THE PYRAMID AND THE PROTON

-By-

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ABSTRACT

This paper will establish the quantum connection between the geometry of the Great Pyramid at Giza in Egypt and the proton and electron constants.

The fundamental constants of the atomic fine structure α as well as the natural number e and π will be used to construct a proton mass from the electron mass while using the golden ratio equivalent to (4/π) squared. Since the Great Pyramid is geometrically based on the golden ratio and π, we arrive at the amazing conclusion that the Great Pyramid at Giza has a very intimate connection to the geometry of the proton.

Also is developed frequencies that are fundamental to gravitation on a quantum scale and can be used as super heat rays to melt stone for building massive constructs such as those seen all over the Earth where a knife blade cannot be inserted between stones weighing hundreds of tons.

Finally, two energy bands between the proton and electron n1 shell of hydrogen are proposed which may be linked to "cold fusion"

FundamentalEGFrequencies.xmcd

The below equation is represents the fundamental electrogravitational equation. There are individual sections within the total equation that are also fundamental to the action of electrogravitation. These are the quantum A-vector and the Force Constant Fqk sections.

(A) variable weber/meter	|-------- Fqk constant newton --------| (amp) (amp)	(A) variable weber/meter

$$F_{EG} = \left(\frac{\mu_o \cdot i_{LM} \cdot \lambda_{LM}}{4 \cdot \pi \cdot \Delta R_x}\right) \cdot \left[\left(\frac{i_{LM} \cdot \lambda_{LM}}{l_q}\right) \cdot \mu_o \cdot \left(\frac{i_{LM} \cdot \lambda_{LM}}{l_q}\right)\right] \cdot \left(\frac{\mu_o \cdot i_{LM} \cdot \lambda_{LM}}{4 \cdot \pi \cdot \Delta R_x}\right) \qquad 1)$$

The equation works in a two phase clocked universe where one side alternates in existence with the other side centered around the magnetic permeability connector μ_o. The output force has the units of newton squared times henry/meter. This is arrived at by multiplying the force on the left in phase #1 by the force on the right during phase #2 and connecting them by multiplying by the connector in the middle to form the total product. As far as local space measurement is concerned the result is measured as a newton force only. The total of the constituents are invisible to the singular local real force measurement performed from either phase as a local space measurement. **Thus, there are two equal and local realities.**

Beginning Constants Of Evaluation

$\mu_o := 4 \cdot \pi \cdot 1 \cdot 10^{-07} \cdot henry \cdot m^{-1}$ Magnetic permeability of free space

$i_{LM} := 1.607344039 \cdot 10^{-18} \cdot amp$ Least quantum EG current

$\lambda_{LM} := 8.514995412 \cdot 10^{-03} \cdot m$ Least quantum EG wavelength

$l_q := 2.817940920 \cdot 10^{-15} \cdot m$ Classic electron radius

$\Delta R_x := 5.291772490 \cdot 10^{-11} \cdot m$ Bohr n1 energy level radius

The above highlighted constants are derived in my foundation work online[1] and will be expanded on as related to the known fundamental constants in this paper.

The following is based on the Bohr hydrogen atom at the equivalent n1 radius ignoring the mass of the proton. Then the analysis is between two electrons at the Bohr n1 radius.

The total electrogravitational force F_{EG} is calculated below

$$F_{EG} := \left(\frac{\mu_o \cdot i_{LM} \cdot \lambda_{LM}}{4 \cdot \pi \cdot \Delta R_x}\right) \cdot \left[\left(\frac{i_{LM} \cdot \lambda_{LM}}{l_q}\right) \cdot \mu_o \cdot \left(\frac{i_{LM} \cdot \lambda_{LM}}{l_q}\right)\right] \cdot \left(\frac{\mu_o \cdot i_{LM} \cdot \lambda_{LM}}{4 \cdot \pi \cdot \Delta R_x}\right) \qquad 2)$$

$$F_{EG} = 1.982973074763 \times 10^{-50} \cdot N \cdot \frac{H}{m} \cdot N$$

Compare the above result to the standard Newtonian expression for gravitation where:

$G_N := 6.672590000 \cdot 10^{-11} \cdot \left(N \cdot m^2 \cdot kg^{-2}\right)$ Newtonian Gravitational constant

$m_e := 9.109389700 \cdot 10^{-31} \cdot kg$ Electron rest mass

$$F_N := \frac{G_N \cdot m_e^{\,2}}{\Delta R_x^{\,2}} \qquad 3)$$

$$F_N = 1.977291388969 \times 10^{-50} N$$

The results in magnitude are very close between F_{EG} and F_N.

let: $h := 6.6260755 \cdot 10^{-34} \cdot J \cdot s$ Planks quantum constant

The center portion of the electrogravitational equation labeled as F_{QK} can be multiplied by the elecrtrogravitational wavelength λ_{LM} and then divided by plank's constant h to arrive at a **frequency** that can be considered to be universally fundamental to the gravitational connection between all quantum particles and matter in general. **Interfering with this frequency may be expected to cause the gravitational connection to be increased, decreased or broken completely depending on the phase of the interference.**

$$F_{QK} := \left[\left(\frac{i_{LM}\cdot\lambda_{LM}}{l_q}\right)\cdot\mu_o\cdot\left(\frac{i_{LM}\cdot\lambda_{LM}}{l_q}\right)\right] \qquad F_{QK} = 2.964371445813\times10^{-17}N \qquad 4)$$

$$f_{QK} := F_{QK}\cdot\lambda_{LM}\cdot h^{-1} \quad \text{or,} \quad f_{QK} = 3.809435805638\times10^{14}\cdot Hz \qquad 5)$$

The A-vector portion on the left or right (phase #1 or phase #2) side of the F_{QK} constant connector can be examined in like manner as shown below.

$$F_{AQ} := \left(\frac{\mu_o\cdot i_{LM}\cdot\lambda_{LM}}{4\cdot\pi\cdot\Delta R_x}\right)\cdot(i_{LM}) \qquad F_{AQ} = 4.157200223298\times10^{-35}N \qquad 6)$$

$$f_{AQ} := \left(\frac{\mu_o\cdot i_{LM}\cdot\lambda_{LM}}{4\cdot\pi\cdot\Delta R_x}\right)\cdot\frac{i_{LM}\cdot\lambda_{LM}}{h} \qquad f_{AQ} = 5.342308705681\times10^{-4}\cdot Hz \qquad 7)$$

The above frequency f_{AQ} is equal to the least quantum electrogravitational frequency f_{LM} times the square of the atomic fine structure constant a.

$$f_{LM} := 1.003224805\cdot10^{01}\cdot Hz \qquad \alpha := 7.297353080\cdot10^{-03}$$

Where: $$f_{AQ}\cdot\alpha^{-2} = 10.032248017\cdot Hz \qquad 8)$$

The low frequency f_{AQ} is equal to a period of 31.19749818 minutes.

$$t_{AQ} := \frac{1}{f_{AQ}} \qquad t_{AQ} = 31.197498281864\cdot min \qquad 9)$$

It is of importance to mention that frequencies related directly to the electrogravitational equation are standing wave frequencies that do not radiate in local space as electromagnetic waves do. These frequencies are connected effectively instantaneously to like frequencies in non-local quantum fashion. The group velocity v_{LM} is nearly zero and is equal to the square root of the atomic fine structure constant **α** in meter per second units. As a result, the phase velocity is near 10^18 meters per second and effectively instantly carries the action force to all other quantum particles in the universe.

Let: $c_{vel} := 2.997924580 \cdot 10^{08} \cdot m \cdot s^{-1}$ $\quad v_{LM} := \sqrt{\alpha} \cdot m \cdot s^{-1}$

Then the action force phase velocity is:

$$v_P := c_{vel}^{2} \cdot v_{LM}^{-1} \qquad v_P = 1.052104131127 \times 10^{18} \frac{m}{s} \qquad 10)$$

This is exactly how waveguide action is computed wherein it is known that the phase velocity inside of a waveguide can exceed the speed of light as the group velocity approaches zero. It is usually stated that the information is associated with the group velocity. This is so that people will be steered away from the possibility that information can exceed the speed of light in its rate of transfer across space. However, that is for amplitude modulation. There is also frequency or phase shift which rides the phase wave which guarantees that information <u>will</u> be transferred at the speed of the phase wave. To my knowledge, phase or frequency shift keyed information is not mentioned in waveguide theory at all. It also turns out that waveguide dynamics fit the quantum particle non-local action calculations as if the action force connector between particles are actually like zero loss waveguides. That may be the same mechanics as superconductivity. As a result, all quantum particles in the universe must be instantly aware of all other quantum particles in that same universe. (Our universe being considered herein as an individual time slice apart from other possible time slices defining other possible universes.)

Let us return to the above extremely low frequency f_{AQ} and examine how it might relate to the Great Pyramid at Giza in Egypt.

$$\lambda_{AQ} := \frac{v_{LM}}{f_{AQ}} \qquad \lambda_{AQ} = 5.246126241816 \times 10^{2} \cdot ft \qquad 11)$$

Pyramid height calculated is: $\quad P_H := 483.2784495 \cdot ft$

$$P_{HR} := \frac{\lambda_{AQ}}{P_H} \qquad \text{Ratio:} \quad P_{HR} = 1.085528694119 \qquad 12)$$

The established hyperfine frequency of hydrogen is:

$$f_{H1} := 1.420405751786 \cdot 10^{09} \cdot Hz$$

$$\Delta\lambda_{AQPH} := \lambda_{AQ} - P_H \qquad \Delta\lambda_{AQPH} = 41.334174681643 \cdot ft \qquad 13)$$

NOTE: $P_H \cdot \sqrt{\alpha} = 41.283842198658 \cdot ft$

AND: $\dfrac{P_H \cdot \alpha}{\left(\frac{4}{\pi}\right) \cdot 4} = 0.211060830176 \cdot m$ = **Hydrogen Radiation Wavelength!** 14)

Where: $c_{vel} \cdot f_{H1}^{-1} = 0.211061140539\, m$ Check: (X) 15)

Again, the Great Pyramid is quantum in its designed connection to the universe. As such, it may be considered to be a very large macroscopic quantum particle.

We now look for an expression that will take the ratio of λ_{AQ} to the height of the pyramid P_H that will be very near to unity. From that expression we will look at the individual parameters for overall relevance. In previous papers online on my web site at **electrogravity.com** it was formally established that the effective acoustic air velocity in and near the Great Pyramid during operation was **1230.658466 ft/s**. Further, dividing this velocity by (4/π) squared in Hz units yielded the operating length of one side of the Great Pyramid. This is slightly greater than the measured physical length of today. The height of the pyramid can be determined in at least two ways. One is to divide the perimeter length by 2*π and the other is to take 1/2 of one side length times (4/π).

$$P_{H1} := \frac{\left[1230.658466 \cdot ft \cdot s^{-01} \cdot \left(\frac{4}{\pi}\right)\right]}{\left(\frac{4}{\pi}\right)^2 \cdot Hz \cdot 2} \qquad P_{H1} = 4.83278449483 \times 10^2 \cdot ft \qquad 16)$$

Like terms are not canceled on purpose to show the depth in the logic.

$$P_{H2} := \frac{\left(1230.658466 \cdot ft \cdot s^{-01}\right)}{\left(\frac{4}{\pi}\right)^2 \cdot Hz} \cdot 4 \cdot \frac{1}{2 \cdot \pi} \qquad P_{H2} = 4.83278449483 \times 10^2 \cdot ft \qquad 17)$$

Armed with the operating height of the pyramid, we now determine the ratio of related terms that will yield unity as described above.

$$\frac{P_H \cdot 4 \cdot \pi}{\lambda_{AQ} \cdot \left(\frac{4}{\pi}\right)^6} = 2.717113901484$$ Very close to the natural number e. 18)

The result near the natural number e leads us to the next step which is as follows:

$$\frac{P_H \cdot 4 \cdot \pi}{\lambda_{AQ} \cdot \left(\frac{4}{\pi}\right)^6 \cdot e} = 0.999570343677$$ 19)

Using Mathcad's symbolic equation solver, we can simplify the above result to:

$$\frac{P_H \cdot 4 \cdot \pi}{\lambda_{AQ} \cdot \left(\frac{4}{\pi}\right)^6 \cdot e}$$ simplifies to $$\frac{\pi^7 \cdot P_H \cdot e^{-1}}{1024 \cdot \lambda_{AQ}} = 0.999570343677$$ 20)

The terms that are of interest are the natural number e, $(4/\pi)$, and 1024. Previously the atomic fine structure constant α was also of interest as:

$$f_{AQ} \cdot \alpha^{-2} = 10.032248017 \cdot Hz$$ which is f_{LM} from above. 21)

Firstly, the natural number e seems to fit the requirement of moving from the quantum non-local space realm to the local space electromagnetic realm. This will be further explored as we expand on the structure of the electrogravitational equation and its possible electromagnetic frequency components.

Secondly, the number 1024 is a 10th power of 2 which fits the binary system of computer language. I consider our local existence as being refreshed much like the ordinary computer systems of today and many other people have suggested the same concept as to our actual state of reality: That is, our universe is a giant non-locally interactive computer. Like an ordinary computer, the master universal clock outputs a 2 phase Heaviside unit function pulse to synchronize a 2 phase quantum universe..

The difference between λ_{AQ} and P_H is of interest since that length result is very close to being exactly 4π meters.

$$\Delta\lambda := \lambda_{AQ} - P_H \qquad \Delta\lambda\cdot(4\cdot\pi)^{-1} = 1.002569224607\cdot m \qquad 22)$$

If this length were to be installed as a metal mast on top of the Great Pyramid vertically, the result may be quite illuminating; both informationally as well as literally.

The above calculations are based on the A-vector times a quantum current constant in the force constant expression F_{QK}. The next calculation will include the A-vector times the total quantum current expression in the F_{QK} expression. This will derive a force that is called the **fundamental magnetic quantum constant** that is non-locally connected to all matter.

$$F_{QM} := \left(\frac{\mu_o\cdot i_{LM}\cdot\lambda_{LM}}{4\cdot\pi\cdot\Delta R_x}\right)\cdot\left(\frac{i_{LM}\cdot\lambda_{LM}}{l_q}\right) \qquad 23)$$

It is important to emphasize that the A-vector magnetic vector potential cannot be shielded against, but moves freely through most matter.

$$F_{QM} = 1.256184633855\times10^{-22}N$$

Note: $$F_{QM}\cdot\mu_o\cdot F_{QM} = 1.982973074763\times10^{-50}\cdot N\cdot\frac{H}{m}\cdot N \qquad 24)$$

which is the original electrogravitational force result from the standard equation above.

Next, we multiply the F_{QM} result by the electrogravitational wavelength λ_{LM} and then divide by plank's constant h to arrive at a frequency in the vicinity of the hydrogen hyperfine frequency of the hydrogen atom.

$$f_{QM} := F_{QM}\cdot\lambda_{LM}\cdot h^{-1} \qquad f_{QM} = 1.614289845309\times10^{9}\cdot Hz \qquad 25)$$

Following the procedure above, we now will find the terms involving the relevant constants that will yield a result as close as possible to unity.

$$\frac{f_{QM} \cdot 2 \cdot \pi}{f_{H1} \cdot e} \cdot \left(\frac{4}{\pi}\right)^{-4} = 0.999571821231 \qquad \text{(Very near unity.)} \qquad 26)$$

Applying Mathcad's symbolic equation solver, we simplify the above to:

$$\frac{f_{QM} \cdot 2 \cdot \pi}{f_{H1} \cdot e} \cdot \left(\frac{4}{\pi}\right)^{-4} \quad \text{simplifies to} \quad \frac{\pi^5 \cdot f_{QM} \cdot e^{-1}}{128 \cdot f_{H1}} \qquad 27)$$

Compare this to the extreme low frequency result from eq. #20 above:

$$\frac{\pi^7 \cdot P_H \cdot e^{-1}}{1024 \cdot \lambda_{AQ}} = 0.999570343677 \qquad 28)$$

The fundamental electrogravitational quantum magnetic term of 128 is the 7th power of 2 for f_{QM} instead of the 10th power of 2 involving f_{AQ} from above. Further, f_{AQ} has π to the 7th power while f_{QM} has π to the 5th power. The natural number e appears in both of the expressions and connects the quantum non-local realm to the local space electromagnetic realm for measurable real field.

The quantum F_{QM} from above is in non local space as far as the action force is concerned and as such is instantaneous. The reaction is in local space and forms what is called the ordinary local space (General Relativity Theory) ***observable*** *gravitational* field action.

It is very important to accept that it is the QUANTUM magnetic module of force F_{LM} that is fundamental to the overall non-local quantum action of electrogravitation. Then there are the strong, weak electric, **magnetic** and finally electrogravitational forces. That is now a total of 5: Not just 4. It is this approach that allows for the unification of relativity to quantum gravity.

Then there are gravitational waves generated by changes of energy such as supernovas and paired black holes in rotation around each other but gravitational waves are NOT the cause of gravitation. The stubborn assumption that gravitational action must travel at the speed of light is what is holding back the unification of quantum and relativistic field theories. Gravitational quantum **action is non-local** and relativistic GRT **reaction is local**.

The central portion of the electrogravitational equation labeled as F_{qk} may be examined for the large magnetic permeability μ_r related to the free space permeability constant μ_o.

$$\mu_r := \left[\left(\frac{\lambda_{LM}}{l_q}\right)\cdot\mu_o\cdot\left(\frac{\lambda_{LM}}{l_q}\right)\right] \qquad \mu_r = 1.147400232154\times 10^{19}\cdot\frac{H}{m} \qquad 29)$$

Dividing the Quantum Hall Ohm R_H by the electrogravitational fundamental standing wave frequency f_{LM} we arrive at the **Electrogravitational Inductance** L_{QM}.

$$R_H := 2.58128056\cdot 10^{04}\,\text{ohm} \qquad \text{Quantum Hall Ohm}$$

Then: $$L_{QM} := R_H\cdot f_{LM}^{-1} \qquad L_{QM} = 2.572983190941\times 10^{3}\,H \qquad 30)$$

We can now solve for the distance that would be related to the relative permeability.

$$\lambda_r := \frac{L_{QM}}{\mu_r} \qquad \lambda_r = 2.242446113254\times 10^{-16}\,m \qquad 31)$$

The classic radius of the electron divided by 4π is:

$$r_e := 2.817940920\cdot 10^{-15}\cdot m \qquad r_e\cdot(4\cdot\pi)^{-1} = 2.242446133795\times 10^{-16}\,m \qquad 32)$$

$$\frac{r_e\cdot(4\cdot\pi)^{-1}}{\lambda_r} = 1.00000000916 \qquad 33)$$

Then the distance required related to the electrogravitational inductance to arrive at the relative permeability of interest is equal to the classic electron radius divided by 4π.

$$\frac{L_{QM}}{r_e\cdot(4\cdot\pi)^{-1}} = 1.147400221644\times 10^{19}\cdot\frac{H}{m} \qquad \text{Same as eq. \#29 above.} \qquad 34)$$

There is a numerically geometric ratio involving the natural number e as well as π that relates the mass of the proton to the mass of the electron.

$$m_p := 1.672623100\cdot 10^{-27}\cdot kg \qquad me := 9.109389700\cdot 10^{-31}\cdot kg$$

$$r_p := \frac{h}{m_p\cdot c_{vel}\cdot 2\cdot\pi} \qquad r_p = 2.103089322379\times 10^{-16} m \qquad 35)$$

$$\left[\left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\frac{\pi}{e}\right]\cdot 2 = 2.627931185899 \qquad \left(\frac{4}{\pi}\right)^4 = 2.628091457199 \qquad 36)$$

$$\frac{\left(\frac{4}{\pi}\right)^4}{\left[\left[\left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\frac{\pi}{e}\right]\cdot 2\right]} = 1.000060987632$$

The quotient error is very close to unity as a ratio. 37)

$$\frac{\left(\frac{4}{\pi}\right)^4}{\left[\left[\left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\frac{\pi}{e}\right]\cdot 2\right]}$$

simplifies to

$$\frac{2048\cdot r_p^{\,2}\cdot e}{\pi^3\cdot r_e^{\,2}} = 1.000060987632 \qquad 38)$$

Again, notice the binary power of 2 to the 11th. = 2048.

That equates the proton dimension as being related to the natural number e and also to the Golden Ratio which is set herein as being (4/π) squared. NOTE that:

$$e\cdot\left(\frac{4}{\pi}\right)^4\cdot\frac{1}{2} = 3.571946625817 \qquad \text{also:} \qquad \left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\pi = 3.571728794535 \qquad 39)$$

Then the following equation proves that there is a simple geometric and numerical expression that involves the geometry of the Great Pyramid of Egypt, the proton and electron mass' taken as a ratio, π and the natural number e.

$$\ln\left[\left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\pi\right] = 1.27304973475 \qquad \text{where,} \quad \frac{4}{\pi} = 1.273239544735 \qquad 40)$$

The importance of the above equation cannot be overstated. Next, the classic electron radius and the Compton proton radius are analyzed for how they are geometrically related.

$$m_e = 9.1093897\times10^{-31}\,\text{kg} \qquad r_e = 2.81794092\times10^{-15}\,\text{m}$$

$$m_p = 1.6726231\times10^{-27}\,\text{kg} \qquad r_p = 2.103089322379\times10^{-16}\,\text{m}$$

$$\alpha = 7.29735308\times10^{-3}$$

$$\frac{m_p}{m_e} = 1.836152755656\times10^{3} \qquad \frac{r_e}{r_p} = 13.399054857131 \qquad 41)$$

Multiplying the ratio on the right by the inverse of the fine structure constant α, we arrive at the correct result for the proton to electron mass ratio.

$$\frac{r_e}{r_p}\cdot\frac{1}{\alpha} = 1.836152740622\times10^{3} \qquad 42)$$

The ratio of the quantum constants related to the ratio of the electron to the proton wavelength radius will become the basis for an expression that will output both a positive and negative mass which is the actual case in particle physics.

The following expressions will show the mathematical geometrical expressions that out of a single expression involving the Heisenberg expressions for the quantum mass of the proton and the electron we can use the output to develop the reason for both a positive and negative mass of the proton and its correct mass numerically. First an expression that derives the mass of the electron is presented and that expression is substituted into the required quantum geometrical expression as follows:

$$r_e := \frac{h\cdot(\alpha)}{m_e\cdot c_{vel}\cdot 2\cdot\pi} = 2.817940943072\times 10^{-15}\,\mathrm{m}$$ Classic electron radius 43)

Then using Mathcad's symbolic solver engine we **solve for the correct mass of the proton** based on the mass of the electron and the related geometric terms e, α and π:

$$\ln\left[\left[\frac{\left(\frac{h\cdot\alpha}{m_e\cdot c_{vel}\cdot 2\cdot\pi}\right)\cdot(4\cdot\pi)^{-1}}{\left(\frac{h}{m_p\cdot c_{vel}\cdot 2\cdot\pi}\right)}\right]^2\cdot\pi\right] = \frac{4}{\pi}$$ has solution(s) $$\begin{pmatrix}\dfrac{4\cdot\sqrt{\pi}\cdot m_e\cdot\sqrt{e^{\frac{4}{\pi}}}}{\alpha}\\ -\dfrac{4\cdot\sqrt{\pi}\cdot m_e\cdot\sqrt{e^{\frac{4}{\pi}}}}{\alpha}\end{pmatrix}$$ 44)

$$\frac{4\cdot\sqrt{\pi}\cdot m_e\cdot\sqrt{e^{\frac{4}{\pi}}}}{\alpha} = 1.67278183412\times 10^{-27}\,\mathrm{kg}$$ 45)

$$-\frac{4\cdot\sqrt{\pi}\cdot m_e\cdot\sqrt{e^{\frac{4}{\pi}}}}{\alpha} = -1.67278183412\times 10^{-27}\,\mathrm{kg}$$ 46)

Both results state the correct mass of the proton as well as one being positive and the other negative.

The mass ratio proton to electron is: $$\left|\frac{4\cdot\sqrt{\pi}\cdot m_e\cdot\sqrt{e^{\frac{4}{\pi}}}}{\alpha\cdot m_e}\right| = 1.836327008954\times 10^{3}$$ 47)

Next, the following ratios are compared as another ratio to see what the relative quotient error may be. This may lead to energy involving unexpected particles..

$$\frac{r_e}{r_p} = 13.399054966837 \qquad 4\cdot\sqrt{\pi}\cdot\sqrt{e^{\frac{4}{\pi}}} = 13.40032655468 \qquad 48)$$

The quotient error is:

$$\Delta Error := \frac{4\cdot\sqrt{\pi}\cdot\sqrt{e^{\frac{4}{\pi}}}}{\left(\frac{r_e}{r_p}\right)} - 1 \qquad \Delta Error = 9.490130803425 \times 10^{-5} \qquad 49)$$

Then the differential energy related to the error quotient involving electron rest mass energy is:

$$\Delta E_{me} := m_e\cdot c_{vel}^{2}\cdot\left[\frac{4\cdot\sqrt{\pi}\cdot\sqrt{e^{\frac{4}{\pi}}}}{\left(\frac{r_e}{r_p}\right)} - 1\right] \qquad \Delta E_{me} = 7.769675588656 \times 10^{-18}\,J \qquad 50)$$

The **standing wave energy** in the Bohr atomic n1 shell of the hydrogen atom is:

$$E_{n1} := m_e\cdot c^2\cdot\alpha^2\cdot\frac{1}{2} \qquad E_{n1} = 2.179874101652 \times 10^{-18}\,J \qquad 51)$$

Now an expression is built to express the output as close to unity as possible as we did in the above equations.

$$\frac{\Delta E_{me}}{E_{n1}}\cdot\frac{2}{e} = 2.622448618911 \qquad \sqrt[4]{\frac{\Delta E_{me}}{E_{n1}}\cdot\frac{2}{e}\cdot\left(\frac{4}{\pi}\right)^{-1}} = 0.999462786253 \qquad 52)$$

Again, Mathcad's symbolic equation solver is applied as in previous equations:

$$\sqrt[4]{\frac{\Delta E_{me}}{E_{n1}}\cdot\frac{2}{e}\cdot\left(\frac{4}{\pi}\right)^{-1}} \quad \text{simplifies to} \quad \frac{\pi\cdot\sqrt[4]{\frac{2\cdot\Delta E_{me}\cdot e^{-1}}{E_{n1}}}}{4} = 0.999462786253 \qquad 53)$$

Set: $q_o := 1.602177330\cdot 10^{-19}\cdot C$

A hidden *free* energy (cold fusion?) is: $\left(\frac{\Delta E_{me}}{q_o}\right) = 48.494479625774\cdot V$ 54)

Compare to the known n1 energy of: $\frac{E_{n1}}{q_o} = 13.605698076206\,V$ 55)

NOTE:

$$\sqrt[4]{\frac{\left(\frac{\Delta E_{me}}{q_o}\right)\cdot 2}{\frac{E_{n1}}{q_o}\cdot e}} = 1.272555542948 \quad \text{where,} \quad \frac{4}{\pi} = 1.273239544735 \qquad 56)$$

Then the differential energy related to the error quotient (**eq #49**) involving **<u>proton rest mass energy</u> is:**

$$\Delta E_{mp} := m_p\cdot c_{vel}^{\,2}\cdot\left[\frac{4\cdot\sqrt{\pi}\cdot\sqrt{e^{\frac{4}{\pi}}}}{\left(\frac{r_e}{r_p}\right)} - 1\right] \qquad \Delta E_{mp} = 1.426631124266\times 10^{-14}\,J \qquad 57)$$

$$\frac{\Delta E_{mp}}{q_o} = 8.904327239897 \times 10^4\,V$$

This is less than the rest mass energy of the electron. Note the 4/π and e connection as shown below. 58)

The proton standing wave energy just outside of the proton error quotient energy above is::

$$E_{pmc2} := m_p \cdot c_{vel}^2 \cdot \alpha^2 \cdot \frac{1}{2 \cdot q_o} \qquad E_{pmc2} = 2.498214001525 \times 10^4\,V$$ 59)

The geometric connection to the Great Pyramid at Giza in Egypt is established by the two energy bands that may exist between the proton and the electron in the n1 shell of the hydrogen atom. The square of the **golden ratio** is this relationship.

$$\frac{\Delta E_{mp}}{E_{pmc2}} \cdot \frac{2}{e \cdot q_o} = 2.622448618911 \qquad \sqrt[4]{\frac{\Delta E_{mp}}{E_{pmc2}} \cdot \frac{2}{e \cdot q_o}} = 1.272555542948$$ 60)

Now an expression is built to express the output as close to unity as possible as we did in the above equations.

Dividing twice the error from unity of eq. #49 by the error from unity of eq. #37 we arrive at a number very close to π.

$$\frac{\left(\frac{4 \cdot \sqrt{\pi} \cdot \sqrt{e^{\frac{4}{\pi}}}}{\frac{r_e}{r_p}} - 1\right) \cdot (2)}{\left[\left[\frac{\left(\frac{4}{\pi}\right)^4}{\left[\left[\left[\frac{r_e \cdot (4 \cdot \pi)^{-1}}{r_p}\right]^2 \cdot \frac{\pi}{e}\right] \cdot 2\right]\right]} - 1\right]} = 3.112985180429$$

Close to π. 61)

The arctangent of the above result times 5 yields a number very close to 360 degrees as shown below. That describes a **pentagram** with five individual inner angles very close to 72 degrees each.

$$\left[\operatorname{atan}\left[\frac{\left(\frac{4\cdot\sqrt{\pi}\cdot\sqrt{e^{\frac{4}{\pi}}}}{\frac{r_e}{r_p}}-1\right)\cdot 2}{\left[\left[\frac{\left(\frac{4}{\pi}\right)^4}{\left[\left[\left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\frac{\pi}{e}\right]\cdot 2\right]}\right]-1\right]}\right]\right]\cdot 5 = 3.609558024284\times 10^2\cdot deg \qquad 62)$$

We have come to slightly over a full circle!

$$\operatorname{atan}\left[\frac{\left(\frac{4\cdot\sqrt{\pi}\cdot\sqrt{e^{\frac{4}{\pi}}}}{\frac{r_e}{r_p}}-1\right)\cdot 2}{\left[\left[\frac{\left(\frac{4}{\pi}\right)^4}{\left[\left[\left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\frac{\pi}{e}\right]\cdot 2\right]}\right]-1\right]}\right]$$

simplifies to

$$\operatorname{atan}\left(\frac{2\cdot\pi^3\cdot r_e^{\,2}-8\cdot\pi^{\frac{7}{2}}\cdot r_e\cdot r_p\cdot e^{\frac{2}{\pi}}}{\pi^3\cdot r_e^{\,2}-2048\cdot r_p^{\,2}\cdot e}\right) \qquad 63)$$

Where,

$$\operatorname{atan}\left(\frac{2\cdot\pi^3\cdot r_e^{\,2}-8\cdot\pi^{\frac{7}{2}}\cdot r_e\cdot r_p\cdot e^{\frac{2}{\pi}}}{\pi^3\cdot r_e^{\,2}-2048\cdot r_p^{\,2}\cdot e}\right) = 72.191160485925\cdot deg \qquad 64)$$

It is of interest that in eq. # 63 above the term e to the 2/π power when squared equals:

$$\left(e^{\frac{2}{\pi}}\right)^2 = 3.572406808671 \qquad 65)$$

The equations in #39 above also yielded:

$$e\cdot\left(\frac{4}{\pi}\right)^4\cdot\frac{1}{2} = 3.571946625817 \qquad \text{also:} \qquad \left[\frac{r_e\cdot(4\cdot\pi)^{-1}}{r_p}\right]^2\cdot\pi = 3.571728853023$$

The number 3.57... seems to be relevant to the ratio of the proton mass to the electron mass as well as the natural number e, the fine structure α, and π.

Now state the constant for the Atomic Mass Unit: $u := 1.660540200\cdot 10^{-27}\cdot kg$

where it is of interest that: $$\left(\frac{m_p}{u} - 1\right)\cdot\frac{1}{\alpha} = 0.997140663893 \qquad 66)$$

Then the fine structure constant α is very relevant to the ratio of the AMU to the electron rest mass as shown above.

Now is presented for our viewing audience the following delight:

$$\frac{\left[2\cdot\ln\left[\left(\frac{u}{m_e}\cdot\alpha\right)\cdot\left[\left(e^{\frac{2}{\pi}}\right)^2\right]^{-1}\right]\right]^{\frac{1}{4}}}{\frac{4}{\pi}} = 1.000123406019 \qquad 67)$$

It is of interest now to simplify eq. #67 above using Mathcad's Symbolic Equation Solver as follows:

$$\left[\frac{2\cdot\ln\left[\left(\frac{u}{m_e}\cdot\alpha\right)\cdot\left[\left(e^{\frac{2}{\pi}}\right)^2\right]^{-1}\right]}{\frac{4}{\pi}}\right]^{\frac{1}{4}} \quad \text{simplifies to} \quad \frac{\pi^{\frac{3}{4}}\cdot\left(2\cdot\pi\cdot\ln\left(\frac{\alpha\cdot u}{m_e}\right)-8\right)^{\frac{1}{4}}}{4} \qquad 68)$$

Where: $\frac{\alpha\cdot u}{m_e} = 13.302261229349$ and notice the positive even number of 8.

A final look at the ratio (eg #58 to eq #54) of the energy bands established between the proton and the electron in the Bohr n1 energy shell and the ratio is that of the proton to electron rest mass.

$$\frac{\left(\frac{\Delta E_{mp}}{q_o}\right)}{\left(\frac{\Delta E_{me}}{q_o}\right)} = 1.836152755656\times 10^3 \qquad \frac{m_p}{m_e} = 1.836152755656\times 10^3 \qquad 69)$$

The above predicted energy bands can be interfered with to cause their resonance energy to fall out of step which would then cause the forces holding the electrons in all of the shells to slip away. This would cause total disintegration of the shells of the atom further causing it to become monatomic. When this happens, the proton would then start building its surrounding un-terminated field to very high levels of energy. When the electrons began to refill the vacant shell(s) of the atom, tremendous excess proton field energy would be released. This is free energy radiated and would be useful for a myriad of applications. A quantum particle electric field that was un-terminated forever would build an infinite field of energy. **We must thank God for ubiquitous conjugation galore.**

The below equations show the interrelationship of the two new fields (Eq. #54, #55 & #60) to the fundamental numbers e and π to the mass ratios of the proton to the electron.

$$\left[\frac{\left(\frac{\Delta E_{me}}{q_o}\right)}{\frac{E_{n1}}{q_o}}\right]^2 = 12.704072054148 \qquad \left[\frac{\Delta E_{mp}}{E_{pmc2}}\cdot\left(\frac{1}{q_o}\right)\right]^2 = 12.704072054148$$

From eq. 65 above:

$$e\cdot\left(\frac{4}{\pi}\right)^4\cdot\frac{1}{2} = 3.571946625817 \qquad \left[e\cdot\left(\frac{4}{\pi}\right)^4\cdot\frac{1}{2}\right]^2 = 12.758802697682$$

The below expression uses the number 12 which applies directly to my energy pipe thesis as well as the dimensional construct of the Great Pyramid at Giza.

$$\left[\frac{\left(\frac{4}{\pi}\right)^4}{2}\cdot e\right]^2\cdot 12^2 - 1 = 1.836267588466\times 10^3 \qquad \frac{m_p}{m_e} = 1.836152755656\times 10^3$$

Note that 1 electron mass was subtracted to arrive at a ratio close to the proton/electron mass ratio.

Summary: The quantum connection of the Great Pyramid of Giza to the proton and electron was thoroughly established above. Perhaps the pyramid was built elsewhere and teleported to its present location. Finally, there are pyramids on the moon and mars and thus they likely served as power generators and quantum teleportation devices in the past.

Ω

REF:

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http://www.electrogravity.com