

Blueshift and the Antigravitation

Let m_p be the proton mass and V_p the proton volume, then the proton is indistinguishable from the reference ether $J_p = V_p/m_p$.

Let T be a sphere of mass M_T and radius r_T , whose center coincides with the origin O of a system of Cartesian axes $Ox_1x_2x_3$.

Let $m_n \simeq m_p$ be the neutron mass and $V_n \simeq V_p$ the neutron volume, then $J_n = (V_n/m_n) \simeq J_p$; therefore $M_T = \sum_{i=1}^{2n} m_p + \sum_{i=1}^{2n} m_n \simeq \sum_{i=1}^{4n} m_p$ (the electron mass is negligible).

Then $J_p = \frac{\sum_{i=1}^{2n} V_p / \sum_{i=1}^{2n} m_p$ is the reference ether in which the sphere T is no longer distinguishable from the ether reference J_p .

The particles that make up the mass M_T of the sphere T , are very small portions of the ether J_p .

The mass of sphere T is distinguishable in the reference ether $J_k \neq J_p$; if $J_k > J_p$ such that: $|\Delta r| J_p = J_k$ a)

$$\text{then } M_T J_p = \frac{M_T}{|\Delta r|} J_p |\Delta r| = M_T' J_k \quad 1)$$

Through the 1), we have obtained the mass M_T' that should have the sphere T (keeping unchanged the number of protons and neutrons), in order not to be distinguishable from the reference ether J_k .

In the article published in Vixra: "The Proton Charge Radius of Muonic - Hydrogen" (vixra.org/abs/1711.0299), J_k (write with the wording J_c) is the reference ether of proton, with $K = J_k / (1 \text{ sec})^2$ gravitational constant.

So from the $|J_k| \neq |J_p|$ we get:
$$\frac{J_k}{(t \text{ sec})^2} = \frac{J_k}{|t|^2 (1 \text{ sec})^2} = \frac{J_p}{(1 \text{ sec})^2}$$

i.e. $J_k = J_p |t|^2$ b)

Then for a) must be $|\Delta r| = |t|^2$

Being

i) the mass M'_T of sphere T coincident with the mass M'_T of the

$$\text{ether } J_K = \sum V_p / M'_T$$

ii) $J_K / |r| = \frac{\sum V_p}{M'_T |r|}$; that is, the fraction $J_K / |r|$ is equivalent to

multiplying the mass M'_T by $|r|$.

$$\text{Then from i) and ii) and from } (M'_T / |r|) J_K = M'_T \frac{J_K}{|r|}$$

(volume flux per unit of elapsed time at distance r from O),
we deduce that for the $M'_T J_K / |r|$ we must also apply $M'_T |r| J_K$.
We call $M'_T |r|$ the ghost mass or the unreal mass, placed in x_r
at a distance r from O .

We suppose that in x_r there is a sphere G with real mass
 $M_G = M'_T |r|$ and that G is a source of electromagnetic waves.
The $M'_T |r| J_K$ should be a volume flux in x_r , but being
 M'_G and therefore also $M'_T |r|$, undistinguishable from reference
ether J_K , then the electromagnetic waves emitted by the sphere
 G , will not be subjected any gravitational redshift, induced by
the ghost mass $M'_T |r| = M'_G$.

The volume flux per unit of time elapsed, is

$$J_K M = 4\pi c^2 a' = \frac{1}{8\pi} (4\pi c^2 a) \text{ and it is } 1/(8\pi) \text{ times smaller}$$

than the volume $4\pi c^2 a$.

We can note that in the volume flux $\frac{1}{8\pi} (4\pi c^2 a) = J_K M$, the
time has disappeared; in fact, even if a is directed along the
time axis, it is expressed in meters!

See: vixra.org/abs/1711.0299

An elapsed time can no longer flow, precisely because it has
already elapsed. For this reason we can consider this interval of
time elapsed as if it were a spatial distance (one second of
time elapsed is equivalent to one meter).

The $\frac{1}{8\pi} (4\pi c^2 a)$ represents a volume in (x_2, x_3, x_4) , in
which

Q represents the measure of an interval in x_4 , which will not be represented in seconds but in meters;

(vixra.org/abs/1711.0299)

Since for every second of elapsed time, let us correspond in space (x_1, x_2, x_3) , a distance of c meters, then the measure of Q meters in space (x_1, x_2, x_3) , will be $|Q c|$ meters = $|h|$ meters.

Being $a|c| = h$ the measurement of the value of Q in space (x_1, x_2, x_3) , if the distance of the sphere G from the sphere T , in the reference ether J_K is $|r \cdot \Delta r|$ meters, then, rotating $\Delta r \in (x_1, x_2, x_3)$ of 90° towards the x_4 , we obtain the volume flux caused through the presence of the ghost mass $M'_T |r|$ in $x_{\Delta r}$ at distance $|r \cdot \Delta r|$ meters from O , i.e., will be:

$$M'_T |r| |4r| \frac{J_K}{|h|} = \frac{1}{8\pi} \left(4\pi c^2 \frac{\Delta r}{|c|} \right) = M'_T |r| J'_K, \quad J'_K = \frac{\Delta r}{|h|} J_K$$

Therefore, for the observed placed on the sphere T , the electromagnetic wave will be emitted by a reference ether $J'_K = \frac{\Delta r}{h} J_K$ and by formula $z \approx Q = \frac{MK}{\tau^2}$ will be subjected to a gravitational redshift of the value of $z \approx \frac{| \Delta r | \text{ meters}}{|c| \text{ meters}}$.

Because $M |r| J$ is equivalent to $M(J/|r|)$, then $M|r| J |r|$ is equivalent to $M (J |r|/|r|) = M J$.

In the case $(M_T/M_V) > 1$, is very small with respect to the distance R that separates the sphere V from the sphere T , we proceed as follows:

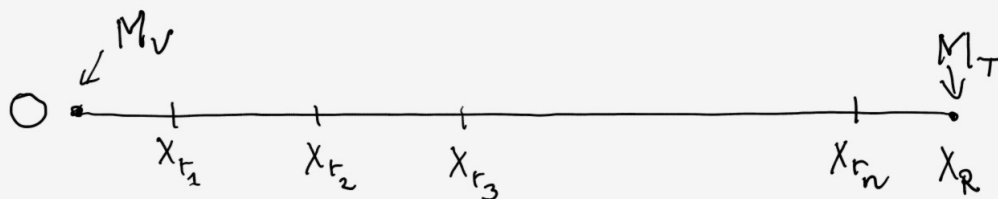
I) $M_V |r| J_K$ in x_{r_2} II) $M_V |r| J_K |r| = M_V J_K$ in x_{r_2}
 III) $M_V |r| J_K$ in x_{r_3} , and so on;

as long as the distance of x_{r_n} from x_R is less than $|r|$ meters.

Then from x_{r_n} we calculate $M_V |r| (x_R - x_{r_n}) J_K$ and $(|x_R - x_{r_n}| / c) \approx z$; for n even we will have a blueshift while for n odd we will have a redshift gravitational.

We get a blueshift if the equality between the ghost mass and the real mass is obtained when $\chi_{r_n} > \chi_R$.

In this case a BLUESHIFT can be only generated by an ANTIGRAVITATIONAL FIELD.



$$|\chi_R - \chi_{r_n}| < |r|$$

$$|\chi_{r_n} - \chi_{r_{n-1}}| = |r|$$

If we replace M_T with the Earth Mass and M_G with a galaxy mass such that $M_G = M_{\text{milk way}}$ we will find a redshift equal to the measured experimental redshift.

To verify this we can take as a galaxy reference the Sombrero Galaxy which has a mass of [800 000 000](#) of solar mass.

If instead the mass of the Milk Way is different from the mass of the Galaxy that we observed, it is necessary to equalize the volume flux of the two galaxies and then proceed as in point 1).

It is evident that if we taking as a reference planet, Jupiter instead the Earth, we will measure a different redshift.

Then we can deduce that an electromagnetic wave can be described by a wave packet.

We deduce that THE UNIVERSE DOES NOT EXPAND.

giampaolo.piscedda@yahoo.it
giampaolo.piscedda@libero.it

Giampaolo Piscedda
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