CONSTRUCTION OF SYSTEM G FORMULA

The question which arises, is: Where can be found in the equation [1], the limited options for a unique Energy which corresponds to a unique mass for Gravity Shielding?

By Aquino we have the following expression:

$$m_g = m_i - 2m_i \left\{ \sqrt{1 + \left(\frac{U}{m_i c^2} n_r \right)^2} - 1 \right\} \quad [1]$$

The equation [1] refers to the absorption of the ELF ENERGY by an atom and of the reduced gravitational mass of an atom. It is an equation for Quantum Scale. So how can be used for the 34,85Kgr (Macroscopic Scale) experiment of Aquino?

$$U = \eta \frac{I^2_{rms} \cdot R_r}{f \cdot S_{torus}} S_a \quad [2]$$

$\eta = efficiency\ of\ \ absorbption$

S_a , S_{torus} *are the Surfaces of the Iron Atom and the Torus Surface*

$I_{rms} = Current\ through\ \ Antenna$

$f = Working\ \ Frequency\ of\ \ the\ System$

The equation [2] is the absorbed ELF Energy by an atom from the surface of the Torus. We see that the only macroscopic parameter is the Torus surface S_{torus} **.**

So by equations [1] and [2] we take:

$$m_g = m_i - 2m_i \left\{ \sqrt{1 + \left(\frac{\eta \frac{I^2_{rms} \cdot R_r}{f \cdot S_{torus}} S_a}{m_i c^2} n_r \right)^2} - 1 \right\} \quad [3]$$

$$K = \left\{ \sqrt{1 + \left(\frac{\eta \frac{I^2_{rms} \cdot R_r}{f \cdot S_{torus}} S_a}{m_i c^2} n_r \right)^2} - 1 \right\} \qquad [4]$$

$n_r = refraction\ index\ in\ Iron\ Torus$

Now we have two macroscopic parameters, the n_r, S_{torus} .These parameters do not related exactly to the 34,85 Kgr of the System G. Now if we multiply the equation [3] by a number of N (it is not any specific number) atoms, then we have:

$$Nm_g = Nm_i - 2Nm_i \cdot K \qquad [5]$$

If we use the same material (Annealed Torus Iron) and do not change the frequency, then only the surface of torus can change the results for a different mass experiment (Example:100Kgr Torus).

If N are the atoms where contained in 100Kgr or 200Kgr or 1000Kgr of a Torus Shield, then for the same power density and using a known data of 2886 Watt where is the maximum delivering power of the transformer in the version of the Torus Experiment, we can null any weight we want with same power, frequency and material.

The above is completely wrong.

Aquino says that the ELF Energy penetrates in the whole volume of the material and the thickness of the material is calculated for total absorption.

So we conclude that the penetration thickness and the surface of torus, gives the relation to a unique inertial mass, which is nulled by a unique Radiation Power.

We know that, 5δ is the distance where the ELF Energy is totally absorbed.So technically:

$$5\delta \simeq Thickness\ of\ Torus$$

$$\delta = \frac{1}{\sqrt{\pi f \mu_s \sigma_s}} \quad , for\ \ 5\delta, we\ have\ total\ absorption\ by\ the\ Shield\ \ Iron\ Torus$$

Initially by the paper of Aquino, we had the density of Iron and the surface of the Torus. So:

$$m_{torus} = d_{Iron} \cdot V_{torus} \Rightarrow m_{torus} = d_{Iron} \cdot S_{torus} \cdot w, \ \ where\ V_{torus} = S_{torus} \cdot w$$

$$V_{shield\ \ Iron} = 25 \cdot 10^{-5} m^3$$

Then the constant w is:

$$w = \frac{V_{torus}}{S_{torus}} \Rightarrow w = \frac{25 \cdot 10^{-5} m^3}{0,374\ \ m^2} \simeq 66,84 \cdot 10^{-5}\ \ m$$

$$w \simeq 0,6684\ \ mm, \ \ which\ is\ the\ thickness\ of\ \ Torus$$

In the document with title:FINAL INVESTIGATION IN TORUS EXPERIMENT, we calculated the above Volume of the Torus Shield and:

$$\delta \simeq 0,134 \cdot 10^{-3} m \quad and \quad 5\delta \simeq 0,67 \cdot 10^{-3} m$$

$$or\ \ 5\delta \equiv Thickness_{torus} \simeq 0,67\ \ mm$$

That proves that the volume of the Torus and the calculated thickness is the expected by my calculations, which is right.

More if we use the Aquino's Torus weight, which is 1,69Kgr, we have:

$$m_{torus} = d_{Iron} \cdot V_{torus} \Rightarrow m_{torus} = d_{Iron} \cdot S_{torus} \cdot w, \ \ where\ V_{torus} = S_{torus} \cdot w$$

$$and\ V_{torus} = \frac{m_{torus}}{d_{Iron}}$$

Then for:

$$m_{torus} = 1,69 Kgr\ \ (By\ \ Aquino's\ equation)\ \ and\ \ d_{iron} = 7840\ \ \frac{Kgr}{m^3}, we\ have:$$

$$V_{torus} = 21,55 \cdot 10^{-5} m^3 \Rightarrow w \equiv 5\delta \simeq 0,576\ \ mm$$

This means a less thickness than the proper (about 14% from the expected), because we calculated by the electromagnetic parameters, that the penetration thickness of the Torus must have a value of 0,67 mm and according to Aquino's equation it is less.

The above fact is that the right Torus weight is that I calculated and is 1,96 Kgr. So in the equation of Aquino, he made a writing mistake.

$$m_{torus} = d_{Iron} \cdot V_{torus} \Rightarrow m_{torus} = d_{Iron} \cdot S_{torus} \cdot w \; or \; m_{torus} = d_{Iron} \cdot S_{torus} \cdot 5\delta$$

$$where \; 5\delta \equiv w, \; and \; \delta = \frac{1}{\sqrt{\pi f \mu_s \sigma_s}}$$

The above expressions limit our options for the mass of Torus, where now is depended by the frequency, the Permeability and the conductivity of the Torus and also by the Geometric Surface.

So the selected mass is defined by the following function, which has electromagnetic and geometric parameters:

$$m_{torus} = F(f, \mu_s, \sigma_s, S_{torus}) \quad [6]$$

Now a 50Kgr material and 100 Kgr material with the same density, they do not have the same Volume and Surface. So the experiment was prepared and limited by the thickness of the Torus and the Surface of Torus, where in the end the Radiation penetrated the Volume of this material.

Now we are going to make the steps to construct the final equation for the Torus Shield, from the beginning:

$$m_g = m_i - 2m_i \left\{ \sqrt{1 + \left(\frac{U}{m_i c^2} n_r \right)^2} - 1 \right\} \Rightarrow$$

$$K = \left\{ \sqrt{1 + \left(\frac{\eta \frac{I^2{}_{rms} \cdot R_r}{f \cdot S_{torus}} S_a}{m_i c^2} n_r \right)^2} - 1 \right\} \quad [7] \Rightarrow$$

Then the equation [1],by multiplying it by N atoms becomes:

$$m_g = m_i - 2m_i \cdot K \quad [8] \Rightarrow$$

$$Nm_g = Nm_i - 2Nm_i \cdot K \quad [9]$$

Where K in equation [8] is the factor which corresponds to the absorbed ELF Energy by an Atom on the surface of Torus.(Quantum Scale Equation)

Equation [9] is for N atoms, but this value of N atoms as we have seen are limited by electromagnetic and geometric parameters.
So the N atoms are:

$$N = \frac{m_{torus}}{m_{Iron}} = \frac{d_{Iron} \cdot S_{torus} \cdot 5\delta}{m_{Iron}} = \frac{d_{Iron} \cdot S_{torus} \cdot 5}{m_{Iron}} \cdot \frac{1}{\sqrt{\pi f \mu_s \sigma_s}}$$

Then:

$$N = \frac{d_{Iron} \cdot S_{torus} \cdot 5}{m_{Iron}} \cdot \frac{1}{\sqrt{\pi f \mu_s \sigma_s}} \quad [10]$$

Now by equation [9] and [10], we take a global expression for any weight of used Torus:

$$m_{g(torus)} = \frac{5 \cdot d_{Iron} \cdot S_{torus}}{\sqrt{\pi f \mu_s \sigma_s}} - 2 \cdot \frac{5 \cdot d_{Iron} \cdot S_{torus}}{\sqrt{\pi f \mu_s \sigma_s}} \cdot K \quad [11]$$

$$where\ m_{i(torus)} = \frac{5 \cdot d_{Iron} \cdot S_{torus}}{\sqrt{\pi f \mu_s \sigma_s}}$$

μ_s, σ_s *are for the Shield Iron Torus*

The equation [11] can be used for any System G (Torus Experiment) in any different frequency and any selected Torus Shield Mass, certainly limited by the electromagnetic and geometric parameters.

If we add in equation [11] a weight Load, then we have:

$$m_{g(torus)} + m_{Load} = m_{Load} + \frac{5 \cdot d_{Iron} \cdot S_{torus}}{\sqrt{\pi f \mu_s \sigma_s}} - 2 \cdot \frac{5 \cdot d_{Iron} \cdot S_{torus}}{\sqrt{\pi f \mu_s \sigma_s}} \cdot K \Rightarrow$$

$$m_{g(System\ G)} = m_{i(System\ G)} - 2 \cdot \frac{5 d_{Iron} \cdot S_{torus}}{\sqrt{\pi f \mu_s \sigma_s}} \cdot K \quad [12]$$

The equation [12] describes exactly the equation of a System G, with the Torus Mass limited by electromagnetic and Geometric Parameters. We have to mentioned again that we used for equation [12], constant Torus Relative Magnetic Permeability.

So if we put the values for the parameters given by Aquino's Experiment, then we have the known by the previous documents, equation, which describes exactly the effect of the System G:

$$m_{g(System\ G)} = 34,85Kgr - 2 \cdot 1,96Kgr \left\{ \sqrt{1 + 5,71 \cdot 10^{-27} \cdot I^4{}_0 \cdot n^2{}_r(\mu_\chi)} - 1 \right\} \quad [13]$$

The equation [13] is exactly the general expression of System G in Aquino's Experiment with variable refraction index vs Torus Permeability.

The equation [13] can predict the correct theoretical results of Aquino's Table of values.

THE NEW TABLE

Current in Amps	Weight(Th) In Kgr	Weight(Exp) In Kgr	Accuracy
0	34,85	34,85	00,00%
50	34,79	34,83	00,11%
100	34,06	34,26	00,58%
130,01	5,80	5,80	00,00%
150	31,72	32,25	01,67%
200	27,65	28,68	03,72%
250	22,05	23,80	07,93%
300	15,04	17,69	17,61%

So the Theoretical values of Aquino's Table in his related paper are wrong, because we proved that he made a writing mistake and this guided to wrong results and very close values between Experimental and Theoretical Data.

I used the 1,96Kgr weight of Torus, because we discovered by calculations, that is the correct weight and the System G mass is 34,85 Kgr by Aquino.

We have seen that the refraction index changes, because of the change of the Permeability of Torus Shield.

And this happens because in the experiment run High Currents, where generate High Magnetic Fluxes to the Torus Shield. These fluxes are depended as we know by the current.

When the current start to pass a critical value, then the Permeability changes and changes also and the refraction index in equation [13], as we have investigated in a previous document.

So by the above investigation I concluded that the right equation, which can describe the System's G effects is the equation [13].

All the other equations in the previous documents, are true also but for specific conditions. We used them as examples, to find out what really is the only and the right one, which is in the present document the equation [13], as I finally concluded.

Best Regards

John Xydous

Electronic Engineer

Greece