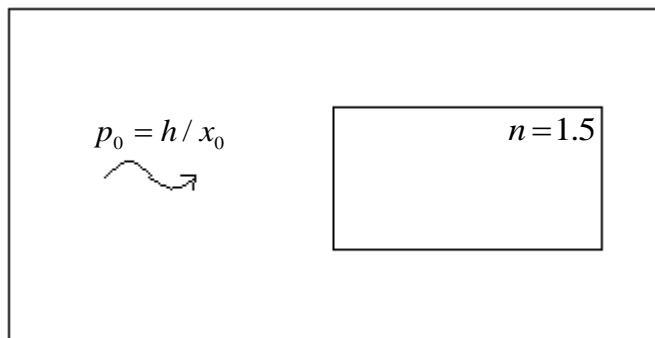
$$\alpha = 1/\sqrt{137^2 + \pi^2} \dots \dots \dots \text{Fine structure constant}$$

$$V_0 = 4\pi \cdot R^2 (\alpha \cdot R)$$

Another attraction mechanism of the force

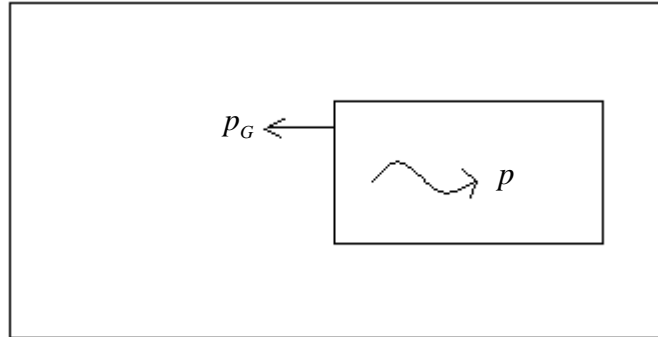
We have a photon and a glass.

The total momentum is



$$p_T = p_0 \dots \dots \dots x_0 = 6 \times 10^{-7} \text{ m} \dots \dots \Leftrightarrow \dots \dots p_0 = 1.1 \times 10^{-27} \text{ kg.m / s}$$

The same system with the photon inside the glass



$$p_T = p - p_G = p_0 \dots \dots \Leftrightarrow \dots \dots p_G = \frac{h}{\sqrt{S}} \sqrt{n^2 - 1} - \frac{h}{x_0}$$

$$\sqrt{S} = 1.38 \times 10^{-17} \text{ m} \dots \dots \Leftrightarrow \dots \dots p_G = 5.36 \times 10^{-17} \text{ kg.m / s}$$

$$p_G \approx p$$

This is a visible photon but the true photons are longitudinal.
The glass is attracted to the photon source.

There are no mysteries in the universe. What exists is a lot of ignorance.

Any particle or wave has always a precise state every time. There are no superposition of states.

Quantum entanglement is just the normal and classical entanglement. Nonlocality is just speeds much higher than light speed. Causality is never violated, it's impossible to violate the causality.

The quantum computer is an ilusion.

Quantum mechanics is just an approximation to the correct theory. Quantum mechanics can't do exact calculations. Without classical physics, quantum mechanics doesn't work.

A particle is a particle, a wave is a wave. But a particle is a rotating wave.

An electron rotates over its magnetic field. A neutrino rotates over its electric field.

A wave can transform to a particle and a particle can transform to a wave.

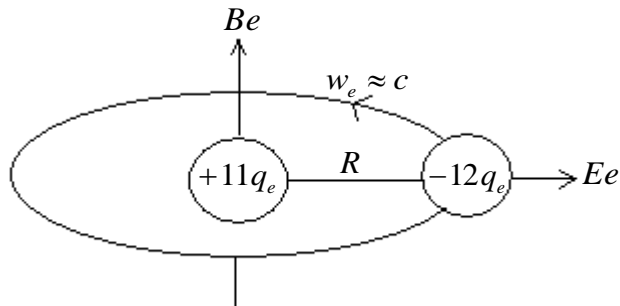
The spin is generated by a really rotation with an associated precession.

Zitterbewegung (trembling motion)

$$v = c \dots \dots \dots \dots f_e = 1.2356 \times 10^{20} \text{ Hz} \dots \dots \dots \text{electron..Compton..frequency}$$

$$\omega = \frac{2\pi \cdot m_e c^2}{h} = 2\pi \cdot f_e = 7.76 \times 10^{20} \text{ Hz}$$

The electron is a dipole. The electric charge varies with the velocity



$$w_e = c - \Delta w_e \dots, \dots \Delta w_e = \frac{S f_e^2}{2c} = 4.87 \times 10^{-3} \text{ m/s}$$

$$x_e = 2\pi \cdot R = 2.4 \times 10^{-12} \text{ m}$$

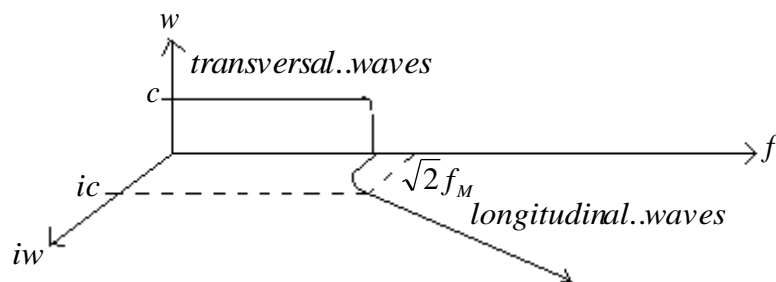
The electron is a rotating wave. The electric charge changes with the speed.

$$11.2 \times 12.2 = 1/\alpha$$

$$Be = \frac{4\pi \cdot qm}{x_e^2} = 4.4 \times 10^9 \text{ T..or..m/s} \dots, \dots Ee = \frac{\pi \cdot qe}{\alpha \epsilon_0 x_e^2} = cBe = 1.3 \times 10^{18} \text{ V/m}$$

X rays speed in glass and water

$$w = \sqrt{c^2 - S f^2} \dots, \dots f_M = \frac{c}{\sqrt{S}} = 2 \times 10^{25} \text{ Hz} \dots \Leftrightarrow \dots w = 0$$



Speed of the waves with frequency in vacuum at earth surface.

$$\sqrt{Sf^2 - c^2} > c \dots \Leftrightarrow \dots f > \sqrt{2} \frac{c}{\sqrt{S}} \approx 3 \times 10^{25} \text{ Hz}$$

$$f_0 = 3 \times 10^{17} \text{ Hz} \dots \Leftrightarrow \dots f = \frac{c}{\sqrt{S}} \sqrt{\frac{1}{n^2} + 1} > \sqrt{2} \frac{c}{\sqrt{S}}$$

$$\Leftrightarrow \dots \frac{1}{n^2} + 1 > 2 \dots \Leftrightarrow \dots n < 1$$

So, x rays that are transversal waves become longitudinal inside the glass.

Water data

$$f_0 = 7.254 \times 10^{18} \text{ Hz} \dots \Leftrightarrow \dots n = 0.99999974$$

$$f \approx \sqrt{2} \frac{c}{\sqrt{S}} \approx 3.1 \times 10^{25} \text{ Hz}$$

As everyone knows that waves can have phase and group speeds faster than light, the professional physicists invented the information speed slower than light but no one explains what speed is that. Einstein must be correct by force.

Proton spin crisis

The protons are made of vacuons.

But vacuons have no mass so, they have no spin. They rotate but have no spin.

$$m = 0 \dots \Leftrightarrow \dots \frac{m}{2} cR = 0$$

Inside the protons, the vacuons form 3 dipoles with mass

$$m = \frac{\epsilon_0^2}{\mu_0^2 c^2} = 5.5 \times 10^{-28} \text{ kg}$$

$$spin = 3 \times \frac{5.5 \times 10^{-28}}{2} c \frac{1.321 \times 10^{-15}}{2\pi} = \frac{h}{4\pi}$$

So, the spin of the proton is due to the rotation of the dipoles.

Our variable light speed proof

For the energy 80 GeV the fine structure constant is $\alpha \approx \frac{1}{128}$

$$E = mc^2 = 80\text{GeV} \dots \Rightarrow \dots \alpha \approx \frac{1}{128}$$

$$m = \frac{E}{c^2} = \frac{hf}{c^2 - Sf^2} \dots \Leftrightarrow$$

$$\Leftrightarrow \dots SEf^2 + hc^2 f - Ec^2 = 0 \dots \Leftrightarrow$$

$$\Leftrightarrow \dots f = 1.27 \times 10^{25} \text{ Hz} \dots \Leftrightarrow$$

$$\Leftrightarrow \dots w = \sqrt{c^2 - Sf^2} = 2.42941538 \times 10^8 \text{ m/s}$$

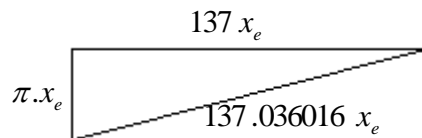
$$\alpha = \frac{q_e^2}{2\epsilon_0 hw} = \frac{1}{111.05}$$

$$\alpha = \frac{1}{\sqrt{137^2 + \pi^2}} = \frac{1}{137.036016}$$

From physics.nist.gov/constants -- $\alpha = \frac{1}{137.03599976}$

Because, in the hydrogen atom, the electron orbit is double. The two orbits distance is $\pi \cdot x_e \dots x_e$ – electron Compton wavelength. The projection of the perimeter of one orbit is $137 x_e$. With this value of the orbits ($137.036016 x_e$) we get a minimum of energy for the electron and the projection of the orbits must be an integer.

One orbit --



$$\frac{\alpha}{\alpha} = 1.00000012$$

We think that this value is exact but its possible that there is a very small correction. This is the finish of the mystery of the fine structure constant but no one wants to publish this result – why? The true constant is $n_\alpha = 137.036016 \dots \dots \text{not} \dots \alpha$. According quantum mechanics there are no orbits so is forbidden to say that there are double orbits.

`` the weak force is 10^{32} times stronger than gravity``

$$E = 80\text{GeV} = hf \dots\dots\dots x = \sqrt{c^2 / f^2 - S} = 7 \times 10^{-18} \text{m} \quad \text{-- W boson}$$

$$F_w = \frac{\pi \cdot q_e^2}{\epsilon_0 x^2} = 1.86 \times 10^8 \text{N}$$

The weak force is stronger than the strong force.

$$F_G = \frac{Gm^2 4\pi^2}{x^2} = 2.2 \times 10^{-24} \text{N} \dots\dots\dots m \approx 2 \times 10^{-25} \text{kg}$$

$$\Leftrightarrow \dots\dots \frac{F_w}{F_G} = 8.6 \times 10^{31}$$

All forces are electric.

Strong force

$$F_s = \frac{\pi \cdot q_e^2}{\epsilon_0 x_p^2} = 5.22 \times 10^3 \text{N}$$

The fine structure constant is not the coupling constant of the electric force. It appears in some calculations because of other reasons. The electric charge varies with the relative speed.

Electric force

$$F_E = \frac{\pi \cdot q_e^2}{\epsilon_0 x_e^2} = 1.55 \times 10^{-3} \text{N}$$

The calculation of the gravitational force, as the physicists do and we done also, is wrong. For subatomic particles the gravitational constant is huge and the true force is equal to the electric force. The usual G constant is only valid for macroscopic masses and distances.

Relativistic acceleration with speed

$$a = a_0 \left(1 - \frac{v^2}{c^2} \right)^{3/2}$$

With his own acceleration

$$a = a_0 \left(1 - \frac{2aR}{c^2} \right)^{3/2} \dots\dots\dots R - Distance$$

$$\Leftrightarrow \dots\dots a = a_0 \frac{-3Ra_0 \pm c^2}{c^2}$$

$$\Leftrightarrow \dots\dots a = a_0 \left(1 - \frac{3Ra_0}{c^2} \right) \dots\dots or \dots\dots a = -a_0 \left(1 + \frac{3Ra_0}{c^2} \right)$$

The acceleration can change of sign.

Time dilation with acceleration

$$t = t_0 / \sqrt{1 - \frac{2aR}{c^2}}$$

$$a = 9.8ms^{-2} \dots\dots\dots t = \infty \dots\dots \Leftrightarrow$$

$$\Leftrightarrow \dots\dots 2aR = c^2 \dots\dots \Leftrightarrow \dots\dots R = 4.6 \times 10^{15} m = 0.5LY$$

Time doesn't pass if we travel a half light year with constant 1G acceleration. We must brake for another half light year.

Average speed = 0.5c m/s

Time is a distance per unit of speed.

Time is absolute or relative as we want.

We can make clocks absolute or relative and the relative clocks can be relative with different effects or units.

Is not time that slows or speedup. What varies is the frequency of the clocks.

Lorentz equations give the Doppler effect for transversal waves, nothing more.

Lorentz equations are valid, as is very simple to test, for water surface waves and all other transversal waves.

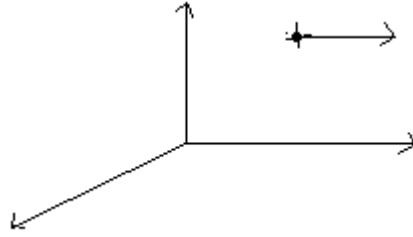
Lorentz equations has nothing to do with space and time, they work with wavelengths and periods.

Special and general relativity are all wrong. Spacetime doesn't exist.

$$c^2 t^2 - x^2 = S \dots\dots\dots \sqrt{S} = \frac{q_e \mu_0 \alpha}{12 \epsilon_0} = 1.38 \times 10^{-17} m$$

$$\sqrt{S} = neutrino..Compton..wavelength$$

Light doesn't travel at light speed.



A point of space is not well defined by space and time.

Time gives a static information.

To well define a point of space we must use space and speed and now we know when the point is at any time.

Everything that exists is made of distance and speed, displacement and velocity.

$$dE = c^2 dm$$

Is this formula correct?

$$E = \frac{1}{2} mv^2 \dots\dots\dots dE = mv dv \quad \text{or}$$

$$dE = F dx = m \frac{dv}{dt} dx = mv dv$$

$$\Leftrightarrow \dots\dots dE = mv dv \dots (A)$$

$$m = \frac{m_0}{\sqrt{1 - v^2 / c^2}} \dots\dots \Leftrightarrow \dots\dots dm = \frac{m_0}{\sqrt{1 - v^2 / c^2}} \frac{v}{c^2 (1 - v^2 / c^2)} dv$$

$$\Leftrightarrow \dots\dots dm = \frac{mv dv}{c^2 - v^2} \dots\dots (B)$$

$$(A) \wedge (B)$$

$$\Leftrightarrow dE = (c^2 - v^2) dm$$

Is the old formula an approximation?

The Einstein derivation is a swindle.

