

GRAVITY FROM ELECTRICITY

$$\text{From } Q'4\pi c^2 = G M_n (1 \text{ sec})^2 = \frac{J_G}{(1 \text{ sec})^2} M_n (1 \text{ sec})^2$$

$$\text{we obtain } Q'4\pi \sqrt{v_{\text{light}}^2} = \frac{J_G}{(1 \text{ sec})^2} M_n \quad 2)$$

See 1⁽¹⁾) in Vixra 1711.0299; Author: Piscedda Giampaolo.

$$\text{We had got } \sqrt{v_{\text{light}}} = c \left(\frac{J_{\text{supn}}}{J_G} \right)^{1/2}$$

See 2⁽²⁾) in Vixra 1771.0362; Author: Piscedda Giampaolo.

$$\text{From } 2) \text{ we obtain } \sqrt{v_{\text{light}}^2} = \frac{J_G}{(1 \text{ sec})^2} \frac{M_n}{Q'4\pi} \quad 2^{(2)}$$

In the 2⁽²⁾) the $\sqrt{v_{\text{light}}}$ is function of the relative value of a ether J_{supn} , with respect to a reference ether J_G ; therefore in the 2⁽²⁾)

must be $(M_n / Q'4\pi) = \text{constant}$. Then we deduce that in the $\sqrt{v_{\text{light}}}$ is only a function of time:

$$\sqrt{v_{\text{light}}^2} = \frac{J_G}{\left(\frac{1}{t} \text{ sec}\right)^2} \cdot \text{constant}, \quad t > 0, t \in \mathbb{R}$$

In the equation 2) (See Vixra 1771.0362; Author: Piscedda Giampaolo) if we change the value of the ether J_G , the value of mass must change and viceversa; then the volume flux 2) must be constant. In 2⁽²⁾) the $\sqrt{v_{\text{light}}}$ must vary proportionally as the ether

changes its value; because the volume flux is constant, then must change the value in of Q' , and we write the equation $1^{(2)}$ in this way:

$$[(1/t) Q'] \frac{4\pi c^2}{[(1/t) \pi c]^2} = \frac{J_G}{[(1/t) \pi c]^2} [(1/t) M_n]; t > 0, t \in \mathbb{R} \quad 1^{(2)}$$

Therefore the $1^{(2)}$ is not function of distance $r = |t|$ meters, from the point at which it is calculated the volume flux generated by particle n of mass M_n in the reference ether J_G , but the equation $1^{(2)}$ is only a function of volume density of ether $J_G = (V_G / M_G) = (x V_G / x M_G)$ and mass M_n . See formula $1^{(5)}$ in Vixra 1711.0299; Author: Piscedda Giampaolo

$$\text{Let's } M_n = 4\pi X_{\text{light}}^2 \left(\frac{M_n}{4\pi X_{\text{light}}^2} \right) = 4\pi X_{\text{light}}^2 \frac{M'_n}{(\text{meters})^2}$$

M'_n is the mass density for a unit of surface and X_{light} is any spatial distance traveled by a light ray in a certain amount of time elapsed.

If J_G increase its value, M_n must decrease its value, because the volume flux $J_G M_n$ is constant, then $|X_{\text{light}}^2|$ meters must decrease.

Let $M_n =$ neutron mass, $M_p =$ proton mass, $\Delta m = M_n - M_p$
 $m_e =$ electron mass = $9,10938356 \cdot 10^{-31}$ Kg (CODATA value)
 and $\Delta m_1 = \Delta m - m_e$.

$$\text{We can write: } \Delta m_1 = \frac{|\Delta m'_x| \text{ meters}}{\sqrt{3}} \frac{|\Delta m'_x| \text{ meters}}{\sqrt{3}} \frac{|\Delta m'_1| \text{ Kg}}{(\text{meters})^2} \quad 4)$$

$$m_h = \Delta m_1 \left(\frac{m_n}{\Delta m_1} \right) = 4\pi \left[\left(\frac{|\Delta m'_x| \text{ meters}}{\sqrt{3}} \right)^2 \frac{m_n}{\Delta m_1} \right] \frac{|\Delta m'_1| \text{ Kg}}{(\text{meters})^2} \quad 4^{(g)}$$

The $4\pi \left(\frac{|\Delta m'_x|}{\sqrt{3}} \text{ meters} \right)^2 \frac{m_h}{\Delta m_1}$ is a spherical surface of
 radius $\Delta m''_x = \frac{|\Delta m'_x|}{\sqrt{3}} \left(\frac{m_h}{\Delta m_1} \right)^{1/2} \text{ meters}$
 and volume $V_x = \frac{4}{3} \pi (\Delta m''_x)^3$ (2)

This volume is function of m_h and m_e through $\Delta m_1 = \Delta m - m_e$
 Now, we must make the distinction between the exterior and interior volume and exterior and interior ether of a particle.

The interior volume of electron is V_x , therefore the interior ether of electron is $J_e^{int} = V_x / m_e$.

In the equation (4) the mass Δm_1 is the mass that is missing; this mass for the equation (2) does not disappear completely since the smallest value is that in the ether reference J_G is $m_h \neq 0$. Therefore the volume V_x decrease until $\Delta m_1 = m_h$. We will call the ether that encircle the electron Exterior Ether.

If we assume that a particle, compared to the exterior ether J_G , have an interior ether $J_{particle}^{int} = 1 \frac{m^3}{kg}$ then in the reference ether of particle, the value of exterior ether J_G must be $\frac{1 m^3}{kg}$ while the interior ether of particle will be $\frac{1}{|J_G|} \frac{m^3}{kg}$.

So the exterior ether is $J_e^{ext} = \frac{1}{|J_e^{int}|} \frac{m^3}{kg} = \frac{|m_e|}{|V_x|} \frac{m^3}{kg}$

We obtain $J_G' = \frac{V_x}{m_h}$ and $J_G' / J_G = h$

The relative value of ether J_e^{ext} is respect to a reference ether $J_G' < J_G$, therefore the value of ether J_e^{ext} respect to ether J_G is $J_e^{ext(1)} = J_e \frac{J_G'}{J_G} = \frac{|m_e|}{|V_x|} \frac{V_x}{m_h J_G} \frac{m^3}{kg} = 1,851326 \cdot 10^{30} \frac{m^3}{kg}$

We proceed extending the 1b)

See Vixra 1711.0299; Author: Piscedda Giampaolo
to the electric force.

We know that neutron having electric charge zero and therefore
would prevent to extend the 1b) to the electric force.

The neutron consisting of 3 quarks udd.

If we extend the 1b) to the electric force, we describing the
electric force of particle n , through its mass flux, generated by
particle n in any reference ether.

Then to the mass flux $V_u J_u^{-2}$ generated of quark u in the
reference ether J_u^{-1} , we must add up the two mass flux
generated by quark d in its reference ether J_d^{-1} .

Therefore for each quark of neutron the total mass flux is the

$$\text{sum: } V_u J_u^{-2} - V_d J_d^{-2} - V_d J_d^{-1} = V_u J_u^{-1} - 2V_d J_d^{-1} \quad 5)$$

(V_u, V_d are respectively the exterior volume of quarks u, d).

From equation 2) (see Vixra 1771.0362; Author: Piscedda Giampaolo)

$$\text{we deduce } \frac{m_h}{M_n} M_n^2 J_G = m_h M_n J_G = m_h^2 J_{\text{sup}n}$$

$$\text{From which we obtain } M_n m_h^2 J_{\text{sup}n} = m_h M_n^2 J_G \quad b)$$

and from b)

$$\begin{aligned} m_h \frac{M_n}{m_h} m_h^2 J_{\text{sup}n} &= m_h (m_h^2) \left(\frac{M_n}{m_h} J_{\text{sup}n} \right) = \\ &= m_h (m_h^2 J'_{\text{sup}n}) = m_h M_n^2 J_G \end{aligned}$$

$$\text{i.e. } m_h^2 J'_{\text{sup}n} = M_n^2 J_G \quad b')$$



Experimentally we get $|F_e| = |F_p| = 2,3070775 \cdot 10^{-28}$
 (F_e and F_p are respectively the repulsion force between two electrons and two protons).

Through the value of $|F_e|$ and $|F_p|$

we get it $\frac{F_e}{m_e^2} = G_e$ and $\frac{F_p}{m_p^2} = G_p$; from which we obtain:

$$\frac{J_e^{\text{experiment}}}{m_e^2} = 2,780252295 \cdot 10^{32} \frac{m^3}{Kg}$$

$$\frac{J_p^{\text{experiment}}}{m_p^2} = 8,246442388 \cdot 10^{25} \frac{m^3}{Kg} \text{ and}$$

$$m_e^2 G_e = m_p^2 G_p, \text{ i.e. } m_e^2 J_e = m_p^2 J_p \text{ being } G = \frac{J}{(1\text{sec})^2}$$

which satisfies the equation $b^{(1)}$

Let $m_p \neq m_e$, $J_p \neq J_e$ and $m_p J_p \neq m_e J_e$

For $a^{(1)}$ we can write $m_e J_e = m_p \frac{m_p}{m_e} J_p$ from which

$$\text{we obtain } m_h \left(\frac{m_e}{m_h} J_e \right) = m_h \left(\frac{m_p}{m_h} \frac{m_p}{m_e} J_p \right) \quad b^{(2)}$$

The equation $b^{(2)}$ shows that we can always find one reference ether, such that the fluxes generated by particle e and particle p , are equal and also their mass.

Therefore $\Delta V = m_e J_e - m_p J_p$ must be function from the choice of reference ether.

As m_h is inferior limit of mass flux in the reference ether J_e , then the value of equation $b^{(2)}$ can not be smaller of $m_h \neq 0$.

The quarks also have color charge; the total color charge of particle must be zero, then each quark of neutron, through its color charge, must interact with to the color charge of the others two quarks. So, each quark of neutron, must reached up, from the others two quarks of neutron, by a flux mass of $2m_h$. Therefore to each quark of neutron we got a total mass flux $m_h + 2m_h = 3m_h$

As the neutron consisting of 3 quarks, the inferior limit of the total mass flux of neutron must be $3 \cdot (3m_h) = 9m_h$. Also to the proton, we got a inferior limit of the total mass flux equal to $9m_h$.

So to obtain the total mass flux of Hydrogen (electric charge zero), we must add the flux mass of electron to the total mass flux of proton.

Because the electron haven't color charge, the inferior limit of mass flux of electron in the Hydrogen, must be m_h .

Therefore the inferior limit of the total mass flux of Hydrogen, must be $10m_h$.

Because $m_n = \sqrt{x} J_G^{1-1}$ (V_x interior volume of electron) for the equation $1^{(2)}_2$, every proton will be always associated with one electron. In fact, for $1^{(4)}_2$, the mass flux is not function of distance of volume V_x , from the point at which it is calculated.

As the inferior limit of mass flux of Hydrogen is $10m_h$ we must multiply the ether $|J_e^{ext}| = \frac{m^3}{Kg}$ by 10; because the inferior limit in the reference ether J_G do not is $10m_h$ but m_h , then we got:

$$10 |J_e^{ext}| \frac{m^3}{Kg} = |J_e^{ext}| \frac{m^3}{Kg} = 1,851326 \cdot 10^{31} \frac{m^3}{Kg}$$

Now, we introduce a cartesian axes system Oxyz.

We choose as origin O_f , any point of the surface of particle n .

Let $b = \frac{1}{4} \pi X_{\text{light}}^2 = \text{constant}$ and $\overline{J_G} = \text{constant}$.

Let O' be the centre of particle n ; then, in the point X_{r_1} at distance r_1 to O , along the direction of $\overline{OO'}$, we have

$$\frac{M_n \overline{J_G}}{r_1} = \frac{a_G}{r_1} b \quad \text{i.e.} \quad M'_n \overline{J_G} = a'_G b;$$

then in X_r we got $\frac{M'_n \overline{J_G}}{r - r_1} = \frac{a'_G}{r - r_1} b$

(X_r is a point of X axes at distance r from O).

In this case we call M'_n the unreal mass of M_n in X_{r_1} and a'_G is the mass flux generate in X_{r_1} from unreal mass M'_n in the reference ether $\overline{J_G}$; i.e as in X_{r_1} there were really the mass M_n .

So, if a proton P_1 is in motion to velocity v_1 , along straight line that join P_1 to another proton P_2 , then the mass or volume flux of P_1 and P_2 , increase as the distance decrease.

We suppose that the mass flux of P_1 increase of da_G ; as every proton will be always to associate with one electron, then in the electron e_1 the mass flux decrease of $-da_G$. Because also for the proton P_2 the flux of mass increase of da_G , then in the electron e_2 the mass flux must decrease of $-da_G$.

Why the mass flux in the electrons decrease of $-da_G$?

The limit inferior of mass flux for electron in Hydrogen is m_h , while for the proton is $9 m_h$; if we increase the mass flux of protons P_1 , of da_G , the flux mass of P_1 will be $9m_h + da_G$ and the mass flux of electron decrease of $-da_G$, because the mass flux of Hydrogen must be $10m_h$. Being the inferior limit of mass flux of e_1 in Hydrogen equal to m_h , the electron e_1 generate a mass flux $+da'_G$:

such as $m_h - da'_G + da_G = m_h$; we deduce that the mass flux $da_G = da'_G$ cause the repulsion between P_1 and P_2 .

Owing to decrease of distance $\overline{P_1 P_2}$, the smaller mass flux that can be generated for each one second of time elapsed, relatively to the reference ether \mathcal{J}_G , must be $da_G = m_h$.

So the mass flux generated from the system $P_1 P_2 e_2$ is $3m_h$ and that generated from the system $P_2 P_1 e_1$ is $3m_h$.

Therefore, when the distance between P_1 and P_2 decrease, will be generated a total mass flux of $6m_h$.

The decrease in the distance between two electron e_1 and e_2 would do decrease the inferior limit mass flux of the proton, from $9m_h$ to $8m_h$ and this is again absurd, because $9m_h$ is the inferior limit of proton; so we obtain again repulsion between e_1 and e_2 .

Because in the reference ether \mathcal{J}_G the limit inferior of mass flux is m_h , then we got $\mathcal{J}_e^{ext''} = \mathcal{J}_e^{ext'} \cdot 6 = (1,851326 \cdot 10^{31} \frac{m^3}{kg}) \cdot 6$

Being $\mathcal{J}_p^{experiment} / 6 = 1,374407 \cdot 10^{25} \frac{m^3}{kg} = \mathcal{J}_p^{exp'}$

$$\frac{m_p^2}{m_e^2} = 3,371456,641 \text{ for } b^{(2)}$$

$$\mathcal{J}_p^{ext} = \frac{\mathcal{J}_p^{exp'}}{m_p^2/m_e^2} = 5,491176 \cdot 10^{24} \frac{m^3}{kg} \text{ then}$$

$$\Delta \mathcal{J}_p^{ext} = \mathcal{J}_p^{exp'} - \mathcal{J}_p^{ext} = 8,25289 \cdot 10^{24} \frac{m^3}{kg}$$

I think that we have obtained $\Delta \mathcal{J}_p^{ext} \neq 0$ because we have not considered the neutrino.

If we do not consider the neutrino, it's as if we had taken for the Hydrogen a reference ether, whose volume density is equal to the volume density of neutrino. Indeed, in such a reference ether \mathcal{J}_n , the neutrino is indistinguishable from ether \mathcal{J}_n .

Then we suppose that $\mathcal{J}_n < \mathcal{J}_G$ is the reference ether of Hydrogen and therefore that we can detect the neutrino because we observe the Hydrogen from the reference ether \mathcal{J}_G .

Let $V_h = \mathcal{J}_G m_h$ be the smaller volume flux, generate in the reference ether \mathcal{J}_G through the mass m_h .

$$\Delta \mathcal{J}_p^{ext} = 8,25289 \cdot 10^{24} \frac{m^3}{Kg} \Rightarrow$$

$$\Delta \mathcal{J}_p^{int} = \frac{1}{|\Delta \mathcal{J}_p^{ext}|} \frac{m^3}{Kg} = 1,211696 \cdot 10^{-25} \frac{m^3}{Kg}$$

$\Delta \mathcal{J}_p^{int}$ is a interior volume density, while $(\Delta \mathcal{J}_p^{int})^{-1}$ is a interior mass density $(\Delta \mathcal{J}_p^{int})^{-1} = 8,25289 \cdot 10^{24} \frac{Kg}{m^3}$.

Then the upper neutrino mass in the reference ether \mathcal{J}_G is

$$(\Delta \mathcal{J}_p^{int})^{-1} V_h = 4,0608 \cdot 10^{-36} Kg \text{ i.e. } m_n = 2,278 eV/c^2.$$

Why don't I get repulsion if I approach a neutron to a proton or a electron?

The neutron in the reference ether \mathcal{J}_n appear as a Hydrogen. Therefore proton (electron) and neutron only interact through the gravitational force.

We have $\frac{\mathcal{J}_p^{exp}}{\mathcal{J}_p^{ext}} = \frac{\mathcal{J}_G}{\mathcal{J}_n} = 2,5029.$

We analyse the neutron decay in the ether reference \mathcal{J}_n .

We suppose that after neutron decay, any proton rotate from right to left along its axis of rotation. In the Oxyz cartesian axes system, we suppose that the two protons P_1 and P_2 in the x axis, have its rotation axis parallel to y axis.

Hypothesize that after neutron decay in the reference ether \mathcal{J}_n the electron go from P_1 to P_2 , then if we observe the neutron decay from proton P_2 , we note that the electron draw up to proton P_2 and also that P_2 rotate from left to right.

If instead of observe the electron from \mathcal{P}_2 , we imagine that the time elapsed from future to present, then if we observe the electron from \mathcal{P}_1 , we note that the electron drawn up to proton \mathcal{P}_1 and also that \mathcal{P}_2 rotate from left to right.

Therefore the physical phenomenon observed in \mathcal{P}_2 when the time elapsed from present to future, coincide to the physical phenomenon observed in \mathcal{P}_1 when the time elapsed from future to present. Then, while the electron draw up to proton \mathcal{P}_2 we don't have repulsion but attraction.

The upper limit of neutrino is in agreement to the Mainz Neutrino Mass Experiment

Reference: The Mainz Neutrino Experiment

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J.P. Schall, Th. Thümmler, H. Ulrich, Ch. Weinheimer

in collaboration with

O. Kazakhstan (INR Troitsk, Russia), A. Kovalik (JINR
Dubna, Russia), P. Leiderer (University of Konstanz,
Germany)

Giampaolo Pisedda



e-mail: giampaolo.pisedda@yahoo.it