

QUANTUM GRAVITY

The Universal Electrogravitational Quantum Frequency Of The Universe

-by-

Jerry E. Bayles

Parameter Statements:

$$F_{EG} := 1.993291389 \cdot 10^{-50} \cdot \text{N} \quad v_{LM} := 8.542454612 \cdot 10^{-02} \cdot \text{m} \cdot \text{s}^{-1} \quad \alpha := 7.297353080 \cdot 10^{-03}$$

$$h := 6.626075500 \cdot 10^{-34} \cdot \text{J} \cdot \text{sec} \quad r := 5.291772490 \cdot 10^{-11} \cdot \text{m} \quad m_e := (9.109389700 \cdot 10^{-31}) \cdot \text{kg}$$

$$\text{massA} := m_e - \alpha \cdot m_e$$

$$\text{massB} := m_e - \alpha \cdot m_e$$

$$R1 := \frac{\text{massA}}{m_e}$$

$$R1 = 0.9927026469$$

$$R2 := \frac{\text{massB}}{m_e}$$

$$R2 = 0.9927026469$$

$$F_{EG}^2 = \frac{h^2 \cdot f_x^2}{r^2} \quad \text{has solution(s)} \quad \begin{cases} \left(\begin{array}{c} \frac{F_{EG} \cdot r}{h} \\ \frac{F_{EG} \cdot r}{h} \end{array} \right) & \text{if } h \neq 0 \\ 0 & \text{if } F_{EG} = 0 \wedge h = 0 \end{cases} \quad \text{for frequency } f_x$$

$$f_x := \frac{F_{EG} \cdot r}{h} \quad f_x = 1.5918992376 \times 10^{-27} \cdot \text{Hz} \quad \text{Frequency of the universe.}$$

$$\lambda_x := v_{LM} \cdot f_x^{-1} \quad \lambda_x = 5.3662030926 \times 10^{25} \cdot \text{m} \quad \text{Close to the size of the universe.}$$

(Non-Local Cross-Product Space Action)

$$\left[\begin{array}{c} \frac{i \cdot h \cdot f_x}{r} \\ r \\ 0 \cdot N \\ 0 \cdot N \end{array} \right] \times \left[\begin{array}{c} 0 \cdot N \\ \frac{i \cdot h \cdot f_x}{r} \\ r \\ 0 \cdot N \end{array} \right] \cdot R1 \cdot R2 = \left(\begin{array}{c} 0 \\ 0 \\ -3.9154342997 \times 10^{-100} \end{array} \right) N^2$$

Square root result is in imaginary non-local magnitude:

$$F_{GXi} := \sqrt{\left[\begin{pmatrix} \frac{i \cdot h \cdot f_x}{r} \\ \underline{0} \cdot N \\ \underline{0} \cdot N \end{pmatrix} \times \begin{pmatrix} \underline{0} \cdot N \\ \frac{i \cdot h \cdot f_x}{r} \\ \underline{0} \cdot N \end{pmatrix} \right] \cdot R1 \cdot R2} \quad F_{GXi} = \begin{pmatrix} \underline{0} \\ \underline{0} \\ \underline{1.9787456379i} \times 10^{-50} \end{pmatrix} \cdot N$$

The absolute value of gravitational force is in the real domain of space that is observable local space. (This is for two electrons separated by the distance of the n1 energy level of the hydrogen atom.)

$$F_{GXr} := \left| \sqrt{\left[\begin{pmatrix} \frac{i \cdot h \cdot f_x}{r} \\ \underline{0} \cdot N \\ \underline{0} \cdot N \end{pmatrix} \times \begin{pmatrix} \underline{0} \cdot N \\ \frac{i \cdot h \cdot f_x}{r} \\ \underline{0} \cdot N \end{pmatrix} \right] \cdot R1 \cdot R2} \right| \quad F_{GXr} = \underline{1.9787456379} \times 10^{-50} N$$

Where again, $f_x = \underline{1.5918992376} \times 10^{-27} \cdot \text{Hz}$

which is the new fundamental electrogravitational quantum frequency universal to all creation.

$$\text{BilYr} := \underline{1} \cdot \text{yr} \cdot \underline{1} \cdot 10^{09}$$

$$t_x := \frac{1}{f_x} \quad t_x = \underline{1.9906262841} \times 10^{10} \cdot \text{BilYr}$$

The above time is the lifespan defined by one cycle of the universe.

The above time cycle is huge compared to our universe's calculated age of today. Then we can expect that our universe will outlast the Sun and Earth by a very large amount of time.

The above calculations also suggest that we live in a cyclic universe and that there may indeed be a big "crunch" at the end of this cycle of time.

The Schrodinger equation in terms of energy is:

$$i \cdot \frac{\hbar}{2\pi} \cdot \Psi(r, t) = \frac{-\hbar^2}{2m} \cdot \nabla^2 \cdot \Psi(r, t) + V(r) \cdot \Psi(r, t)$$

where Ψ is the wavefunction that Schrodinger postulated as the required form to explain quantum action.

$$\Psi = A \cdot e^{i(k \cdot r - \omega \cdot t)} = A \cdot e^{[i(p \cdot r - E \cdot t)] \cdot \hbar^{-1}}$$

Energy is force times distance and in terms of energy divided by distance, force becomes:

$$\nabla \cdot \left[\frac{-\hbar^2}{2m} \cdot \nabla^2 \cdot \Psi(r, t) + V(r) \cdot \Psi(r, t) \right]$$

The expression for electrogravitational force in terms of two complete systems involving the Schrodinger equation becomes:

System 1	System 2	
$\left[\nabla \cdot \left[i \cdot \frac{\hbar}{2\pi} \cdot \Psi(r, t) \right] \right]$	$\cdot \mu_0 \cdot \left[\nabla \cdot \left[i \cdot \frac{\hbar}{2\pi} \cdot \Psi(r, t) \right] \right]$	
$m_e := 9.109389700 \cdot 10^{-31}$	$\hbar := 6.626075500 \cdot 10^{-34}$	$r_{LM} := 8.5149954167254 \cdot 10^{-03}$
$v_{LM} := 8.542454612 \cdot 10^{-02}$	$E_{LM} := m_e \cdot v_{LM}^2$	$A := 1$
$p := m_e \cdot v_{LM}$	$\mu_0 := 4 \cdot \pi \cdot 1 \cdot 10^{-07}$	$f_{LM} := 1.003224805 \cdot 10^{01}$
		$t_{LM} := f_{LM}^{-1}$
$numpts := 50$	$m1 := 0..numpts$	$n1 := 0..numpts$

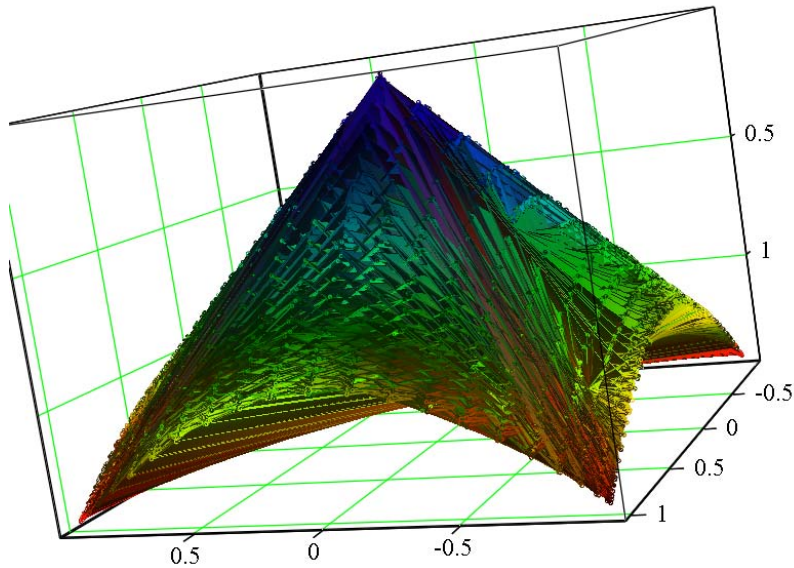
$$X_{m1, n1} := \text{Re} \left[A \cdot e^{- \left[i \cdot \left[\left(\frac{4}{\pi} \right)^2 \cdot p \cdot m1 \cdot r_{LM}^{-E_{LM} \cdot n1 \cdot t_{LM}} \right] \cdot \hbar^{-1} \right] \cdot N} \right]$$

For brevity, the Newton terms are inserted solely to show how we can arrive at a single Newton term.

$$Y_{m1, n1} := \text{Im} \left[A \cdot e^{- \left[i \cdot (p \cdot m1 \cdot r_{LM}^{-E_{LM} \cdot n1 \cdot t_{LM}}) \right] \cdot \hbar^{-1} \cdot N} \right]$$

$$Z_{m1, n1} := \sqrt{(X_{m1, n1})^2 + (Y_{m1, n1})^2}$$

The Great Pyramid At Giza



(X, Y, Z)

 $Z_{m1, n1} =$

1	^N
0.8429742918	
1.3478570051	
0.206279827	
1.2380408345	
0.9907413087	
0.9947746605	
0.7421318656	
1.3510039506	
0.6012137291	
1.0311259991	
1.1298440072	
0.9824720671	
...	

Taking the square root of the sum of the X and Y squares arrives at units of newton only and resolves the newton squared terms in previous editions of my electrogravitational theory. The gravitational result is also real which it must be to arrive at force in the observable universe. The non-local action is in the imaginary realm and is in terms of squared newton terms. Taking the square root of that action in absolute terms removes that difficulty. The overall result is that the actual universal quantum frequency of gravitation is extremely low indeed as shown in the previous section. The original frequency called f_{LM} is still viable but only in terms of the least quantum magnetic newton force unit.

The above plot may reveal that the Great Pyramid at Giza fits the Schrodinger gravitational analysis as shown above mathematically.

Ref: <http://www.electrogravity.com>

In the case of matter being continuously refreshed over time, fractals generated by iterating nonlinear mathematical expressions in the real and complex domain such as the Mandelbrot set, become applicable to the real world when nonlinear forces such as for gravity are examined. Stable as well as unstable areas are of interest if we are imitating gravitational fields. This would concern the operators of a craft utilizing electrogravitational fields for propulsion and lift in the Earth's gravitational field since areas of instability would exist in the gravitational field.

For fields in general, the Mandelbrot fractal in 3D shows that there are complex numbers that when iterated cause a buildup in magnitude towards infinity. If we look at the plot below for a 3D Mandelbrot plot we see that certain small areas yield very pronounced peaks which show that the magnitude at that small area grows very rapidly as the output of the Mandelbrot equation is circulated back to the input.

I remember back to an experiment done in one of the Electronics classes I attended where a ladder type transmission line was fed by an r. f. power transmitter at about 10 meters wavelength. We examined the standing waves along the unterminated line with a small flashlight bulb hooked to several turns of wire. This illustrated where the maximum and minimum current nodes were along the line. We also used a small neon bulb to determine where the maximum and minimum voltage nodes were. It was demonstrated by this experiment that the voltage and current nodes were 90 degrees apart. I remember that the instructor was careful to emphasize that the transmitter was operating on the leakage power through the final amplifier tube since the high voltage for the final was disconnected to prevent burning out the tube due to the amplitude of the reflected waves causing the output tube to either short out due to arcing or too much current being drawn from it due to the high potentials being reflected back from the standing waves on the transmission line.

In light of what I now know about the Mandelbrot set, I suspect that certain complex values of voltage or current amounting to a critical complex impedance may have went 'fractal' and the voltage and current at the input rose suddenly, thus burning out the tube if the power output tube was supplied with B+ on the plate.

The fractal rise of voltage at certain critical complex impedance's would also explain how tuning forks can be caused to deliver more energy into a receptor tuning fork when coupled in just the right distance and angle of the forks. This would represent a complex load at a critical coupling impedance that suddenly went fractal.

The critical complex impedance causing a sudden runaway of voltage and current might be the cause of large scale electrical grid blackouts, where the voltage would begin to swing violently thus causing plants to trip off line in a cascading sequence. This would not present itself as an easy problem to solve since various critical random load impedance's could possibly cause the fractal rise in voltage and current quite unexpectedly.

It is possible to apply the critical complex impedance concept to the Great Pyramid at Giza where we consider the possibility of the Great Pyramid extracting energy from its surroundings and converting the energy to a world grid of pyramidal receptors. By carefully tuning the resonance along the Grand Gallery, a critical impedance point at the entrance to the King's Chamber would began to provide a fractal rise in energy that theoretically would be unlimited. This would have to have very fine control to keep from destroying the transmission line characteristics of the Grand Gallery and the power converter coffer and resonance vaults above the King's chamber.

It has been established that fractals appear in nature as a result of a nonlinear change of energy or force over time and are not just a mathematical occurrence. This 'Sensitive dependence upon initial conditions' occurs by reason of a nonlinear feedback mechanism where we then add a complex constant during each feedback loop. Then the constant is incremented to allow for the next feedback loop. If the absolute value of the output of the process is larger than two, the complex constant is incremented and the loop is set into motion again. The equation is:

$$Z = Z^2 + C$$

where Z is initially set to a value of zero. C is in the form of:

$$C = X_i + Y_j$$

where X is a real number and Y is an imaginary number.

The 3D graph below illustrates how peaks form at critical values of complex numbers. This could apply to any complex set of values.

X := -2.00 Y := -2.00 i := 1,2..400 j := 1,2..400 step := .01

$$X_i := X + \sum_{n=1}^i \text{step}$$

$$Y_j := Y + \sum_{m=1}^j \text{step}$$

$$C_{i,j} := X_i + j \cdot Y_j$$

$$\text{ittr} := \underline{15}$$

```

zi,j :=
  zi,j ← 0
  N ← 0
  while N < ittr
    N ← N + 1
    continue if |zi,j| > 2
    zi,j ← (zi,j)2 + Ci,j
    N ← 0 if |zi,j| > 2
  zi,j

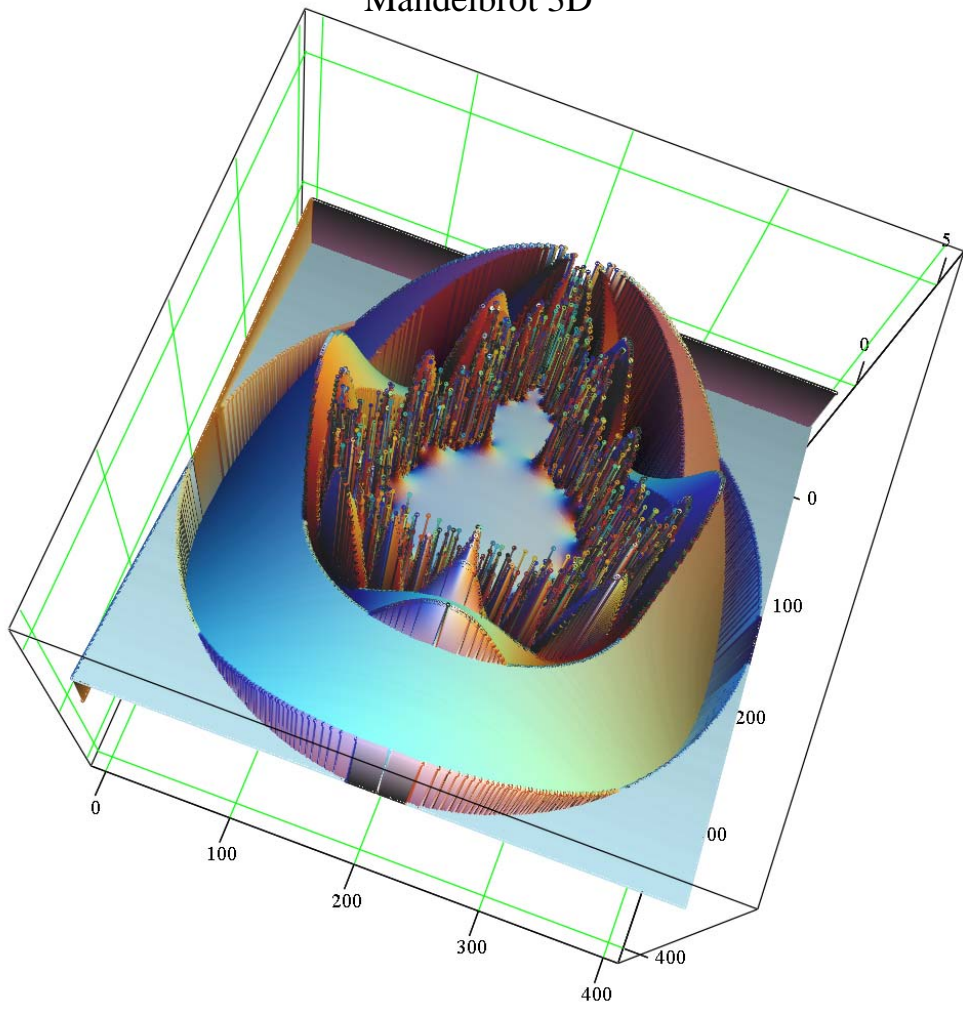
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This program begins with X and Y at -2.00 and steps X in increments of .01 until it reaches +2.00. Then Y is incremented by .01 to -1.99. This process is continued until both X and Y are equal to 2.00. During this process, z is checked to see if the absolute value exceeds 2.00. If so, the iteration falls through to the next loop. The above maximum iteration is 15 loops. This can be increased for more detail. The output z can represent energy, force or whatever is of interest.

$M_{i,j} := z_{i,j}$

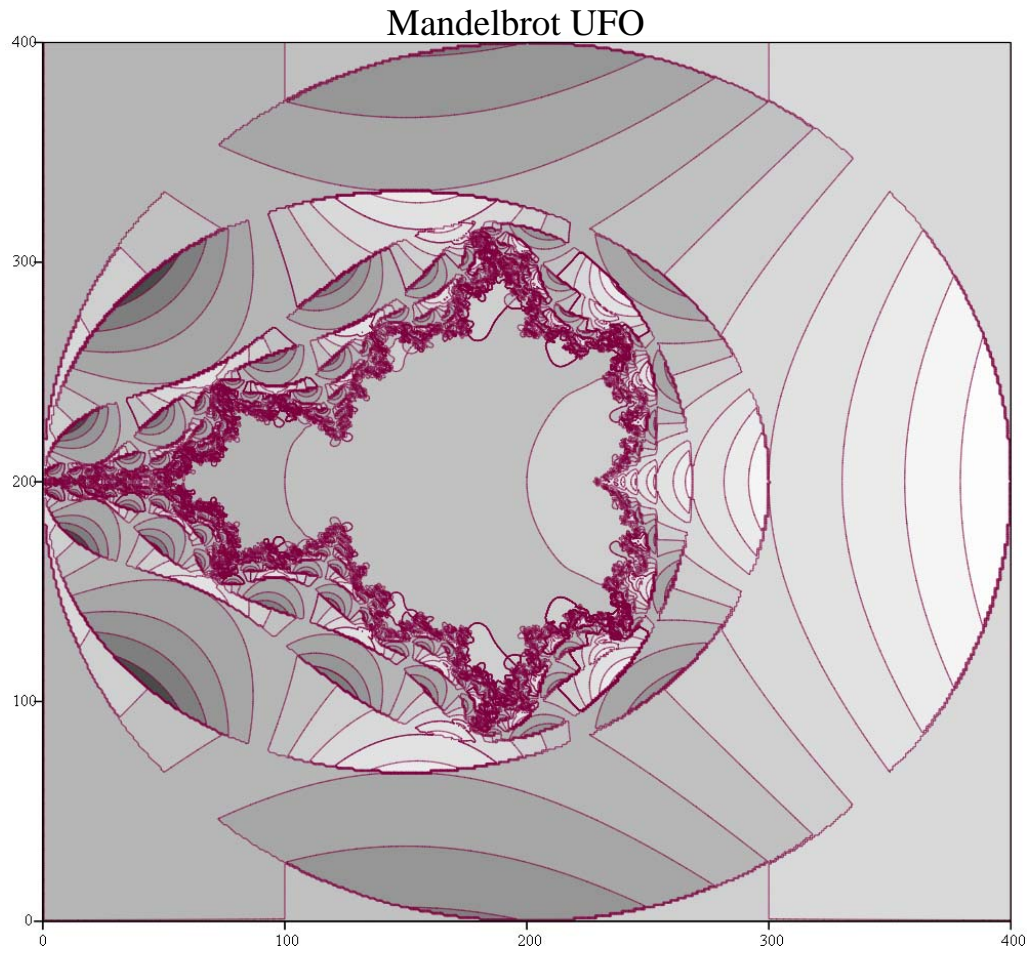
SURFACE PLOT

Mandelbrot 3D



M

CONTOUR PLOT



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Updated Dec. 20, 2012

New particle Predicted

$$c_v := \frac{2.997924580 \cdot 10^{08} \cdot \text{m}}{\text{sec}} \quad G_n := \frac{6.6742 \cdot 10^{-11} \cdot \text{m}^3}{\text{kg} \cdot \text{sec}^2} \quad \hbar := \frac{6.6260693 \cdot 10^{-34} \cdot \text{joule} \cdot \text{sec}}{\text{m}^2 \cdot \text{kg} \cdot \text{sec}^{-1}}$$

$$e_q := \frac{1.60217653 \cdot 10^{-19}}{\text{coul}} \quad G_{eV} := \frac{1 \cdot 10^{09}}{\text{V}} \quad \alpha := \frac{7.297353080 \cdot 10^{-03}}{\text{m}^2 \cdot \text{kg} \cdot \text{sec}^{-1}}$$

$$\text{PlankMass} := \sqrt{\frac{\hbar \cdot c_v}{G_n}} \quad \text{PlankMass} = \frac{5.4555523814 \times 10^{-8}}{\text{kg}}$$

$$H_K := \frac{1 \cdot \text{m}^2 \cdot \text{s}^{-2}}{\text{kg}} \quad \text{This constant of proportionality required for the Higgs Mass calculation.}$$

Higgs mass calculation:

$$\text{Higgs}_m := \frac{\text{PlankMass} \cdot H_K}{e \cdot c_v^2} \quad \text{Higgs}_m = \frac{2.2330725973 \times 10^{-25}}{\text{kg}}$$

Higgs mass-energy calculation:

$$\text{Higgs}_E := \text{Higgs}_m \cdot c_v^2 \quad \text{Higgs}_E = \frac{2.0069855614 \times 10^{-8}}{\text{J}}$$

Higgs energy in GeV:

$$\text{Higgs}_{G_{eV}} := \frac{\text{Higgs}_E}{e_q} \quad \text{Higgs}_{G_{eV}} = \frac{125.2661940664 \cdot \text{GeV}}{\text{V}}$$

The actual Higgs boson mass is determined by the recent findings of extensive tests performed at the Large Hadron Collider to be:

$$\begin{aligned} &125.3 \pm 0.4 \text{ (stat)} \pm 0.5 \text{ (sys)} \text{ GeV}/c^2, \\ &126.0 \pm 0.4 \text{ (stat)} \pm 0.4 \text{ (sys)} \text{ GeV}/c^2 \end{aligned} \quad \frac{\text{Higgs}_{G_{eV}} \cdot e_q}{c_v^2} = \frac{2.2330725973 \times 10^{-25}}{\text{kg}}$$

Since: Energy = charge·volts and mass = $\frac{\text{Energy}}{c^2}$

Reference:

http://en.wikipedia.org/wiki/Higgs_boson#Discovery_of_new_boson

The relation of the Higgs mass to the mass of a proton is:

$$m_p := 1.672623100 \cdot 10^{-27} \cdot \text{kg}$$

$$\text{Ratio} := \frac{\text{Higgs}_m \cdot \alpha}{m_p} \quad \text{Ratio} = \underline{0.9742493211} \quad \text{Where also:}$$

$$\frac{\text{PlankMass} \cdot H_K}{c^2 \cdot m_p} \cdot \alpha = \underline{2.6482842259} \quad \text{and,} \quad \left(\frac{4}{\pi}\right)^4 = \underline{2.6280914572}$$

Which is close to the golden ratio squared.

It is herein predicted that a new fundamental particle should be found at 340.5498858 GeV since:

$$\text{Higgs}_X := \frac{\text{PlankMass} \cdot H_K}{e_q}$$

$$\text{Higgs}_X = \underline{340.508819051} \cdot \text{GeV}$$

$$\frac{\text{Higgs}_X}{\text{Higgs}_{\text{GeV}}} = \underline{2.7182818285}$$

which is the natural number e. $e = \underline{2.7182818285}$

It may be the quantum boson of gravitation or dark matter/energy.

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The Fundamental Structure Of Electrogravitation

by
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Statement of constants:

$$\begin{aligned} \epsilon_0 &:= 8.854187817 \cdot 10^{-12} \cdot \text{farad} \cdot \text{m}^{-1} & \mu_0 &:= 4 \cdot \pi \cdot 1 \cdot 10^{-07} \cdot \text{henry} \cdot \text{m}^{-1} & \alpha &:= 7.297353080 \cdot 10^{-03} \\ K_{\text{prop}} &:= \alpha \cdot (\text{m}^2 \cdot \text{sec}^{-2}) & r_{n1} &:= 5.291772490 \cdot 10^{-11} \cdot \text{m} & c &:= 2.997924580 \cdot 10^{08} \cdot \text{m} \cdot \text{sec}^{-1} \\ q_0 &:= 1.602177330 \cdot 10^{-19} \cdot \text{coul} & m_e &:= 9.109389700 \cdot 10^{-31} \cdot \text{kg} & l_q &:= 2.817940920 \cdot 10^{-15} \cdot \text{m} \\ G_N &:= 6.672590000 \cdot 10^{-11} \cdot \text{N} \cdot \text{m}^2 \cdot \text{kg}^{-2} \end{aligned}$$

First, the electric force field between two electron charges at the radius of the n_1 energy level of the hydrogen atom is found.

$$F_E := \frac{q_0^2}{4 \cdot \pi \cdot \epsilon_0 \cdot (r_{n1})^2} \quad F_E = 8.238729466 \times 10^{-8} \text{N}$$

It will be shown that the electron mass is derived from the electric force field.

The next step simultaneously develops the mass of the electron and the magnetic force between two electron charges at a superposition distance equal to the radius of the n_1 energy level of the hydrogen atom. First, the right side of the above equation is multiplied by K_{prop} . Then the right side is divided by the velocity of light squared. Note that this force is also developed between a single electron and its superposition at a distance of r_{n1} .

$$F_{M1} := \frac{q_0^2 \cdot K_{\text{prop}}}{4 \cdot \pi \cdot \epsilon_0 \cdot l_q \cdot r_{n1} \cdot c^2} \quad F_{M1} = 1.2561846348 \times 10^{-22} \text{N}$$

The magnetic force equation contains the term c squared which is equal to the inverse of the product of ϵ_0 and μ_0 which was derived long ago as a consequence of Maxwell's equations. Then the F_M equation can be restated in the following format:

$$F_M := \frac{\mu_0 \cdot q_0^2 \cdot K_{\text{prop}}}{4 \cdot \pi \cdot l_q \cdot (r_{n1})} \quad F_M = 1.2561846347 \times 10^{-22} \text{N}$$

Note that the magnetic force is inversely proportional to radius only and not radius squared since l_q is constant.

where the mass of the electron is given in the above equation by:

$$\frac{\mu_0 \cdot q_0^2}{4 \cdot \pi \cdot l_q} = 9.1093896914 \times 10^{-31} \text{kg} \quad \text{where} \quad m_e = 9.1093897 \times 10^{-31} \text{kg}$$

Mass times acceleration equals force so the acceleration in this process is:

$$a_M := \frac{K_{\text{prop}}}{r_{n1}} \quad a_M = \underline{1.3789997763} \times 10^{\underline{8}} \frac{\text{m}}{\text{s}^2}$$

There have been more than a few instances where a proportionality constant like K_{prop} have come into play and it suggests that the system of MKS and SI are not complete. Somewhere, somehow, part of the constants involving μ_0 and ϵ_0 may reduce to numbers without units, for example. This suggests further that Maxwell's derivation of the speed of light may have included units such as meters/second that are not really there while the magnitude was right on the actual measured value.

It is a fact in the quantum realm that whatever can happen does happen and electrons can follow many different paths to any location in space instantly due to their quantum nature. The wavefunction in Schrödinger's energy equation predicts this as a fact. Measurements have verified this.

Quote: ***"Unlike a water wave, we are proposing that the electron wave spreads out to fill the Universe in an instant."***¹

The magnetic force between the superposition of an electron with itself is a system that can act instantly through the permeability constant of free space with another identical superpositioned electron force system. That action is what I have termed Electrogravitation.

$$F_{EG} := F_M \cdot \mu_0 \cdot F_M \quad F_{EG} = \underline{1.9829730774} \times 10^{\underline{-50}} \cdot \left(\text{N} \cdot \frac{\text{H}}{\text{m}} \cdot \text{N} \right) \quad \text{Quantum result.}$$

Since an observer cannot be in the two different locations of system one and two of the electrogravitational equation at the same instant, the net magnitude along with a force Newton^{*} is what will be experienced or measured with respect to the overall reaction.. The net result is felt as a single Newton since the overall local reaction is not changing with time or distance.

The Newtonian equation yields almost the same magnitude but due to the artificially contrived G units, it is allowed to produce a single Newton unit.

$$F_{NG} := \frac{G_N \cdot m_e^2}{r_{n1}^2} \quad F_{NG} = \underline{1.977291389} \times 10^{\underline{-50}} \cdot \text{N} \quad \text{Classical result.}$$

Q.E.D.

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Reference:

1. Cox, Brian & Forshaw, Jeff, The Quantum Universe, DaCapo Press, Copyright 2011, pp. 46-47.

* Each magnetic force system contributes $1/r$ for a combined $1/r^2$ reaction and μ_0 is constant also.

Let us examine the lowest energy level of the H-1 Hydrogen atom for the amount of force on the electron in that level exerted by the energy radiated by the proton's radiation at 1420 MHz. The equation in 115 below is the result of equations 112, 113 and 114 above. First the radius of the n1 energy level must be stated.

$$R_{n1} := 5.291772490 \cdot 10^{-11} \cdot \text{m} = \text{Bohr radius.} \quad \text{and} \quad f_{H1} := 1.420405 \cdot 10^{09} \cdot \text{Hz}$$

Then the f_{H1} force at the n1 energy level is calculated by the following equation where we do not assume the surface area of a sphere, ($A = 4\pi r^2$), but only the area of a plane surface defined by the square of the Bohr n1 radius.

$$\text{where,} \quad v_{H1\text{phase}} := f_{H1} \cdot 1 \cdot \text{m} \quad \text{or,} \quad v_{H1\text{phase}} = 1.420405 \times 10^9 \frac{\text{m}}{\text{s}} \quad (115)$$

$$\text{Finally:} \quad \lambda_{H1\text{phase}} := v_{H1\text{phase}} \cdot f_{H1}^{-1} \quad \lambda_{H1\text{phase}} = 1 \text{ m} \quad \text{where the phase velocity is above the speed of light.}$$

$$\text{Therefore:} \quad \text{Force}_{n1} := \frac{h \cdot v_{H1\text{phase}}^2}{(R_{n1})^2 \cdot c_v} \quad \text{where,} \quad \text{Force}_{n1} = 1.5924189135 \times 10^{-3} \cdot \text{newton}$$

The force above is throughout the n1 surface defined by R_{n1} squared. Therefore, the actual force on the much smaller electron Compton area can be found by multiplying the above force by the square of the product of the fine structure constant to arrive at the area of the related field area of the electron.

$$\text{Then:} \quad F_{en1} := \text{Force}_{n1} \cdot (\alpha)^2 \quad \text{or,} \quad F_{en1} = 8.4798475976 \times 10^{-8} \cdot \text{newton} \quad (116)$$

Next we calculate the electric field force due to the interaction of the field of the electron with the field of the proton at the n1 Bohr radius.

$$F_{En1} := \frac{q_o^2}{4 \cdot \pi \cdot \epsilon_o \cdot R_{n1}^2} \quad F_{En1} = 8.238729466 \times 10^{-8} \cdot \text{newton} \quad (117)$$

The force on the electron due to the energy of the radiating hyperfine electromagnetic frequency is a little more than necessary to counterbalance the coulomb electric field force. This is an alternative explanation as to why the electron cannot be pulled into the proton by the force of the electrostatic field and further, it establishes why it is that the first shell is located at the n1 radius. It is located where the outward force wave from the proton balances the inward electric field of force.

Therefore, the "orbital" picture of the electron totally gives way to the probability wave of where the electron is in the energy shell which agrees with the expected quantum result. The electron can be effectively sitting still and yet not be able to go any further towards the proton than allowed by the force balance point which holds the electron in the bottom of the energy valley very close to zero joules. It is thus desirable to consider the pressure wave from the proton to be energy that cancels the positive electric field energy of the electron with the proton pressure wave's negative energy. Or, put another way, the proton's negative field energy cancels the electrons positive field energy and the proton pressure wave cancels the electrostatic force field between the proton and the electron. Suddenly disturbing this delicate balancing act will unshield the pressure wave for a brief time and then the hyperfine frequency f_{H1} related to the pressure wave will radiate. It may be possible to cause this to happen over a much longer time.

I am going to ask the reader to fasten their mental seatbelts. The next result is astounding. At least it is to me.

The difference in the (-) energy pressure-wave force and the (+) energy electric field force at the Bohr radius on the electron divided into the energy of the n1 shell derives a distance ΔR_{n1} as:

$$\Delta R_{n1} := \frac{m_e \cdot (c_v \cdot \alpha)^2}{2 \cdot (F_{En1} - F_{En1})} \quad \Delta R_{n1} = \underline{9.0406892563} \times 10^{-10} \text{ m} \quad 118)$$

Then if we find the ratio of the ΔR_{n1} to the quantum De Broglie wavelength of the n1 shell, we arrive at a very interesting number.

$$\frac{\Delta R_{n1}}{2 \cdot \pi \cdot R_{n1}} = \underline{2.719070759} \quad \text{where,} \quad \frac{\Delta R_{n1}}{2 \cdot \pi \cdot R_{n1} \cdot (e)} = \underline{1.0002902313} \quad 119)$$

And where also: $e = \underline{2.7182818285}$ **which is the natural number e.**

This is a eureka moment! The natural number e is ubiquitous throughout physics as related to the growth and decay of many types of natural processes. In this case, a distance ΔR_{n1} divided by the natural number e yields the wavelength of the n1 (lowest energy level) of the Bohr 'orbital' of Hydrogen-1. Therefore, the proton pressure wave works to 'fix' the n1 foundation wavelength through the decay of ΔR_{n1} to R_{n1} which is controlled by e. The energy can be stated as a negative energy by reversing the order of the forces in the denominator above. This is shown below in the solution for energy based on equations 118 and 119 above.

$$\Delta E_{\text{diff}} := (e) \cdot (2 \cdot \pi \cdot R_{n1}) \cdot (F_{En1} - F_{en1}) \quad \Delta E_{\text{diff}} = \underline{-2.1792416174} \times 10^{-18} \text{ joule} \quad 120)$$

$$\text{Where,} \quad q_o^{-1} \cdot \Delta E_{\text{diff}} = \underline{-13.601750422} \text{ V}$$

The result is negative energy which is what I propose is coming from the proton as a pressure wave. It is this negative energy that may be used by UFO's to interact with the gravitational field of the Earth. It has been reported by numerous persons that electrical devices fail to work close to the presence of UFO energy fields. Negative field energy would cause just this sort of effect on positive energy devices that are electrically and/or magnetically operated. If we could isolate a lot of protons, we could build a source of negative energy. The trick is to keep electrons from getting close to cancel the negative energy field. Negative energy implies negative time and clocks have been known to lose time in ambient energy fields of the UFO's.

Recent news articles on television (Dec. 2012) shows a phenomena from a Russian video that demonstrates the freezing of hot water occurs quicker than if the water were cold. This is a well known phenomena but to see it in action is astounding. A man takes a pot of boiling water from his stove and moves to his balcony. The air temperature is close to minus 40 degrees Fahrenheit. He throws the water from the pot and viola! It turns into micro sized particles of snow in a showering cascade towards the ground.

The upshot is, the hot water atoms are very energetic, which of course includes the hydrogen atoms which are attached to oxygen atoms. The energetic hydrogen atoms suddenly lose their excited states of energy and radiate it outwards as microwave energy. What would the frequency of that microwave energy most likely be? I propose that it would most likely be the hyperfine frequency of the hydrogen atom.

$$f_{H1} = 1.420405 \times 10^9 \text{ Hz}$$

Further, there was also a news article in the same time-slot that showed ice blooms in the arctic ocean. These are caused when the air is much colder than the water and the water molecules expand suddenly over and over which eventually form ice that does resemble "flowers". Again, the same process where microwave energy is most likely radiated into space at f_{H1} above.

Jerry E. Bayles

Dec. 26, 2012

RELATED REFERENCES:

1. Dunn, Christopher, *The Giza Powerplant*, Copyright 1998 by Christopher P. Dunn, Publisher, Bear & Company, Inc.
2. Ibid; p. 186.
3. Ibid, p.168.
4. Ibid, p.155.
5. Ibid, pp 187-190.
6. Clifford, Martin, *Master Handbook of Electronic Tables and Formulas*, 5th Ed., Copyright 1992 by TAB Books, pp 212-213.
7. <http://www.electrogravity.com/index2.html>
8. Parker, Sybil P., *McGraw-Hill Dictionary of Scientific and Technical Terms*, 5th. ed., copyright 1994 by McGraw-Hill, Inc., p. 920.
9. Ref. 1, p 163.
10. P. W. Atkins & R. S. Friedman, *Molecular Quantum Mechanics*, 3rd. Ed., Copyright 1997 by Oxford University Press, pp 438-441.
11. Beiser, Arthur, *Modern Technical Physics*, Copyright 1966 by Cummings Publishing Company, Inc., p.491.
12. http://home.att.net/%7Ej.e.bayles/DualFreqEG/A_frequency4.pdf
13. <http://jlnaudin.free.fr/lifters/main.htm>
14. <http://jlnlabs.imars.com/cfr/index.htm>
15. <http://jlnlabs.imars.com/mahg/setup.htm>
16. <http://bmiklos2000.freeweb.hu/unipolar.htm>