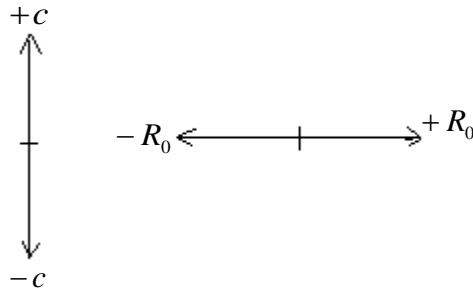


The nothing and the existence

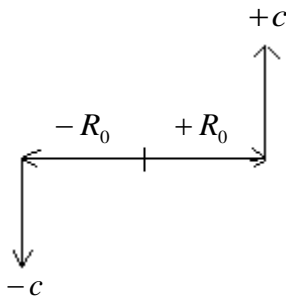
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The nothing



Everything is made of only two things, velocity and displacement.
 The existence is eternal, with no beginning and no end, because the nothing is unstable.

The existence – the vacuon



$$c = 3 \times 10^8 \text{ m/s} \dots \dots \dots R_0 = \frac{x_0}{2\pi} = 6.37 \times 10^{-16} \text{ m}$$

Energy

$$E_0 = \frac{h.c}{x_0} = \frac{\varepsilon_0^2}{\mu_0^2} = 310 \text{ MeV}$$

Velocity defines displacement and displacement defines velocity.

The Bigbang never happens because our universe is not expanding, the universe is rotating and the redshift we see is due to the transversal Doppler effect.

Locally we are rotating at light speed and we are living at the surface of our local universe that is a black hole.

There are a lot of proofs that we are rotating. They are censoring the truth because if so Einstein is totally wrong. Our universe has an axis of rotation and a center. We are at a distance from the center equal to $1.3 \times 10^{26} \text{ m}$.

Why is there some thing and not nothing?

Because the nothing can't admit it self. If the nothing exists the nothing can't exist.

The existence of the nothing is a contradiction so, the existence always exist with no beginning and no end. The existence is made of vectors velocity and displacement. The velocity defines the displacement and the displacement defines velocity.

Everything is made of speed and space. Time is a derived unit and not a dimension.

$$V \leftrightarrow \Delta L \dots\dots \text{and} \dots\dots L \leftrightarrow \Delta V$$

Speed and distance give existence to one another.

Time is not a thing. We can't travel in time as we can't travel in energy or electric charge. But we can go to the past and the future, not physically, by using memories, we do that all the time.

$$\alpha \approx \frac{\epsilon_0}{500 \cdot x_e} \text{ -- Fine structure constant approximation.}$$

Wave – particle duality

A particle is a particle and a wave is a wave but, particles can change to waves and waves can change to particles.

A particle is a rotating wave over it magnetic field or over it electric field.

The transformation of a wave to a particle is the known phenomenon of breaking wave.

There is a fundamental difference of behavior between waves and particles that can be used to prove precisely if the thing is a wave or a particle. The speed of a wave (any wave, not only light) is independent of the speed of the emitter. The speed of a wave in a medium is constant for that medium. The speed of a particle, like the electron or the neutrino, sums to the speed of the emitter. The particles moving in a medium have variable speeds. But with the correct conditions they can change from one thing to another.

We can accelerate particles but not waves.

Light speed has no mysteries.

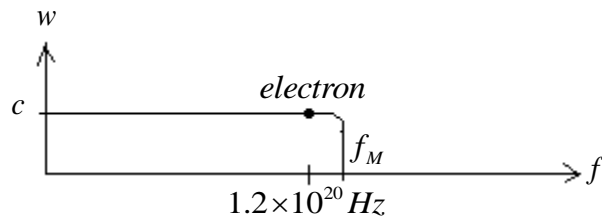
The macroscopic neutral matter can overtake light speed.

Electromagnetic waves speed in vacuum at earth surface

$$w = \sqrt{c^2 - Sf^2} \dots\dots, \dots\dots S = 1.9 \times 10^{-34} m^2$$

$$c = \frac{1}{\sqrt{\epsilon_0 \mu_0}} \dots\dots, \dots\dots \sqrt{S} = \frac{q_e \mu_0 \alpha}{12 \cdot \epsilon_0} \dots\dots, \dots\dots f_M = \frac{c}{\sqrt{S}} = 2 \times 10^{25} Hz$$

$$\sqrt{2} h f_M = 126.8 GeV - Graviton..(Higgs)$$



In the extragalactic vacuum with only the gravitational acceleration of the universe

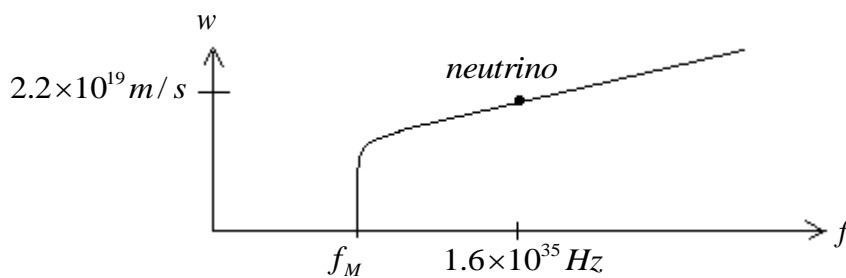
$$w = \sqrt{c^2 - S_0 f^2} \dots \dots \dots S_0 = S \frac{g_U^2}{9.8^2} = 9.5 \times 10^{-55} m^2$$

$$f_{M0} = \frac{c}{\sqrt{S_0}} = 3.1 \times 10^{35} Hz$$

$$hf_{M0} = 1.3 \times 10^{21} eV$$

For $f > f_M \dots \dots \Leftrightarrow \dots$ Longitudinal waves with constant wavelength $i\sqrt{S}$

$$w = \sqrt{S} f$$



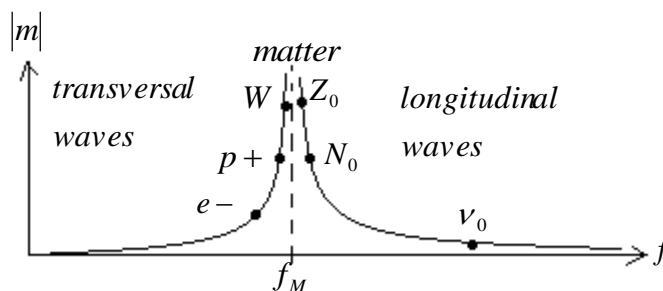
f_M Matter frequency

Our universe is made of two worlds – our world and the world of the spirits, our transversal electromagnetic waves world and the longitudinal waves world.

We live in both and in the spirits world we are immortal.

Our existence doesn't need a body.

Mass of all that exists
$$m = \frac{h.f}{c^2 - S.f^2}$$



Both worlds are supported by matter.
The spirits live in planets that orbit stellar black holes. They are made of neutrinos and radiate longitudinal waves.

There are 6×10^{23} universes like ours. Our universe is rotating and the axis of rotation is at a distance 10^{26} meters.

Hydrogen intensities

They say that classical physics can't and quantum mechanics can – calculate hydrogen intensities.

After studying tens of quantum mechanics courses we never saw a unique calculation of them.

So, lets show that classical physics can calculate the exact intensities

Intensity and power radiated:

$$I = \frac{P_w}{4\pi R^2} ; \quad P_w = \frac{q_e^2 a^2}{6\pi\epsilon_0 c^3} ; \quad R = 1\text{m}$$

Acceleration, speed and period of the electron:

$$a^2 = \left(\frac{\Delta v}{\Delta t} \right)^2 ; \quad v = \frac{\alpha \cdot c}{n} ; \quad t = \frac{n^2 x_e}{\alpha^2 c}$$

$$\Delta v = \alpha \cdot c \left(\frac{1}{n_1} - \frac{1}{n_2} \right) ; \quad \Delta t = \frac{x_e}{\alpha^2 c} (n_1^2 - n_2^2)$$

$$\Leftrightarrow a^2 = \frac{\alpha^6 c^4}{x_e^2} \frac{1}{(n_1 + n_2)^2 n_1^2 n_2^2}$$

$$\Leftrightarrow I = \frac{q_e^2 \alpha^6 c}{24\pi^2 \epsilon_0 x_e^2} \frac{1}{(n_1 + n_2)^2 n_1^2 n_2^2}$$

q_e -- Electron charge; ϵ_0 -- Vacuum permittivity; c – Light speed ; α -- Fine structure constant;

x_e -- Electron Compton wavelength;

Relative intensity:
$$I_R = \frac{1.38 \times 10^5}{(n_1 + n_2)^2 n_1^2 n_2^2}$$

<u>n 1</u>	<u>n2</u>	<u>I</u>	<u>Ir</u>
9	2	5	3.5
8	2	6	5.4
7	2	8	8.7
6	2	15	15.0
5	2	30	28.2
4	2	80	60.0
3	2	150	153.3

Exact intensities with distance

$$I_D = \frac{q_e^2 \alpha^6 c}{24\pi^2 \epsilon_0 x_e^2} \frac{1}{D^2} \frac{1}{(n_1 + n_2)^2 n_1^2 n_2^2} = 9.4 \times 10^{-11} \frac{1}{D^2 (n_1 + n_2)^2 n_1^2 n_2^2}$$

$$D = 0.1\text{m} \quad \Leftrightarrow \dots\dots\dots I_D = \frac{9.4 \times 10^{-9}}{(n_1 + n_2)^2 n_1^2 n_2^2}$$

For $n_1 = 6..and..n_2 = 2\dots\dots \Leftrightarrow \dots\dots\dots I_D = 10^{-12} \text{W} / \text{m}^2$

Do any one ever saw the intensities calculations?

The two worlds:

Our universe is made of two worlds.

Our world with transversal electromagnetic waves here we have a body and the world of the spirits or longitudinal electromagnetic waves here we live after the body dead.

Like stars shine in our world, in the spirits world there shines stellar black holes that are made of neutrinos, a longitudinal particle – the magnetic monopole.

Like the spirits come from dead bodies, black holes come from dead stars.
 In the world of the spirits we are immortal like all spirits.

Maximum magnetic field of a magnetar

$$v = \frac{h}{q_e S} = 2.16 \times 10^{19} \text{ m/s} - \text{wave..speed..of..the..neutrino}$$

$$B = \alpha^3 \frac{v}{4} = 2.1 \times 10^{12} \text{ T}$$

Stellar black hole

$$v = c \dots \Leftrightarrow \dots B = 29.1 \text{ T}$$

$$B = \frac{\mu_0 Q_e c}{4\pi.G^{-2/3}} \dots \Leftrightarrow \dots Q_e = 6 \times 10^6 \text{ C}$$

$$Q_m = Q_e \sqrt{\frac{\mu_0}{\epsilon_0}} = 2.3 \times 10^9 \text{ Weber}$$

$$E = \frac{Q_m c}{4\pi.G^{-2/3}} = Bc = 8.7 \times 10^9 \text{ V/m}$$

$$Q_m = 2.2 \times 10^9 \text{ Weber}$$

Polar jets voltage

$$V_E = EG^{-1/3} = 2.1 \times 10^{13} \text{ Volt}$$

Maybe our sun will turn to be a black hole and the earth will be populated by spirits.

The aliens smile a lot with our physics.

Barnett effect

The formula of the Barnett effect in the Wikipedia is totally wrong and the units are also wrong.

Correct formula:

$$B = \omega / \gamma \dots \text{and} \dots \gamma = \frac{Q_e}{2m}$$

$$\Leftrightarrow \dots B = 2\pi \cdot f \frac{2m}{Q_e} \dots \text{and} \dots m = \frac{Q_e k_B \hbar}{x_p}$$

$$\Leftrightarrow \dots B = 4\pi \cdot f \frac{k_B \hbar}{x_p} \dots : \dots x_p = \text{proton..Compton..wavelength}$$

$$k_B \hbar = k_B \left(1 - \frac{\pi^3 \alpha^2}{2} \right) - \text{corrected..Boltzmann.constant};$$

$$\Leftrightarrow \dots B = 1.3 \times 10^{-7} f$$

A magnetic field (induction) is a speed.

Rotating superconductor magnetic field:

$$B = -\frac{m_e}{q_e} 4\pi \cdot f \dots \Leftrightarrow$$

$$\Leftrightarrow \dots B = -7.145 \times 10^{-11} f ; \quad f - \text{frequency.of.rotation}$$

$$\Leftrightarrow \dots B = -4\pi \frac{k_B \hbar}{x_e} f \dots ; \dots x_e - \text{electron..Compton..wavelength}$$

The units of the Boltzmann constant are square meter.

The electric capacitance and the entropy are areas. Entropy doesn't exist.

Gravitational waves

Gravitational waves are waves of acceleration or force. They are not true waves, they move with the speed of the gravitational force and are only variations of that force.

The speed of the gravitational waves is variable and much more fast than light.

The gravitational waves detectors that exists don't work – they are spending money for nothing. If a wave change the length of the arms of the detector it also change the length of the laser ray, its evident that they don't work, even the waves do what they say.

Gravitational waves must be detected with accelerometers. The proof is that we have a gravitational wave detector in our head.

We have a true sixth sense, our system of equilibrium is composed by two 3D accelerometers – we can detect variations of acceleration and we can know from where they come, the position of the emitter.

People from ESA, if they spent any money in the laser interferometer space antenna, they are totally mad.
 It's easy to generate and detect gravitational waves in a laboratory.
 Human stupidity has no limits.

The unexistence of antimatter is a proof that matter was never created and that there's no Higgs field.
 Matter exists forever as all the rest. The particles don't borne without mass.
 Almost all the matter in the universe is quantized in protons and neutrons. They are made of vacuons with no mass.
The mass is an electric dipole mass.
 Creationism theories are all wrong.
 The mass of the electron is a vector at 90 degrees to the spin vector and it's rotating at almost light speed.
 The existence of mass prove that the standard model is wrong and that the parity and time symmetries don't exist.

Muonic hydrogen

The standard model calculates a wrong radius of the muonic hydrogen.
 Classical physics calculates the correct radius:

$$m = 1.8843 \times 10^{-28} \text{ kg}$$

$$mcx = h \dots \Leftrightarrow \dots x = 1.173 \times 10^{-14} \text{ m}$$

$$R = \frac{137 \cdot x}{2\pi} = 2.56 \times 10^{-13} \text{ m}$$

The fine structure constant is universal: $\alpha = 1/\sqrt{137^2 + \pi^2}$

The ecliptic alignment of the cosmic microwave background anisotropies is a proof that the universe has an axe of rotation.

Next:

Radioactive decay rate variation trigered by the sun neutrinos.

Hydrodynamic droplets: quantum mechanics explained with an easier version of the pilot-wave theory.

There are no mysteries in the universe.

The neutrino is the magnetic monopole with charge:

$$q_m = \frac{h}{2q_e} = \frac{ck_B}{2} \left(1 - \frac{\pi^3 \alpha^2}{2} \right) = 2 \times 10^{-15} \text{ Weber}$$

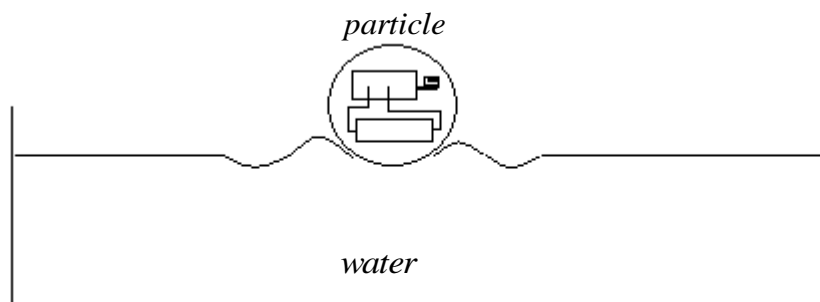
q_m – magnetic charge or magnetic flux quantum, h – Planck constant;

q_e – electron charge; c – light speed; k_B – Boltzmann constant; $\alpha = 1/\sqrt{137^2 + \pi^2}$

Neutrinos come from the sun in Cooper-pairs, because the vacuum and the air are magnetic superconductors or electric insulators.

Pilot wave hydrodynamics

The particles are emitters of longitudinal waves or virtual photons.



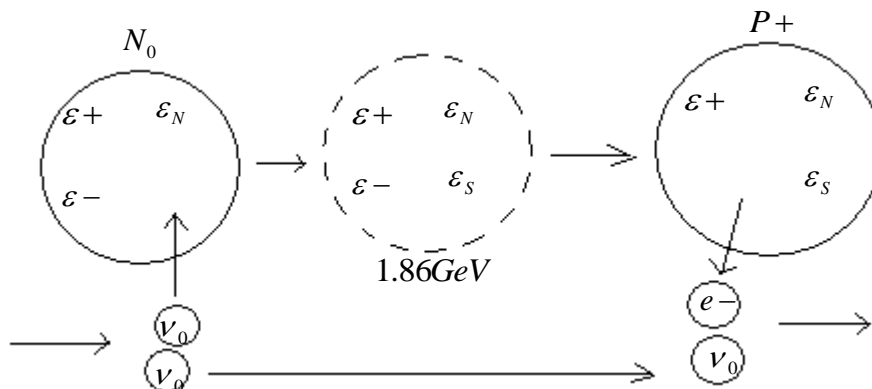
We can make an artificial particle using a sphere with a vibrating motor and a battery (the vibrating motor of a cellphone).

As the sphere vibrates it generates waves on the water around the particle – a pilot wave that will guide the particle.

After the particle emits a wave it became a different frame from the particle frame.

The pilot waves generate and transmit the forces, the only one the electric force.

Free neutron decay:



Number of electrons from the sun and at earth surface:

$$n_e = 6.2 \times 10^{18} m^{-2} s^{-1} = \frac{1}{q_e}$$

Number of neutrinos from the sun:

$$n = \frac{1}{q_m} = 5 \times 10^{14} m^{-2} s^{-1}$$

Neutron decay time and area:

$$\Delta t = 900 s \dots\dots\dots A = 1.4 \times 10^{-31} m^2$$

Electrical resistance at earth surface:

$$R_E = 4 \times 10^{13} \Omega = \frac{n_v q_m}{n_e q_e} \dots\dots\dots \Leftrightarrow$$

$$\Leftrightarrow \dots\dots\dots n_v = 1.9 \times 10^{28} m^{-2} s^{-1} - \text{number..of..neutrinos..at..the..earth..surface}$$

$$1.9 \times 10^{28} \times 900 \times 1.4 \times 10^{-31} = 2.4$$

The neutron catches two neutrinos in 15 minutes so it decays.

Spin:

$$mcR = \frac{h}{2\pi} = m2\pi \cdot fR^2$$

$$f = Spin \left(\frac{h}{4\pi^2 mR^2} \right) = Spin \left(\frac{mc^2}{h} \right) = Spin \cdot f_0$$

The spin of the fundamental particles is a true rotation at almost light speed.

$$Spin = \frac{1}{2} \dots\dots\dots \Leftrightarrow \dots\dots\dots f = \frac{1}{2} f_0 - \text{fermion}$$

$$Spin = 1 \dots\dots\dots \Leftrightarrow \dots\dots\dots f = f_0 - \text{boson}$$

$$Spin = 2 \dots\dots\dots \Leftrightarrow \dots\dots\dots f = 2f_0 - \text{graviton}$$

The particles have spin $\frac{1}{2}$
 The waves have spin 1
 The graviton is composed of two particles.

The electron and the neutrino have double orbits:



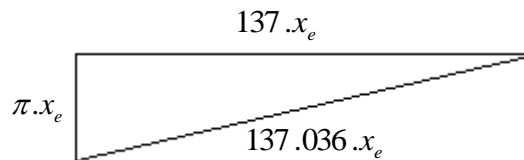
So, the frequency of rotation is half the calculated frequency.

The photons have single orbits.

The graviton is composed of two particles so the frequency is twice because the particles have the same Compton frequency: the matter frequency.

If in an electromagnetic wave the electric and magnetic fields are in phase, where goes the energy when the two fields are equal to zero?

The orbit of the electron in the hydrogen atom is also double because the perimeter of the orbit must be composed by an integer number of wavelengths but to reach a minimum of energy the perimeter is not an integer number of wavelengths:



The horizontal projection has an integer number of Compton wavelengths and the total perimeter gives a minimum of energy.

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

The total perimeter is: $2 \times 137.036 \cdot x_e$

The two orbits are apart $\pi \cdot x_e$

Bohr radius: $R = \frac{137.036 \cdot x_e}{2\pi}$; $x_e = 2.42631 \times 10^{-12} m$

Spin ice magnetic charge:

$$5\mu_B / 10^{-10} = 4.6 \times 10^{-13} = \frac{Q_m}{\mu_0}$$

$$\Leftrightarrow \dots\dots Q_m = 5.82 \times 10^{-19} \text{ Weber} ; \quad \frac{Q_m}{q_e} = \frac{\epsilon_0}{x_e}$$

If we detect the magnetic flux quantum are we not detecting the magnetic charge?

$$q_m = B_e \pi R_e^2 \dots\dots \Leftrightarrow \dots\dots B_e = \frac{4\pi \cdot q_m}{x_e^2} = 4.4 \times 10^9 T$$

$$B = \alpha^3 \frac{c}{4} = 29.1 T = \frac{\mu_0 Q_e f}{2G^{-1/3}}$$

$$f = \frac{c}{2\pi \cdot G^{-1/3}} \dots\dots \Leftrightarrow \dots\dots B = \frac{\mu_0 Q_e c}{4\pi \cdot G^{-2/3}}$$

$$\frac{Q_m}{Q_e} = \sqrt{\frac{\mu_0}{\epsilon_0}} \dots\dots \Leftrightarrow \dots\dots Q_m = 2.2 \times 10^9 \text{ Weber}$$

$$Q_m = B 4\pi \cdot G^{-2/3} = 2.2 \times 10^9 \text{ Weber}$$

$$Q_m = \mu_0 c Q_e$$

$$q_m = \mu_0 c q_e / (4\alpha) \dots\dots \Leftrightarrow \dots\dots (4q_m) = \mu_0 c (137 q_e)$$

$$R_{E0} = \frac{4q_m}{137 q_e} = 376.83 \Omega$$

Magnetic field formula from all macro natural objects: planets, moons, stars, black holes, magnetars, neutron stars, etc.

$$B = \alpha^3 \frac{v}{4} \dots\dots (\text{SI units})$$

α – Fine structure constant; v – speed of rotation.

Electric charge (values for the earth)

$$Q_e = \frac{\alpha^3}{\mu_0} \pi R^2 = 0.97 R^2 = 4 \times 10^{13} C$$

Capacitance and voltage:

$$C_E = \epsilon R \dots \dots \dots ; \dots \dots V_E = \frac{Q_e}{\epsilon R}$$

$$\epsilon = \frac{Q_e}{4\pi \cdot R^2 E} = 5.15 \times 10^{-4} m \dots \dots \dots ; \dots \dots E = 150V / m$$

$$V_E = 1.2 \times 10^{10} Volt = 4\pi \cdot ER$$

$$w = \frac{1}{\sqrt{\epsilon \mu_0}} = 4 \times 10^4 m / s \dots \dots \dots ; \dots \dots v = \frac{2\pi D_{ES}}{365} = 3 \times 10^4 m / s$$

Quantum entanglement doesn't exist.

It's only a confusion. All things in our universe have a precise state all the time even if observed or not.

So, what exists is a classical entanglement.

All quantum mechanics mysteries are errors.

The existence is classical and naïve.

But all things are connected by longitudinal waves with speed almost infinite.

Light speed it's a snail speed.

Gravitational entanglement:

$$V = 7.5 \times 10^{20} \sqrt{m} \dots \dots \dots ; \dots \dots m - mass$$

Speed to the center of the universe:

$$m = 1.75 \times 10^{53} kg \dots \dots \dots \Leftrightarrow \dots \dots V = 3.1 \times 10^{47} m / s$$

Delay time to the center of the universe:

$$R_U = 1.3 \times 10^{26} m \dots \dots \dots \Leftrightarrow \dots \dots t_1 = \frac{R_U}{V} = 4.1 \times 10^{-22} s$$

Delay to the center of the Milky way:

$$m = 1.6 \times 10^{42} \text{ kg} \dots\dots\dots ; \dots\dots\dots D = 2.5 \times 10^{20} \text{ m}$$

$$t_2 = 2.6 \times 10^{-22} \text{ s} \dots\dots\dots . \Leftrightarrow \dots\dots\dots t_2 \approx t_1$$

The time delay is a constant. All the universe is entangled with us at the present. We feel all the universe at the same time.

Mass of the Higgs – the graviton:

$$E_Y = \frac{6\sqrt{2}q_e}{\mu_0\alpha^2} = 2.0316 \times 10^{-8} \text{ J} = 126.802 \text{ GeV}$$

Compton frequency:

$$f = \frac{12 \cdot c \cdot \epsilon_0}{q_e \mu_0 \alpha} = 2.16803 \times 10^{25} \text{ Hz}$$

Some laws of the universe:

$\frac{M}{R^2} = 2\pi^2$ -- The mass of a macroscopic object under its distance to us squared is equal to a constant. It is valid for the universe and for the Milky way.

$$g_U = \frac{GM}{R^2} = 2\pi^2 G = \frac{c^2}{R_U} = 1.32 \times 10^{-9} \text{ ms}^{-2}$$

$$R_U = \frac{c^2}{2\pi^2 G} = 6.8 \times 10^{25} \text{ m}$$

$$M_U = \frac{c^4}{4\pi^2 G^2} = 4.582 \times 10^{52} \text{ kg}$$

$$S_0 = S \frac{g_U^2}{9.8^2} = 3.47 \times 10^{-54} \text{ m}^2$$

$$H_0 = 67.8 = 2.2 \times 10^{-18} \text{ Hz}$$

$$f_U = \frac{c}{2\pi \cdot R_U} = 7 \times 10^{-19} \text{ Hz} \dots\dots\dots; \dots\dots\dots \frac{H_0}{f_U} = \pi$$

$$\omega_U = 2\pi \cdot f_U = 2H_0 = 4.4 \times 10^{-18} \text{ Hz}$$

$$R_U = \frac{c}{2H_0} \dots\dots\dots; \dots\dots\dots M_U = \left(\frac{\pi \cdot c}{2H_0} \right)^2 \quad ; \quad \frac{\pi \cdot c}{2H_0} = 2 \times 10^{26} \text{ Weber}$$

Gravitational constant:

$$G = \frac{cH_0}{\pi^2} = 6.682571 \times 10^{-11} \text{ m}^{-3}$$

$$g_U = 2cH_0$$

$$G = \frac{5}{6} \left(\frac{h^2}{3ck_B} \right)^{3/2} = 6.682076 \times 10^{-11} \text{ m}^{-3}$$

$$R_{SB} = G^{-1/3} = 2.4643 \times 10^3 \text{ m} \dots\dots\dots; \dots\dots\dots M_{SB} = \frac{c^2 G^{-4/3}}{2} = 1.66 \times 10^{30} \text{ kg}$$

$$G = \frac{5}{6} \left(\frac{q_e^3 c^2}{3h} \right)^{3/2} = 6.682076 \times 10^{-11} \text{ m}^{-3}$$

$$G \approx \frac{5}{6} \left(\frac{3x_p^4}{4\pi \cdot \epsilon_0 k_B} \right)^3 = 6.6925 \times 10^{-11} \text{ m}^{-3}$$

True gravitational constant:

$$F = \frac{GM^2}{R^2} = \frac{(4\pi \cdot G)M^2}{4\pi \cdot R^2} = \frac{G_0 M^2}{4\pi \cdot R^2}$$

$$G_0 = 4\pi \cdot G = 8.4 \times 10^{-10} \text{ m}^{-3} \dots\dots\dots; \dots\dots\dots G_0^{-1/3} = 1.06 \times 10^3 \text{ m}$$

The Schrodinger cat

In our universe there are no alive and dead cats at the same time.

Lets do the experiment with a man. Is the man alive and dead at the same time?

Or the laws of physics are different for cats and humans?

Why the experiment is a thought experiment? Is it not possible to perform a real experiment, or do the physicists know all the time what will be the result?

There are no mysteries and paradoxes in our universe. All mysteries and paradoxes are errors.

In the atom of hydrogen the electron perform a very precise double orbit, not a orbital. Wavefunctions means nothing, wavefunctions don't exist.

Magnetic vector potential of the particles (electron):

$$A_e = \frac{c \cdot x_e}{4\pi} = \frac{\mu_0 I_E k_B}{x_e^2}$$

What oscillate in a wave is not a number with no units. Probability is not a thing real that oscillate.

The wavefunction is a magnetic vector potential. Probability is mathematics not physics.

Electromagnetic waves:

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

$$A = A_0 \cos(kx - \omega t) + iA_0 \sin(kx - \omega t)$$

$$A = A_0 \cdot \exp .i(kx - \omega t)$$

How can a function of probability describes totally a system?

To describe any system partially we must use always a distance and a speed, or them composition:

The maximum information with the minimum words is the magnetic vector potential or circulation and the time or frequency (L-distance; V-speed)

$$A = LV \dots\dots\dots; \dots\dots\dots t = LV^{-1}$$

Simplified Schrodinger equation for the magnetic vector potential (equivalent equation):

$$i \frac{dA}{dt} = -A_0 \frac{d^2 A}{dx^2} \dots\dots\dots ; \dots\dots\dots A_0 = \frac{c \cdot x}{4\pi} \quad ; \quad A = A_0 \cdot \exp i(kx - \omega t)$$

The magnetic vector potential has the direction of the electric current.

Complete equation:

$$i \frac{dA}{dt} = A_0 \frac{d^2 A}{dx^2} + v^2$$

We can introduce in the equation several values:

v^2 – squared...speed; .. E – electric..field; .. Bc – magnetic..field; .. V_G – gravitational..potential

All the values have squared speed units. For simplicity we are working in one dimension.

Speed of the pilot wave of the electron:

$$f = \frac{f_M^2}{f_e} = 3.8 \times 10^{30} \text{ Hz} \dots \Leftrightarrow \dots w = \sqrt{S} f = 175000 \times c$$

With this speed we can reach Alpha-Centaur in 12 minutes.

Of a visible photon:

$$f = \frac{f_M^2}{5 \times 10^{14} \text{ Hz}} = 9.4 \times 10^{35} \text{ Hz} \dots \Leftrightarrow \dots w = 4.3 \times 10^{10} \times c$$

With this velocity we can reach the center of our universe in 60 days.

The particles and waves are oscillators and emit longitudinal waves generated by precession of the Compton frequency of the particle. The relation particle longitudinal wave is very interesting.