

QUANTUM WAVEGUIDE RELATIVITY

--BY--

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ABSTRACT

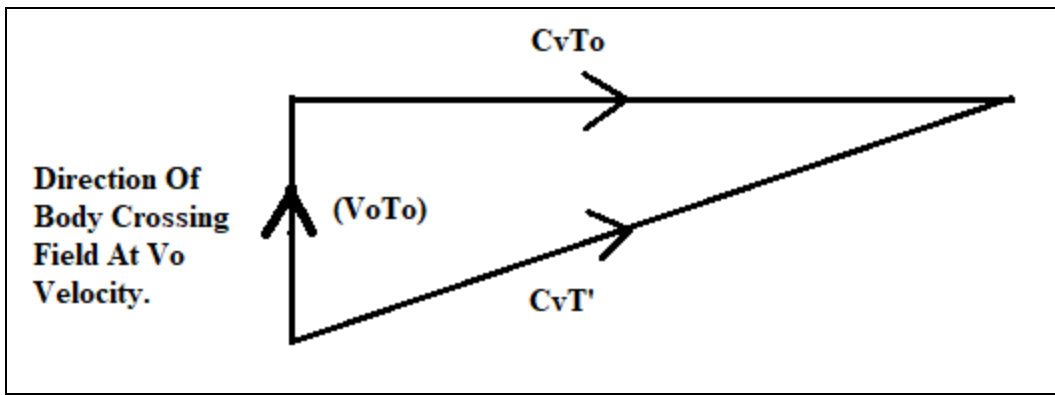
This paper presents an approach to Relativity that is based on a mixture of waveguide mechanics, quantum mechanics and a variation of the logic of Special Relativity. I view quantum jumps as occurring nearly instantly and at velocities in the range of 10^{18} meters per second via the phase velocity derived from the rotational group velocity equal to the square root of the atomic fine structure constant α in meter per second units. The waveguide approach is by reasoning that particles are standing waves of energy that form the entrance to a circular waveguide of the particles own making and the phase wave extends down the length of the waveguide to a conjugate particle. Therein is electrogravitational action and it is a force of attraction. Therefore, all matter is electromagnetic in construct and thus in the quantum waveguide there is a complex wave function that carry's the matter where the real portion follows the imaginary and the math of a transmission line and quantum particle motion is very similar in the overall solution methods. The UAP's and UFO's craft construction are likely constructed to operate within the fields described above. The craft has a field that is very much the field geometry of an electron. The hull would have a large amount of electronic charge, there would be segments carrying a transverse radial electric field between the rim and the center of the craft as well as a magnetic field encircling the shell parallel to the circumference. This would generate a moving mass field that could be caused to generate a quantum particle-like field that would have an imaginary and real component that creates the wave function to pull the craft along where the imaginary leads the real and the action rate would depend on the phase angle between the real and imaginary as shown in the addendum at the end of this paper. The craft could easily shift from real to imaginary space and pass through solid objects and bullets would pass through without damage. Finally, all material inside the field would have no inertia being in non-local space.

A field is moving at the speed of light from left to right in fig.1 and an object moving at a right angle across that field up the page at v_o speed. If t_o is 1 second up the page, the diagonal on the hypotenuse by the Pythagorean theorem has the time t' as shown below in equation #6. Parameters of calculation are first established below as:.

$$c_v := 2.997924580 \cdot 10^8 \cdot \frac{m}{s} \quad t_o := 1 \cdot s \quad v_o := 2.186 \cdot 10^7 \cdot i \cdot \frac{m}{s}$$

(Upper case = lower case in diagram and formulae.)

Fig. #1



The Pythagorean theorem yields the hypotenuse involving t' as:

$$\left(v_o^2 \cdot t_o^2 \right) + \left(c_v^2 \cdot t_o^2 \right) = t'^2 \cdot c_v^2 \quad 1)$$

$$\left(v_o^2 \cdot t_o^2 \right) = t'^2 \cdot c_v^2 - \left(c_v^2 \cdot t_o^2 \right) \quad 2)$$

$$\left(v_o^2 \cdot t_o^2 \right) = c_v^2 \cdot \left(t'^2 - t_o^2 \right) \quad 3)$$

$$\frac{\left(v_o^2 \cdot t_o^2 \right)}{c_v^2} = \left(t'^2 - t_o^2 \right) \quad 4)$$

Note that v_o is imaginary (i) as set above and this will be expanded on in further analysis.

Then t' squared is: $\frac{\left(v_o^2 \cdot t_o^2 \right)}{c_v^2} + t_o^2 = 0.99468309489274 s^2 \quad 5)$

Then finally t' is:
$$t' := t_0 \cdot \sqrt{\frac{v_0^2}{c_v^2} + 1} = 0.99733800433591 \text{ s} \quad 6)$$

This is not the form for t' as developed by Einstein. Einstein's result is self-limited by assuming the absolute limit for v_0 was the speed of light. This may have been due to the Michelson Morley experiment (1887)¹ proving that the direction of travel in space did not affect the velocity of light and thus the so called 'medium' did not affect the speed of light relative to the direction of an objects travel. Rather than say that there was no medium, he said that "*it most likely could not be detected*". That led to the later conclusion that there was an invisible thing called "space-time" that is bendable so as to not give up on the idea of there being something that could be used as a non-detectable actor that could be curved and could act directly to move mass.

The result in equation #6 above infers that v_0 can be greater than the speed of light without giving a complex and negative result for time t' . It also reveals that the velocity v_0 can be considered as being complex at the outset as for an electromagnetic standing wave parameter which represents the creation of a complex mass-field. Then all mass can be considered to be electromagnetic energy that is not propagating. Equation #6 can be identical to Einstein's result in equation #8 by restating equation #6 as:

Eq. 6 Restated:
$$t''_E := t_0 \cdot \left[\frac{(v_0 \cdot i)^2}{c_v^2} + 1 \right]^{\frac{-1}{2}} = 0.99735210174815 \text{ s} \quad 7)$$

Einstein format:
$$t'' := \frac{t_0}{\sqrt{1 - \frac{v_0^2}{c_v^2}}} \quad t'' = 0.99735210174815 \text{ s} \quad 8)$$

Where:
$$t_o \cdot \left[\frac{(v_o \cdot i)^2}{c_v^2} + 1 \right]^{\frac{-1}{2}} \quad \text{simplifies to} \quad \frac{t_o}{\sqrt{1 - \frac{v_o^2}{c_v^2}}} \quad 9)$$

Which is now in a form that removes the possibly *annoying* complex parameter involving v_o and sets the limiting speed for v_o at the speed of light as Einstein wanted it to be. Electromagnetic wave structure must have complex terms in its makeup. Einstein's final result does not show that, yet his assumption is founded on measurements involving light which is an electromagnetic wave/particle.

Non-local quantum action and local space reaction may be bridged or combined by waveguide math where phase velocity is greater than the speed of light and group velocity is less than the speed of light. In this approach, both the local and non-local exist within the same structure or boundary. Equation #6 may be employed in this approach by calculating the diameter of the Universe as shown below. In my online paper, "**Electrogravitation As A Unified Field Theory**", the least quantum velocity is presented as equal to the square root of the atomic fine structure constant α and the result is in meter per second units. Since there appears in electromagnetic theory an upper speed limit of travel equal to the speed of light in free space, it is quite reasonable to establish a lower limit to velocity in any space. Further, I consider all matter to be electromagnetic in structure where solid mass is composed of standing waves and free field radiation is not. Then using waveguide math that deals with a form of both may serve to manipulate both, not only distance but also for time. First, the below parameters are established for calculating the diameter of the universe.

$\alpha := (7.29735308 \cdot 10^{-03})$ Fine Structure Constant 10)

$c_v = 2.99792458 \times 10^8 \frac{m}{s}$ Speed of light with units 11)

$v_{LM} := \sqrt{\alpha \cdot m^2 \cdot s^{-2}} = 0.08542454612112 \frac{m}{s}$ Least Quantum Velocity 12)

$$v_p := \frac{c_v^2}{v_{LM}} \cdot \frac{1}{\pi} = 3.34895146232526 \times 10^{17} \frac{m}{s} \quad \text{Maximum Phase velocity} \quad 13)$$

$$\sqrt{\frac{v_p^2}{c_v^2} + 1} = 1.11708996439305 \times 10^9 \quad \text{Non-Local Gamma Transform } \Gamma_p \quad 14)$$

$$t_{QLM} := t_o \cdot \sqrt{\frac{v_p^2}{c_v^2} + 1} = 1.11708996439305 \times 10^9 \cdot s \quad 15)$$

$$d_U := v_p \cdot t_{QLM} = 3.74108006980299 \times 10^{26} m \quad (\text{Real Space}) \quad 16)$$

(Close to the assumed diameter of the Universe based on optical measurements.)

Again, if we assign an imaginary to the least quantum velocity v_{LM} we develop a distance in imaginary space which would fit the requirements for symmetry.

$$\alpha' := (-7.29735308 \cdot 10^{-03}) \quad \text{Fine Structure Constant} \quad 17)$$

$$c_v = 2.99792458 \times 10^8 \frac{m}{s} \quad \text{Speed of light with units} \quad 18)$$

$$v_{LM}' := \sqrt{\alpha' \cdot m^2 \cdot s^{-2}} = 0.08542454612112i \frac{m}{s} \quad \text{Least Quantum Velocity} \quad 19)$$

$$v_{p'} := \frac{c_v^2}{v_{LM}'} \cdot \frac{1}{\pi} = -3.34895146232526i \times 10^{17} \frac{m}{s} \quad \text{Maximum Phase velocity} \quad 20)$$

$$t_{QLM'} := t_o \cdot \sqrt{\frac{v_{p'}^2}{c_v^2} + 1} = 1.11708996439305i \times 10^9 \cdot \text{sec} \quad 21)$$

$$d_{U'} := v_{p'} \cdot t_{QLM} = -3.74108006980299i \times 10^{26} \text{ m} \quad (\text{Imaginary Space}) \quad 22)$$

Also close to the assumed diameter of the Universe based on optical measurements.

$$d_U - d_{U'} = \left(3.74108006980299 \times 10^{26} + 3.74108006980299i \times 10^{26} \right) \text{ m} \quad 23)$$

$$\arg(d_U - d_{U'}) = 45 \cdot \text{deg} \quad (\text{Complex Result}) \quad 24)$$

Building a Macroscopic Electron That Moves In Quantum Fashion:

If we consider a field developed at the input of a circular waveguide we can create a circular magnetic field and a radial electric field that is also slowly rotating since the center is offset a bit and is in rotation. It will have a time of rotation equal to t_{LM} as developed above in the math. Now consider that it is the size of a medium-sized flying saucer and the field is developed on the electrically charged surface of the saucer as described in the above for the waveguide. The inside of the field does not exist in local space since everything inside of the field is in non-local quantum space that has no real time or distance. Ergo: No Space-Time. Inertia does not exist since inertia and mass are only relevant to local space. NOW: The inertia-free insides of the UFO will follow the field wherever the field goes when the field jumps to a new point through non-local energy space. In my research, our normal space is refreshed at a 60 Hz rate and the field in *rotation creation rate* will be established at the same rate but 90 degrees offset. Then it will also be invisible to local space observers. Not only invisible, but able to pass through normal space matter with no interaction or hindrance. Saucers have been observed to fly into and out of oceans without splashing or making waves. When shot at, the bullets have no effect on some saucers that can shift their refresh rate as described. **Saucers can and do project themselves to a new location instantly.**

Equation #6 above is stated again as:

$$t_0 \cdot \sqrt{\frac{v_0^2}{c_v^2} + 1} = t' \quad (25)$$

Table 1 below demonstrates the velocity in imaginary space as the velocity is increasing from v_{LM} to an order of 13 in power. Table 2 is the squared result of Table 1.

$$n := 0, 1.. 15 \quad v(n) := v_{LM} \cdot 1 \cdot 10^n \quad (26)$$

$$(v(n))^1 =$$

	0	$\frac{m}{s}$
0	0.085424546121121i	
1	0.85424546121124i	
2	8.54245461211238i	
3	85.42454612112375i	
4	854.24546121123751i	
5	$8.54245461211237i \cdot 10^3$	
6	$8.54245461211238i \cdot 10^4$	
7	$8.54245461211238i \cdot 10^5$	
8	$8.54245461211237i \cdot 10^6$	
9	$8.54245461211238i \cdot 10^7$	
10	$8.54245461211238i \cdot 10^8$	
11	$8.54245461211238i \cdot 10^9$	
12	$8.54245461211237i \cdot 10^{10}$	
13	$8.54245461211238i \cdot 10^{11}$	
14	$8.54245461211237i \cdot 10^{12}$	
15	$8.54245461211237i \cdot 10^{13}$	

Table 1

$$v(n)^2 =$$

	0	$\frac{m^2}{s^2}$
0	$-7.29735308 \cdot 10^{-3}$	
1	-0.729735308	
2	-72.97353080000001	
3	$-7.29735308 \cdot 10^3$	
4	$-7.29735308 \cdot 10^5$	
5	$-7.29735308 \cdot 10^7$	
6	$-7.29735308 \cdot 10^9$	
7	$-7.29735308 \cdot 10^{11}$	
8	$-7.29735308 \cdot 10^{13}$	
9	$-7.29735308 \cdot 10^{15}$	
10	$-7.29735308 \cdot 10^{17}$	
11	$-7.29735308 \cdot 10^{19}$	
12	$-7.29735308 \cdot 10^{21}$	
13	$-7.29735308 \cdot 10^{23}$	
14	$-7.29735308 \cdot 10^{25}$	
15	$-7.29735308 \cdot 10^{27}$	

Table 2

Note that Table 2 could also represent increasing negative mass (dark) energy.

In the below tables, the square root of the Golden Ratio is employed as 1.26.

$$\frac{(v(n))^2}{c_v^2} + 1.26 =$$

	0
0	1.26
1	1.26
2	1.26
3	1.25999999999992
4	1.2599999999188
5	1.25999999918806
6	1.259999918806
7	1.25999188059969
8	1.25918805996865
9	1.17880599686495
10	-6.85940031350504
11	-810.68003135050446
12	-8.11927431350504 · 10 ⁴
13	-8.11939905350505 · 10 ⁶
14	-8.11940030090504 · 10 ⁸
15	-8.11940031337904 · 10 ¹⁰

Table 3

$$\sqrt{\frac{(v(n))^2}{c_v^2} + 1.26} =$$

	0
0	1.12249721603218
1	1.12249721603218
2	1.12249721603218
3	1.12249721603215
4	1.12249721602857
5	1.12249721567052
6	1.1224971798655
7	1.122493599358
8	1.12213549091393
9	1.08572832553312
10	2.61904568755588i
11	28.4724433681148i
12	284.94340338925281i
13	2.84945592236571i · 10 ³
14	2.8494561412496i · 10 ⁴
15	2.84945614343844i · 10 ⁵

27)

Table 4

Notice at above 1*10⁹, the result in Table 3 becomes negative while also increasing exponentially by an order of magnitude for each step. Also, in Table 4, at the start, the value is real, positive and begins to approach zero where it becomes imaginary after passing through zero. Also, instead of +1 under the radical, a value close to 4/π is used to arrive near the square root of the Golden Ratio which is the ratio of the height of the Great Pyramid to 1/2 its side length at the base.

Creating acoustic standing waves that are in phase with electromagnetic standing waves can be done by relying on the velocity of sound to fit the required frequency for the acoustic wave and the velocity of light for the electromagnetic waves. A saucer shape is perfect for this construct where a quarter wave between the rim and center of the saucer has the high voltage-low current at the center and the low voltage-high current at the rim. Then the acoustic wave is similarly constructed but it will be much lower in velocity but have the same shape and frequency. To this we add the requirement that the surface of the craft be charged with a coulomb charge of electrons so as to enable the creation of what I call a mass-field. This is stationary as described by the parameters so far. Now we cause a slight shift in the phase between the acoustic and electromagnetic waves and the craft begins to follow the mass-field. Suddenly changing the phase a larger amount and the craft seems to instantly move at tremendous speed and seemingly becomes invisible since it is also based on the cosmic refresh rate of 60 Hz as its fundamental acoustic vibration.

<https://www.electrogravity.com/files/fieldmassgeneration.pdf502b36.pdf>

The creation of what I call a "mass-field" is a quantum based field since the field represents a macroscopic electron which must embody quantum properties such as having a quantum wave function. That includes the ability to tunnel through matter instantly even though the energy level is less than the barrier represented by a higher energy level. The craft is following a wave function which exists through the energy barrier and is therefore not directly affected by the space the wave function travels through. This is also the process of superconductivity where an electron zips through a conductor without interacting with the atoms or molecules in that conductor. Again, the electron particle is following the wave function wave which controls the forward flow of the electron/particle wave.

Entanglement can occur when particles are split such as photons and they share the same wave function but in opposite phase and therefore interact no matter how far apart they are or how much other matter in local space exists between them. The split wave function(s) becomes phase locked and are also considered to be entangled as a result. This interaction must occur instantly and is observed to do so. The wave function is usually designated by the letter Ψ in Quantum physics, It is of interest that UFO's have been observed to 'split' apart and the two are under intelligent control just as the single UFO was.

The following is a derivation that proves the left side of the equation on page 758 of the University level textbook¹ concerning the basis of the Michelson-Morley experiment is equal to the right side in equation (39-3).

Special Relativity Reasoning Proof.

For t parallel divided by t perpendicular course time:

$$\text{Parallel} \times \frac{1}{\text{Perpendicular}} = \frac{1}{\text{Lorentz}}$$

Given:

$$\frac{2 \cdot L \cdot c}{c^2 - v^2} \cdot \frac{\sqrt{c^2 - v^2}}{2 \cdot L} = \frac{1}{\sqrt{1 - \left(\frac{v^2}{c^2}\right)}} \quad \text{and:} \quad \frac{(c^2 - v^2)^2}{(\sqrt{c^2 - v^2})^2} \quad \text{simplifies to} \quad c^2 - v^2$$

First, the $2L$ terms cancel.

$$\frac{c}{(c^2 - v^2)} = \frac{1}{\sqrt{c^2 - v^2}} \cdot \frac{1}{\sqrt{1 - \left(\frac{v^2}{c^2}\right)}}$$

Moving left side denominator and squaring process:

$$c^2 = \frac{c^2 - v^2}{1 - \left(\frac{v^2}{c^2}\right)} \quad \text{----->} \quad c^2 \cdot \left[1 - \left(\frac{v^2}{c^2}\right)\right] = c^2 - v^2$$

Then: $c^2 - \frac{(c^2 \cdot v^2)}{c^2} = c^2 - v^2$ simplifies to 1 Q.E.D.

¹ MODERN UNIVERSITY PHYSICS, Richards, Jr., James A.; Sears, Francis Weston; Wehr, M. Russell; Zemansky, Mark W.; Addison-Wesley Publishing Company, Copyright 1960.

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of this paper.

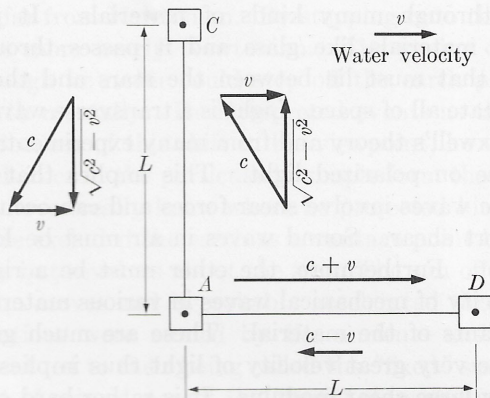


FIG. 39-1. Swimming analogy to the Michelson-Morley experiment.

each of the swimmers goes out and back on his course? Let the speed of each swimmer relative to the water be c , and let the water drift or velocity with respect to the earth be v . When the swimmer on the parallel course goes downstream, his velocity will add to that of the water, giving him a resultant velocity of $(c + v)$ with respect to the earth. The time required for him to swim the distance L from A to D is $L/(c + v)$. On his return, he must overcome the water drift. His net velocity then is $(c - v)$, and his return time is $L/(c - v)$. His total time is the sum of these two times. This is seen to depend upon the velocity of the water, and is given by

$$t_{\parallel} = \frac{L}{c + v} + \frac{L}{c - v} = \frac{2Lc}{c^2 - v^2}. \quad (39-1)$$

The other swimmer, going perpendicular to the water drift, spends the same time on each half of his trip, but he must head upstream if he is not to be carried away by the current. The component of his velocity that carries him toward his goal is $\sqrt{c^2 - v^2}$ with respect to the earth. The total time for his trip also depends on the water drift, and is

$$t_{\perp} = \frac{2L}{\sqrt{c^2 - v^2}}. \quad (39-2)$$

To see how these two times compare, we divide the parallel course time, Eq. (39-1), by the perpendicular course time, Eq. (39-2), and obtain

$$\frac{t_{\parallel}}{t_{\perp}} = \frac{2Lc}{c^2 - v^2} \cdot \frac{\sqrt{c^2 - v^2}}{2L} = \frac{1}{\sqrt{1 - (v^2/c^2)}}. \quad (39-3)$$

In still water $v = 0$, the ratio of the times is unity, and the race is a tie, as we would expect. In slowly moving water, the ratio is greater than unity and the swimmer on the perpendicular course wins; or, put differ-

The importance of commutators in quantum mechanics comes from the identification of physical observables with operators, not all of which commute with each other. It turns out that if two operators do not commute with each other, then the observables they represent cannot be determined simultaneously (see complementarity and the uncertainty principle). The fact that some operators do not commute with each other is a principal factor underlying the differences between quantum and classical mechanics.

The technical importance of a commutator is that the eigenfunctions of one operator are also eigenfunctions of any other operator with which it commutes.

Further information

The properties of commutators, and the consequences of noncommutation in quantum mechanics, are described in Chapters 5 and 6 of MQM. The standard texts on quantum mechanics describe the consequences in detail; see, for instance, Davydov (1976) and Bransden and Joachain (1989). For deeper accounts see Jauch (1968) and Salam and Wigner (1972). Take this concept further through the entry on matrix mechanics.

Complex wavefunctions

That a wavefunction is 'complex' simply means that it has two components, one of which we call its 'real' component and the other its 'imaginary' component. However, both components are equally 'real' in the sense of being present. In the diagrams in this section (but nowhere else), we draw the real component of the wavefunction in black and the imaginary component in blue. In general we should depict a wavefunction using both colours, as in Fig. C.13.

In many cases a spatial wavefunction has only one component, which is usually taken to be its 'real' component. We usually regard a spatial wavefunction that has only one component as a 'real' wavefunction. A particle in a box is described by wavefunctions with a single component (one that is proportional to $\sin x$), and most molecular orbitals are real.

All wavefunctions of definite and nonzero energy are complex if we allow for their time dependence, since a time-dependent wavefunction is the product of a spatial wavefunction ψ and a factor $e^{-iEt/\hbar}$. The rate at which a time-dependent wavefunction changes from real to imaginary is therefore determined by its energy: the higher the energy the faster the wavefunction oscillates between purely real and purely imaginary. In this sense (and perhaps all the other rich, familiar attributes of energy are consequences of this sense), 'energy' is the rate of modulation of a wavefunction from real to imaginary.

$$\Psi = \left(e^{i(kx - \frac{\hbar k^2}{2m}t)} \right) e^{-iEt/\hbar} = e^{i(kx - Et/\hbar)}$$
 Spatial Time (Time-dependent wavefunction)

$$\Psi = \psi(x) e^{-iEt/\hbar}$$
 Time independent $H\Psi = E\Psi$

See p.319

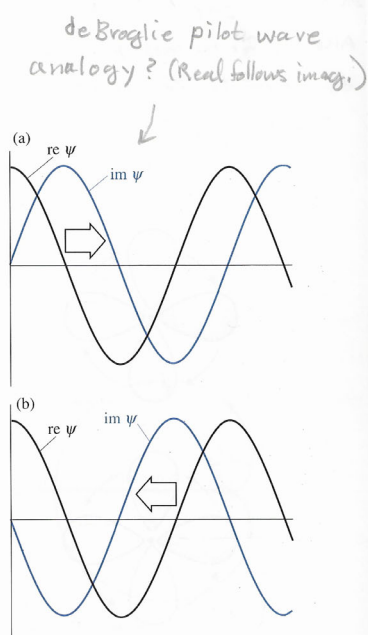


Fig. C.13 The real (black) and imaginary (blue) components of a free particle wavefunction. (a) The wavefunction corresponding to motion towards positive x ; (b) the wavefunction corresponding to motion towards negative x . Note how the real component effectively chases the imaginary.

The above is copied from page 61 of "QUANTA", a textbook by P.W. Atkins, Oxford University Press, 1991. Note that the imaginary leads the real portion of the wavefunction. A complex field surrounding a craft where the field represents an electron field geometry is a quantum field. (Real follows imaginary.)

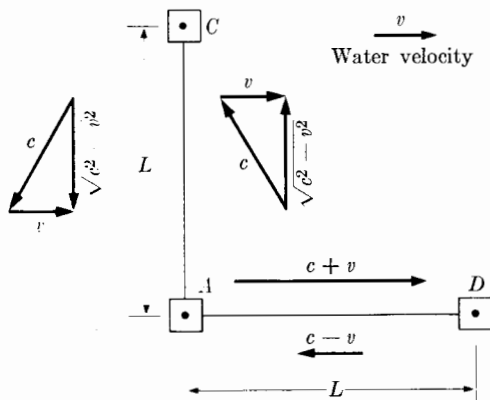


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Quantum Field Mass Generation

Since acceleration of charge generates electromagnetic waves, acceleration of mass may generate a quantum action that follows the form of Heisenberg's Uncertainty equations $h = \Delta E \times \Delta T$ and $h = \Delta MV \times \Delta \lambda$ as a matter wave containing a mass-field. A variable form of h is the result. While the electromagnetic wave structure is limited to the speed of light in free space, the quantum action is not. Acceleration is at the heart of the transfer of energy in both cases. The quantum case may be useful for the movement of mass in quantum non-local fashion. The motion may appear as being smooth and continuous, but may be in discrete steps with gaps as is the case for motion picture films.

This paper is based on the properties and geometry associated with the Faraday Magnetic Disk Generator and the base formula for calculating the axis to rim voltage based on the frequency of rotation of that disk.

$$\text{Voltage} = \omega \cdot \int_{r1}^{r2} \mathbf{B} \cdot \mathbf{r} \, dr$$

The related and inclusive parameters are expanded at length on the beginning of pages 1 and 2 to show that the mass field is created from the product of the magnetic permeability times charge squared all divided by distance of charge interaction which = mass. Further, how the parameters are related directly to the Heisenberg Equations parameters. For a standing wave, this generates or creates mass as a particle such as an electron or proton. In the flowing form, the mass-field in motion may be considered to be similar to a wave. The accelerated Faraday Disk creates a mass-wave orthogonal to the axis of rotation and the direction of rotation, as well as the direction of the magnetic flux which is parallel to the axis of rotation. The mass-wave increases in magnitude with the frequency of the rotation. The outgoing mass-wave has momentum and a momentum differential across the disk diameter creates a **force** proportional to the rate of acceleration. At the limit of acceleration, the direction of disk rotation is reversed as well as the magnetic field and the direction of force is maintained to provide force in the same direction. This follows the rules of the cross-product mathematically.

$$\begin{pmatrix} 1 \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ 1 \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \quad \text{and} \quad \begin{pmatrix} -1 \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ -1 \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix}$$

Creation of field mass (and particle mass via a standing wave.)

$$\Phi_{\text{mag}} := \text{volt} \cdot \text{sec} = 1 \text{ Wb} \quad \text{Amp} := \frac{\text{coul}}{\text{sec}} = 1 \text{ A} \quad f := 1 \cdot \text{Hz}$$

$$\frac{\Phi_{\text{mag}}}{\text{Amp}} = 1 \cdot \text{henry} \quad \mu_{\text{m}} := 1 \cdot \frac{\text{henry}}{\text{m}} \quad \omega_{\text{f}} := 2 \cdot \pi \cdot f$$

$$\text{mass} := \mu_{\text{m}} \cdot \left(\frac{\text{coul}^2}{\text{m}} \right) = 1 \text{ kg} \quad \left(\frac{\text{volt} \cdot \text{sec}^2}{\text{coul} \cdot \text{m}} \right) \cdot \frac{\text{coul}^2}{\text{m}} = 1 \text{ kg} \quad \text{vel} := \frac{\text{m}}{\text{sec}}$$

$$\frac{\text{coul} \cdot \text{sec}^2 \cdot \text{volt}}{\text{m}^2} = 1 \text{ kg} \quad \text{coul} \cdot \text{volt} = 1 \text{ J} \quad \text{mom} := \text{kg} \cdot \text{vel}$$

$$\frac{\text{coul} \cdot \text{volt}}{\text{vel}} = 1 \cdot \text{mom} \quad \mathbf{B_{\text{rmax}}} := 13200 \cdot \text{gauss} \quad \mathbf{K\&J \text{ Magnet Company.}}$$

<https://www.kjmagnetics.com/proddetail.asp?prod=RY046>

$$\omega_{\text{f}} \cdot \int_{0.003175 \cdot \text{m}}^{0.0254 \cdot \text{m}} \mathbf{B_{\text{rmax}}} \cdot (0.0254 \cdot \text{m}) \, \text{dm} = 6.6893747914 \times 10^{-5} \cdot \text{volt} \quad 1)$$

= Faraday disk voltage. 2)

$$\left[\omega_{\text{f}} \cdot \int_{0.003175 \cdot \text{m}}^{0.0254 \cdot \text{m}} \mathbf{B_{\text{rmax}}} \cdot (0.0254 \cdot \text{m}) \, \text{dm} \right] \cdot \frac{\text{coul} \cdot \text{sec}}{\text{m}} = 6.6893747914 \times 10^{-5} \cdot \text{mom}$$

Accelerating the magnet disks in rotational motion creates a force field apart from the magnetic disks due to the action of the (A) vector.

$$\text{Then:} \quad \frac{\text{d}}{\text{dsec}} \left[\left(\omega_{\text{f}} \cdot \int_{0.003175 \cdot \text{m}}^{0.0254 \cdot \text{m}} \mathbf{B_{\text{rmax}}} \, \text{dm} \right) \cdot \text{coul} \cdot \text{sec} \right] = 0.1843298074 \cdot \text{N} \quad 3)$$

2

$$\text{Avec} := \frac{\text{volt} \cdot \text{sec}}{\text{m}} = 1 \cdot \frac{\text{weber}}{\text{m}}$$

$$\text{Bvec} := \frac{\text{Avec}}{\text{m}} = 1 \text{ T}$$

$$\frac{\text{volt} \cdot \text{sec}}{\text{amp}} = 1 \cdot \text{henry}$$

$$\frac{\text{Avec}}{\text{m}} = 1 \text{ T}$$

$$\frac{\text{volt} \cdot \text{sec}}{\text{amp} \cdot \text{m}} = 1 \cdot \frac{\text{henry}}{\text{m}} \quad \text{Magnetic permeability}$$

Then also moving time into the numerator; (Amp = charge divided by time.),

$$\frac{\text{volt} \cdot \text{sec}^2}{\text{coul} \cdot \text{m}} = 1 \cdot \frac{\text{henry}}{\text{m}} \quad \text{Permeability of free space units}$$

Finally; $\left(\frac{\text{volt} \cdot \text{sec}^2}{\text{coul} \cdot \text{m}} \right) \cdot \frac{\text{coul}^2}{\text{m}} = 1 \text{ kg}$ **Mass is created out of charge and magnetic fields orthogonal to each other as a standing wave unit.**

Or; $\left(\frac{\text{volt} \cdot \text{sec}^2}{\text{m}} \right) \cdot \frac{\text{coul}}{\text{m}} = 1 \text{ kg}$ **Canceling (coul) in numerator and denominator. Then mass is created by charge and the magnetic permeability of free space.**

Where also; $h_{\text{var}} := \text{volt} \cdot \text{coul} \cdot \text{sec} = 1 \cdot \text{J} \cdot \text{sec} = \text{Plank Constant Units}$

$$\frac{d}{d\text{sec}} \left[\left(\omega_f \cdot \int_{0.003175 \cdot \text{m}}^{0.0254 \cdot \text{m}} \frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \text{dm} \right) \cdot \text{coul} \cdot \text{sec} \right] = 3.4631730041 \times 10^3 \cdot \text{N} \quad 4)$$

THEN: Plank constant units are part of creating a force field involving field mass in accelerated motion.

$$\frac{d}{d\text{sec}} \left[\left(\omega_f \cdot \int_{0.003175 \cdot \text{m}}^{0.0254 \cdot \text{m}} \frac{h_{\text{var}}}{\text{m}^2} \text{dm} \right) \cdot \text{sec} \right] = 1.731586502 \times 10^3 \cdot \text{N} \quad 5)$$

Brief Summation:

Equation #1 calculates the voltage between the rim and the axis of rotation shaft of a Faraday Disk style generator related to the initial boundary conditions above.

Equation #2 calculates a related field momentum associated with the rotation of the Faraday disk rotation as a field separate from the magnetic field of the disk proper.

Equation #3 calculates the strength of the force field that is separate from the physical magnetic disk being accelerated and this is due to the **Vector Magnetic Field Potential**, also known as the **A-vector**.

Accelerating the rotation rate of the magnet disks appears to create an orthogonal force to the axial vector of rotation based on that beginning orthogonal motion of the disks. Further, a sudden deceleration when the displacement is maximum of the pendulum at a standstill amounts to acceleration in the opposite direction of rotation and a force that moves the pendulum in the opposite direction.

This imply's that the energy gained by the acceleration of the magnetic disks creates a **quantum energy transfer** to the initial linear orthogonal motion of the pendulum containing the rotating magnetic disks and the pendulum swings a distance based on the rate of acceleration. Further, this is like lifting oneself by ones' own bootstraps. However, this energy transfer involves a momentum inducing force field that is decoupled from the originating local space involving the disk rotational motion through non-local quantum space into linear motion 90 degrees to the rotational plane of its origination. This is courtesy of the quantum **A-vector** which is orthogonal to the motion of the magnetic disk. The below equation is in the units of Plank's constant h which is momentum times wavelength. The non-local action figures into the action of rotational motion suddenly being able to transfer energy to a linear swing of the pendulum.

$$\Delta h := \left[\omega_f \cdot \int_{0.003175 \cdot m}^{0.0254 \cdot m} B_{rmax} \cdot (0.0254 \cdot m) \, dm \right] \cdot \text{coul} \cdot \text{sec} \quad 6)$$

$$\Delta h = 6.6893747914 \times 10^{-5} \cdot \text{J} \cdot \text{s}$$

I am suggesting that Plank's Constant h may be considered to be a variable (when in the form of Heisenberg's Uncertainty Principle) in regards to an accelerating decoupled mass-field where the Faraday Disk is changing its rate of rotation.

Note: Δh is a variable that depends on the frequency of rotation of the cylindrical magnet assembly.

Dividing the above equation by meters (m) and taking the derivative with respect to time of the entire equation arrives at force in the linear swing of the pendulum.

$$\text{FORCE}_h := \frac{d}{d\text{sec}} \left[\left(\omega_f \cdot \int_{0.003175 \cdot \text{m}}^{0.0254 \cdot \text{m}} \mathbf{B}_{r\text{max}} \, d\mathbf{m} \right) \cdot \text{coul} \cdot \text{sec} \right] \quad 7)$$

$$\text{FORCE}_h = 0.1843298074 \text{ N} \quad \text{By equation \#3 above.}$$

This establishes the connection to the quantum realm of the action of the increasing rotation rate of the magnetic disks to the linear offset of same said disks.

The Vector Magnetic Potential \mathbf{A} is embedded as part of equation #4 as:

$$\mathbf{A} := \frac{\text{volt} \cdot \text{sec}}{\text{m}} \quad 8)$$

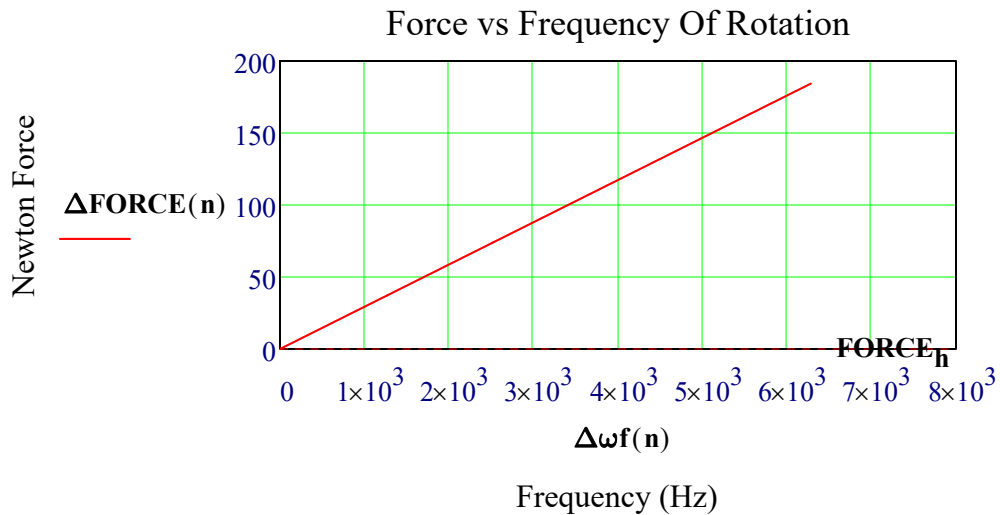
The Vector Magnetic Potential \mathbf{A} cannot be shielded against and exists as a potential apart from the magnetic field action that creates it. The above equation 6 shows that the transfer of energy related to the field of the accelerating magnetic disk rotation is transferred by the **Vector Magnetic Potential** to create a line of displacement of the entire disk pendulum 90 degrees to the axis of rotation of the magnetic disks..

Then the moving mass-field is the force field that moves the rotating disk magnets 90 degrees to the axis of rotation. The mass-field is associated with the \mathbf{A} -vector which is at the heart of the force field action. The rotating \mathbf{A} -Vector, magnetic \mathbf{B} field as well as the radial electric \mathbf{E} field are all shifted 90 degrees when leaving the primary rotating system. The reaction due to the outgoing momentum of the mass field action can be considered as 'pulling' the primary rotating disks along behind the mass-field.

Recent testing at a variable low frequency of cylindrical rotation yields an offset that is about + or - a quarter of an inch. Making the frequency an increasing variable will demonstrate the rapid gain of force output as shown below.

$$n := 1, 2.. 1000 \quad \Delta\omega f(n) := n \cdot \omega_f$$

$$\Delta\text{FORCE}(n) := \frac{d}{d\text{sec}} \left[\left(\Delta\omega f(n) \cdot \int_{0.003175 \cdot m}^{0.0254 \cdot m} B_{r\text{max}} \, dm \right) \cdot \text{coul} \cdot \text{sec} \right] \quad 9)$$



It is of interest herein that the Higgs Boson may not be the only method needed to create mass as shown in the above equations. Further, the general dependence on invoking the boson as the quantum force carrier is not necessary in non-local action. This is probably why so many contemporary theories in physics dealing with the gravitational action is at a dead end. In my own work, gravitational action is nearly instantaneous which eliminates the use of a boson connecting mechanism for the transfer of force or energy. I therefore feel that there is much information in science, and in particular physics of gravitation and mass creation, that is downright misleading. This may even be on purpose?

Below is a video of a test that demonstrates the magnetic mass horizontal offset force provided by accelerating the disk magnets in the rate of rotation.

<http://www.youtube.com/watch?v=uWrEyVybc5Y&t=83s>

A mass-field (kg) is generated by multiplying coulombs (q) times seconds (t) times the magnetic flux density (**B**) in volts times seconds. (**coul·sec·tesla = 1 kg**). This suggests that providing a charged surface over 1/2 of the magnets surface that is fixed in location towards the direction of the reaction emission of the magnetic force motion of the offset may increase the force directly proportional to the magnitude of the charge. This may be a method of creating lift as for video's of UFO's that were captured by the space station in the not too distant past. Spraying a charge onto a hollow insulated aluminum oxide cylinder (wrapped around the magnets) from a positive and negative high voltage generator (utilizing fixed electrodes 180 degrees apart) is being considered as of this writing. Equation #3 above states the idea in mathematical form. The UFO video shows the force field being generated around the craft. The field changes position on the craft according to various course corrections needed to steer and lift as necessary. It is apparently a very strong field since it is made visible caused by the near-craft ionization it produces. Perhaps a sudden very high voltage under the insulated crystalline (ceramic) skin of the craft at a chosen point would create a circular magnetic B flux with a radial electric E field and 90 degrees to them both would be the ponder motive A-vector magnetic mass-field moving outwards to provide the lifting force. This is likely only one method of UFO types of field propulsion.

Equation #9 above may be expanded on to allow for a physical means of directing the force outwards by creating a coulomb field that exists between the primary system of spinning charge and a target anode. **The equation below generates a coulomb field.**

$$Q_{\text{field}} := \text{farad} \cdot \text{volt} = 1 \text{ C} \quad 10)$$

The relative force in the field is:

$$\text{Force}_{Q_{\text{field}}} := Q_{\text{field}} \cdot \frac{\text{volt}}{\text{m}} = 1 \text{ N} \quad 11)$$

where volt/m is the electric E field between the anode and cathode directing the force.

Pages 0-6 above were presented to show the physical units involved in creating field mass and not in a strict numerical form of actual accepted values of the international S.I. values. The following work will be in actual S.I. numerical form as well as the related physical units.

The following **electrogravitational force** analysis will begin at the n1 energy level of the Bohr hydrogen atom where the **force magnetic** will be calculated first. The force magnetic between a two-atom system will then develop the **electrogravitational force** as a final result between two electrons at the n1 bohr energy level. Then the required electric field in volts will be developed which will equal the force magnetic for a balanced field where magnetic repulsion force equals the electric force of attraction.

$$v_{LM} := \sqrt{\alpha} \cdot \frac{m}{s} = 0.0854245461 \frac{m}{s} \quad (\text{Universal least quantum velocity allowed.}) \quad 12)$$

$$E_{LM} := h \cdot f_{LM} = 6.6474433014 \times 10^{-33} \text{ J} \quad \text{Let:} \quad 13)$$

$$F_{LM} := E_{LM} \cdot a_0^{-1} = 1.2561846364 \times 10^{-22} \text{ N} \quad \text{At Bohr level } n=1. \quad 14)$$

Then the electrogravitational force of attraction is:

$$F_{EG} := \frac{E_{LM}}{a_0} \cdot \frac{G_{\text{grav}}}{v_{LM}^4} \cdot \frac{E_{LM}}{a_0} = 1.9772913907 \times 10^{-50} \text{ N} \quad 15)$$

Compare to the standard Newtonian classic form:

$$F_G := m_e \cdot \left(\frac{G_{\text{grav}}}{a_0^2} \right) \cdot m_e = 1.977291389 \times 10^{-50} \text{ N} \quad 16)$$

A very close agreement in absolute magnitude to equation 15. Note that equations 13 and 14 *may* yield a complex electrogravitational force which subtracts from the energy of photons in space and all other matter that gravity interacts with. This is entropy.

The next step on page 8 will find the electric field in volts that will equal the force of the magnetic field.

First, let the electrical permittivity of free space (in units S.I.) be established as:

$$\epsilon_0 := 8.854187817 \cdot 10^{-12} \cdot \text{farad} \cdot \text{m}^{-1} \quad \text{and} \quad F_{\text{EV}} := F_{\text{LM}} \quad (17)$$

$$\text{Then: (Solve for } V_{\text{LE}}) \quad F_{\text{EV}} = \epsilon_0 \cdot V_{\text{LE}}^2 \quad (18)$$

$$\text{Or: } V_{\text{LE}} := \sqrt{\frac{F_{\text{EV}}}{\epsilon_0}} = 3.7666249057 \times 10^{-6} \text{ V} \quad (19)$$

$$E_{\text{LV}} := q_0 \cdot V_{\text{LE}} = 6.0348010345 \times 10^{-25} \text{ J} \quad (20)$$

$$f_{\text{LV}} := E_{\text{LV}} \cdot (h)^{-1} = 9.1076551037 \times 10^8 \cdot \text{Hz} \quad (21)$$

$$\frac{\sqrt{4 \cdot \pi \cdot f_{\text{LV}}}}{f_{\text{H1}}} - 1 = 1.2729993715 \quad \text{Where: } \frac{4}{\pi} = 1.2732395447 \quad (22)$$

The result is extremely close to the geometry of the Great Pyramid insofar as the frequency ratio of the hydrogen frequency and the frequency f_{LV} is concerned.

The below equation relates the geometry of the quantum electrogravitational standing wavelength λ_{LM} to the hyperfine frequency f_{H1} of atomic hydrogen and its electric field energy at the n1 energy level. This is shown equal to the magnetic force F_{LM} .

$$\frac{E_{\text{LV}}}{\left[\left(\frac{\lambda_{\text{LM}}}{2 \cdot \pi} \right) \cdot \sqrt{4 \cdot \pi} \right]} = 1.2561846267 \times 10^{-22} \text{ N} \quad \text{Field Electric:} \quad (23)$$

$$\text{Where: } F_{\text{LM}} = 1.2561846364 \times 10^{-22} \text{ N} \quad \text{Field magnetic} \quad (24)$$

The constant 4π is universal throughout geometry and physics must be included as a result. The constant 4π is in the geometric area of a sphere as $\text{Area} = 4\pi r^2$ for example. Also, for the force between electric charges, Q of an electric field, $F = Q^2/4\pi\epsilon_0 r^2$ as a further example. The constant 4π is ubiquitous in electronic and physics calculations. Below is some analysis involving 4π relevant to the above equations.

$$\frac{f_{LV}}{\sqrt{4 \cdot \pi}} = 2.56922207 \times 10^8 \cdot \mathbf{Hz} \quad \text{And:} \quad \frac{c_{\text{vel}} \cdot \alpha}{\lambda_{LM}} = 2.5692220734 \times 10^8 \cdot \mathbf{Hz} \quad (25)$$

$$\left(\frac{\sqrt{4 \cdot \pi}}{2 \cdot \pi} \right)^{-2} = 3.1415926536 \quad \text{And:} \quad \frac{1}{\left(\frac{\sqrt{4 \cdot \pi}}{2 \cdot \pi} \right)^2} = 3.1415926536 \quad (26)$$

$$\left(\frac{\lambda_{LM}}{2 \cdot \pi} \right) \cdot \sqrt{4 \cdot \pi} = 4.8040717154 \times 10^{-3} \mathbf{m} \quad \text{From equation 21 above.} \quad (27)$$

$$\text{Finally:} \quad \frac{\sqrt{4 \cdot \pi}}{2 \cdot \pi} \quad \text{expands to} \quad \pi^{-\frac{1}{2}} = 0.5641895835 \quad (28)$$

Equations 21 through 24 above relate the hyperfine frequency of the hydrogen atom f_{HI} and the electrogravitational wavelength λ_{LM} through the constant 4π as shown above in equations 25 through 28. The ratio $4/\pi$ is also related as the square of that ratio is equivalent to the Golden Ratio at $\Phi_{\text{gold}} = 1.621138938$. The hyperfine frequency f_{HI} of hydrogen is important to the operation of the Great Pyramid of Giza as a power producing machine and the ratio of $4/\pi$ is the ratio of the height to $1/2$ the length of one side of the Pyramid.

The pyramids produce frequencies that may link to the human brain such that communications between pyramids operating in the quantum non-local mode may connect human thought by acting as power amplifiers to project though information to the cosmos or between pyramids.

The Bohr n1 level has the electron momentum of:

$$P_{\text{BOHRn1}} := m_e \cdot (c_{\text{vel}} \cdot \alpha) = 1.9928533658 \times 10^{-24} \frac{\text{m} \cdot \text{kg}}{\text{s}} \quad 29)$$

Let a product be established such that the derivative of the product with the momentum in the Bohr n1 level respect to time will yield a force equal to the absolute value of quantum magnetic force, hf_{LM}/a_0 .

$$f_{\text{BLM}} := 2 \cdot \pi \cdot f_{\text{LM}} = 63.0344735457 \cdot \frac{\text{rad}}{\text{s}} \quad \text{Then:} \quad 30)$$

$$F_{\text{BLM}} := P_{\text{BOHRn1}} \cdot f_{\text{BLM}} = 1.2561846277 \times 10^{-22} \text{ N} \quad 31)$$

$$F_{\text{jerk}} := \frac{d}{ds} \left[P_{\text{BOHRn1}} \cdot f_{\text{BLM}} \right] = \frac{d}{ds} \left[1.9928533658 \times 10^{-24} \frac{\text{m} \cdot \text{kg}}{\text{s}} \cdot (f_{\text{BLM}}) \right] \quad 32)$$

$$F_{\text{jerk}} = -1.2561846277 \times 10^{-22} \cdot \frac{\text{N}}{\text{s}} \quad \text{Force of repulsion jump in n1.} \quad 33)$$

The derivative of acceleration is the 'jerk' or quantum 'jump'?

$$(F_{\text{jerk}}) \cdot \frac{G_{\text{grav}}}{v_{\text{LM}}^4} \cdot (F_{\text{jerk}}) = 1.9772913632 \times 10^{-50} \cdot \frac{\text{N}}{\text{s}^2} \quad 34)$$

Result: Negative (accelerating repulsive expansion force). Note that herein, positive is repulsion and negative is attraction except for the classical Newtonian gravitational expression above.

The electrogravitational force is negative (attraction force) if only one atomic jerk (electron jump) is involved in the interaction.

$$E_{LM} = 6.6474433014 \times 10^{-33} \text{ J} \quad \text{From equation 13 above.}$$

$$\text{Then: } \left(F_{\text{jerk}} \right) \cdot \frac{G_{\text{grav}}}{v_{LM}^4} \cdot \left(\frac{E_{LM}}{a_0} \right) = -1.977291377 \times 10^{-50} \frac{\text{m} \cdot \text{kg}}{\text{s}^3} \quad 35)$$

In the case of being ionized, the atomic hydrogen electron jumps would be more frequent based on the temperature and ambient radiation. The electrogravitational force would then increase accordingly and this may explain the rotation speed of galaxies being much greater than the amount of mass therein would justify. Then the total number of quantum jumps via external stimulation would affect both equation 34 and 35 above. There are an abundance of ultraviolet photons in space to supply stimulated atomic electron jumps as well as cosmic rays and atoms impacting each other.

A key electromagnetic frequency related to the n1 level of the hydrogen atom and the universal electrogravitational wavelength λ_{LM} is derived below.

$$v_{n1} := c_{\text{vel}} \cdot \alpha = 2.1876914167 \times 10^6 \frac{\text{m}}{\text{s}} \quad 36)$$

$$\text{Then: } f_{Gn1} := \frac{v_{n1}}{\lambda_{LM}} = 2.5692220734 \times 10^8 \cdot \text{Hz} \quad 37)$$

The above frequency is the electromagnetic frequency generated in n1 of the hydrogen atom due to the electrogravitational action related to λ_{LM} .

Put another way, impinging the hydrogen atom with the frequency shown, the electrogravitational wavelength λ_{LM} should be generated. Creating a beam of frequency f_{Gn1} and impinging it on matter of any type may develop a method of controlling the gravitational attraction that is acting on that matter.

On the next page is a chart of frequencies provided on LinkedIn.com by Crystal Sun.

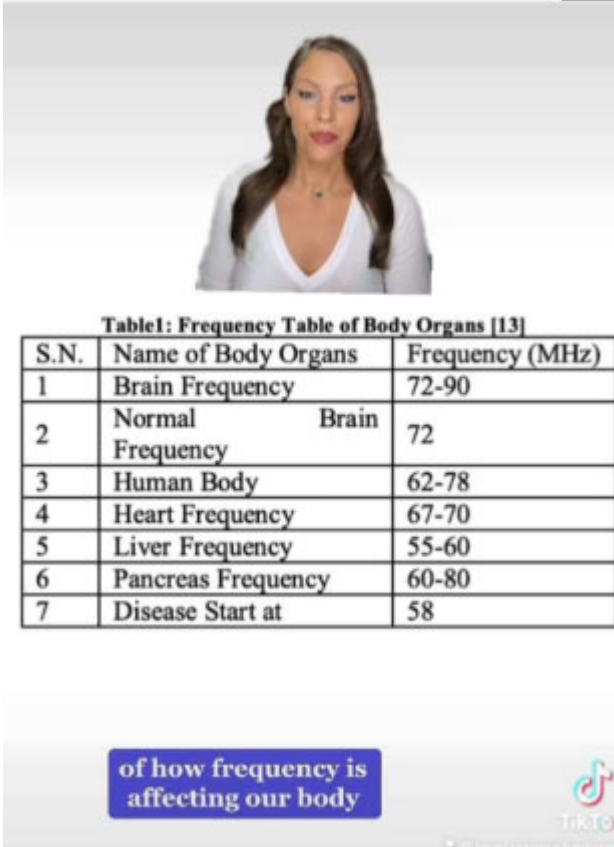


Table #1

The frequencies shown at the left were measured to be active in the parts of the human body as shown in the table by unknown researchers.

$$f_{BR} := \frac{f_{Gn1}}{\sqrt{4 \cdot \pi}} = 7.2476416582 \times 10^7 \cdot \text{Hz} \quad \#1,2,3 \text{ and } \#6 \text{ in the table above.} \quad (38)$$

$$\lambda_{BR} := \frac{v_{n1}}{f_{BR}} = 0.0301848728 \text{ m} \quad (39)$$

where:

$$\lambda_{LM} := \frac{\lambda_{BR}}{\sqrt{4 \cdot \pi}} = 8.514995412 \times 10^{-3} \text{ m} \quad \lambda_{LM} = 8.514995412 \times 10^{-3} \text{ m} \quad (40)$$

$$\text{where,} \quad 4 \cdot \frac{\pi}{\pi^2} = 1.2732395447 \quad \text{and,} \quad \frac{4}{\pi} = 1.2732395447 \quad (41)$$

The below result in equation 42 ties the square of the ratio of the key frequency in the n1 level of the hydrogen atom in equation 37 to the brain frequency in equation 38 above and in Table 1. Again is demonstrated the importance of the geometric constant of 4π in the overall frequency spectrum from the electrogravitational frequency and wavelength to the key frequency in the n1 level of the hydrogen atom. Included is the brain frequency as well as new frequency to be verified in equation 21 previous.

$$\left(\frac{f_{Gn1}}{f_{BR}}\right)^2 = 12.5663706144 \quad \text{Where: } 4 \cdot \pi = 12.5663706144 \quad 42)$$

Further, equations 20 through 23 **relate the geometry of the quantum electrogravitational standing wavelength λ_{LM} to the hyperfine frequency f_{HI} of atomic hydrogen and its electric field energy at the n1 energy level. This is shown equal to the magnetic force F_{LM} . Also, equation 22 relates these electric-field frequencies to the geometry of $4/\pi$ of the height to 1/2 the base length of the Great pyramid. The Great Pyramid quite likely functioned as a huge power generator working by resonance in its construction parameters with the Hyperfine Frequency of the hydrogen atom f_{HI} as the working energy source.**

I am reminded of a great movie titled "**Forbidden Planet**" which I was privileged to see on its debut in the latter 1950's starring Walter Pidgeon, Anne Francis, Leslie Nielsen with Warren Stevens and Robbie The Robot. Supposedly, the original occupants of the planet built a machine that tapped into the energy of the planet and used their brain to control that energy through an interface that amplified their brain wave frequency. That sounds like a Tesla coil without the brain control feature. Anyway, the ancient masters of technology that built and possibly even quantum - linked the pyramids with 'stationary waves', may have used the pyramids in just that fashion. Also to control the huge robot-style humanoids that worked for them as well as power the machinery that transported the huge monolithic stone blocks that were then cut and fitted with such precision that cannot be duplicated with today's technology.

In summary, the pyramids may have been using advanced alien technology wherein a very small amplitude electromagnetic signal controlled huge amounts of energy by phase-locking the higher frequency electromagnetic wavelength to the same quantum particle wavelength. This would require two different speeds of transmission. For the electromagnetic, the speed of light. For the acoustic, the speed in the medium of air or water, or even granite. In this process, the electromagnetic would be amplified by feeding energy into the acoustic vibration and vis-versa. A runaway could occur and a catastrophic explosion could be the result. Further, the process could have been taken over by evil-minded people and used to destroy other places that represented a threat or simply for control by conquest. Hence the burned and melted statues and buildings that exist today. The energy might have been beamed into the air to destroy enemy spacecraft or control the weather.

In the beginning: This paper started with the creation of a mass field from the top of page 2 as:

$$\frac{\text{volt} \cdot \text{sec}^2}{\text{coul} \cdot \text{m}} = 1 \cdot \frac{\text{henry}}{\text{m}} \quad \text{Permeability of free space units}$$

Finally; $\left(\frac{\text{volt} \cdot \text{sec}^2}{\text{coul} \cdot \text{m}} \right) \cdot \frac{\text{coul}^2}{\text{m}} = 1 \text{ kg}$ **Mass is created out of charge and magnetic fields orthogonal to each other as a standing wave unit.**

Or; $\left(\frac{\text{volt} \cdot \text{sec}^2}{\text{m}} \right) \cdot \frac{\text{coul}}{\text{m}} = 1 \text{ kg}$ **Canceling (coul) in numerator and denominator. Then mass is created by charge and the magnetic permeability of free space.**

Equation 4 ties the entire paper together when changing the rate of rotation creates a force field that creates a mass driver impact as in the Grand Gallery of the Great Pyramid. This creates an impact acoustic that releases electromagnetic energy from the hydrogen atom.

THE END

Jerry E. Bayles

December 30, 2022

Scroll Down For Constants Of Calculation

CONSTANTS OF CALCULATION

$\alpha \equiv 7.297353080 \cdot 10^{-03}$	Atomic fine structure constant.
$c_{\text{vel}} \equiv 2.997924580 \cdot 10^{08} \cdot \text{m} \cdot \text{s}^{-1}$	Speed of light in free space.
$f_{\text{H1}} \equiv 1.420405 \cdot 10^{09} \cdot \text{Hz}$	Hyperfine frequency of the hydrogen atom.
$\lambda_{\text{H1}} \equiv c_{\text{vel}} \cdot f_{\text{H1}}^{-1}$	Hyperfine wavelength of the hydrogen atom.
Where: $\lambda_{\text{H1}} = 0.2110612522 \text{ m}$	or: $\lambda_{\text{H1}} = 8.30949812 \cdot \text{in}$
$m_e \equiv 9.109389700 \cdot 10^{-31} \cdot \text{kg}$	Electron rest mass
$h \equiv 6.626075500 \cdot 10^{-34} \cdot \text{J} \cdot \text{s}$	Plank constant
$a_0 \equiv 5.291772490 \cdot 10^{-11} \cdot \text{m}$	Bohr radius of the hydrogen atom
$q_0 \equiv 1.602177330 \cdot 10^{-19} \cdot \text{C}$	Electron charge
$\mu_0 \equiv 4 \cdot \pi \cdot 1 \cdot 10^{-07} \cdot \text{H} \cdot \text{m}^{-1}$	Magnetic permeability of free space
$f_{\text{LM}} \equiv 1.003224805 \cdot 10^{01} \cdot \text{Hz}$	Quantum Standing wave frequency of gravity
$\lambda_{\text{LM}} \equiv 8.514995412 \cdot 10^{-03} \cdot \text{m}$	Quantum standing wavelength of gravity
$\Phi_Q \equiv 2.067834610 \cdot 10^{-15} \cdot \text{V} \cdot \text{s}$	Fluxoid quantum
$l_q \equiv 2.817940920 \cdot 10^{-15} \cdot \text{m}$	Classic electron radius
$R_H \equiv 2.581280560 \cdot 10^{04} \cdot \Omega$	Quantum Hall Ohm
$G_{\text{grav}} \equiv 6.67259 \cdot 10^{-11} \cdot \text{N} \cdot \text{m}^2 \cdot \text{kg}^{-2}$	Gravitational Constant

Saucer Design Proposal

FlyingSaucerField_2.xmcd

Jerry E. Bayles

The charged electrophorus surface (q_0^2) of a saucer having a changing circular magnetic B field orthogonal to a changing radial electric E field generates a field having the units of Plank's constant times the units of the pressure tensor $T_{u,v}$ of Einstein's General Relativity equation.

$$q_0 := 1 \cdot \text{coul}$$

$$B := 1 \cdot \frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \quad \text{also,} \quad A_{\text{vec}} := \frac{1 \cdot \text{volt} \cdot \text{sec}}{\text{m}}$$

$$E := 1 \cdot \frac{\text{volt}}{\text{m}}$$

$$h := 1 \cdot \text{joule} \cdot \text{sec}$$

The usual cross-product equation times the dot product of charge squared yields:

$$\left[\begin{pmatrix} B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ E \\ 0 \end{pmatrix} \right] \cdot \left[\begin{pmatrix} 0 \\ 0 \\ (q_0)^2 \end{pmatrix} \right] = 1 \cdot h \cdot \text{Pa} \quad \text{The result is not a vector.} \quad 1)$$

However, the simultaneous alternating B and E field result is a vector always in the same direction in the Z axis:

$$\left(\begin{pmatrix} q_0 \cdot B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ q_0 \cdot E \\ 0 \end{pmatrix} \right) = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \cdot h \cdot \text{Pa} \quad \text{or,} \quad \left(\begin{pmatrix} q_0 \cdot -B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ q_0 \cdot -E \\ 0 \end{pmatrix} \right) = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \cdot h \cdot \text{Pa} \quad 2)$$

Thus, the ac field produces mono directional vector in the Z direction.

The vector magnetic potential (A_{vec}) is key to the propulsion vector Z as: $(A_{\text{vec}} \cdot q_0) \cdot \frac{N}{m} = 1 \cdot h \cdot \text{Pa} \quad 3)$

QED

Allowing for a changing charge per second, we develop pressure times power where the power increases as the square of the frequency of the charge change. Both charges in the below equation are always the same polarity for the force vector to remain the same.

Example A

Example B

$$\begin{bmatrix} \frac{-q_0}{\text{sec}} \cdot \left(\frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \right) \\ 0 \\ 0 \end{bmatrix} \times \begin{bmatrix} 0 \\ \frac{-q_0}{\text{sec}} \cdot \left(\frac{\text{volt}}{\text{m}} \right) \\ 0 \end{bmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \text{ Pa} \cdot \text{watt} \qquad \begin{pmatrix} \frac{-q_0}{\text{sec}} \cdot -B \\ 0 \\ 0 \end{pmatrix} \times \begin{pmatrix} 0 \\ \frac{-q_0}{\text{sec}} \cdot -E \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \text{ Pa} \cdot \text{watt} \qquad 4)$$

In the above equations, examples A and B are identical in the result where example A shows that B is equal to $\left(\frac{\text{volt} \cdot \text{sec}}{\text{m}^2} \right)$ and E is equal to $\left(\frac{\text{volt}}{\text{m}} \right)$. Then the Example A equation can be restated as:

$$\begin{bmatrix} -q_0 \cdot \left(\frac{\text{volt}}{\text{m}^2} \right) \\ 0 \\ 0 \end{bmatrix} \times \begin{bmatrix} 0 \\ \frac{-q_0}{\text{sec}} \cdot \left(\frac{\text{volt}}{\text{m}} \right) \\ 0 \end{bmatrix} = \begin{pmatrix} 0 \\ 0 \\ 1 \end{pmatrix} \text{ Pa} \cdot \text{watt} \qquad \text{which shows that power is proportional to frequency.} \qquad 5)$$

(This is by reason that the inverse of time is frequency.)

Then the rate of charge change per second will determine the force field strength as well as the applied voltage.

In constructing our flying saucer, the first step is to consider a pair of circular metal conductors (plates) which are separated by some distance and which also have a dielectric medium between the two plates within that distance. This is a capacitor which will form the central circular floor of our flying saucer.

When charging a capacitor constructed as described above, there is a circulating magnetic flux generated within the space between the plates that is parallel to the plates and also 90 degrees to the electric field lines between the plates and 90 degrees to the plates.

The relevant equation for the field generated as described is given by reference 1 below:

Reference 1: Fleish, Daniel, A Student's Guide To Maxwell's Equations, Cambridge University Press, 2008, 2009, p.100

The next page develops an example for the nature of the field generated.

MagFluxGenTemp3.xmcd

	Superconductor?	Plate radius	Field radius
$C1 := 10 \cdot \text{nF}$	$R1 := 1.2 \cdot 10^{-07} \cdot \text{ohm}$	$r_o := 9 \cdot \text{in}$	$r := 9 \cdot \text{in}$
$\Delta V := 1 \cdot 10^{05} \cdot \text{volt}$	$\mu_o := 4 \cdot \pi \cdot 1 \cdot 10^{-07} \cdot \frac{\text{henry}}{\text{m}}$		$f := 1.420405 \cdot 10^{14} \cdot \text{Hz}$
$t := \frac{1}{f}$	$R1 = 1.2 \times 10^{-7} \Omega$	$C1 = 1 \times 10^{-8} \text{F}$	$\frac{t}{R1 \cdot C1} = 5.8668713031377$

Mylar has a dielectric constant K of 3.2 and a breakdown voltage of 7500 volts per mil.

$$C = \frac{\epsilon_o \cdot K \cdot \text{Area}}{d_o} \quad \text{Area} := \pi \cdot r_o^2 \quad \epsilon_o := 8.854187817 \cdot 10^{-12} \cdot \frac{\text{farad}}{\text{m}} \quad 6)$$

Where: $r_o = 9 \cdot \text{in}$ $r = 9 \cdot \text{in}$ $K_d := 3.2$

$$d_o := \frac{\epsilon_o \cdot (K_d) \cdot \text{Area}}{C1} \quad d_o = 18.3133298013145 \cdot \text{mil} \quad \text{where:} \quad 1 \cdot \text{mil} = 1 \times 10^{-3} \cdot \text{in} \quad 7)$$

Cap. voltage limit: $d_o \cdot 7500 \cdot \frac{\text{V}}{\text{mil}} = 1.3734997350986 \times 10^5 \text{V}$ @7500 v/mil for Mylar 8)

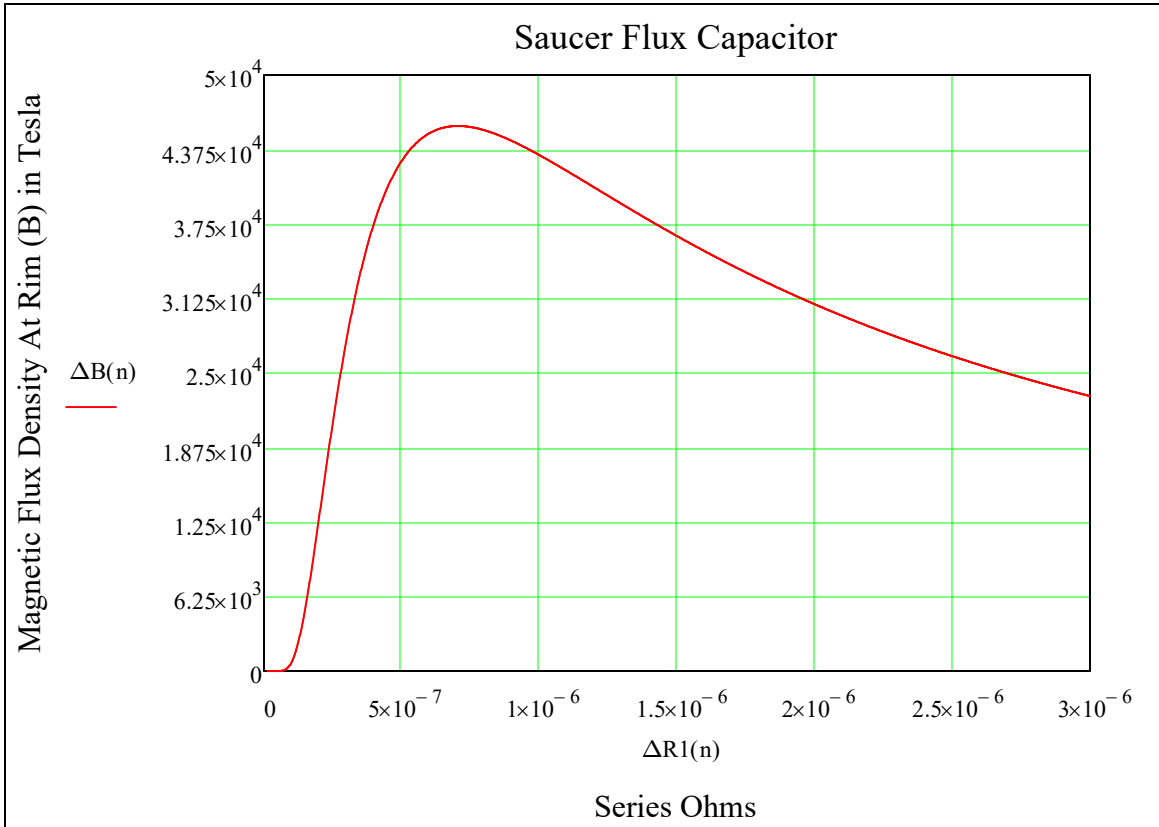
Given: $B = \left(\frac{\mu_o \cdot \Delta V}{2 \cdot \pi \cdot R1} \right) \cdot e^{-\left(\frac{t}{R1 \cdot C1} \right)} \cdot \left(\frac{r}{r_o^2} \right)$ $n := .1, .11 \dots 25$ $\Delta R1(n) := R1 \cdot n$ 9)

The following equation yields the magnetic flux density in Tesla (**B**) at the rim of a circular capacitor having plates of r_o in radius as a function of changing series ohms.

$$\Delta B(n) := \left(\frac{\mu_o \cdot \Delta V}{2 \cdot \pi \cdot \Delta R1(n)} \right) \cdot e^{-\left(\frac{t}{\Delta R1(n) \cdot C1} \right)} \cdot \left(\frac{r}{r_o^2} \right)$$

Decreasing R and t proportionally causes the magnetic flux B to increase proportionally. The smaller the saucer, the more the "punch". (Enough to take down anything humans have.)

Plot 1



$$\frac{t}{(R1) \cdot C1} = 5.8668713031377 \quad B_{\max} = \mu_o \cdot \frac{i_{\text{cur}}}{m} \quad \text{and} \quad H_a = \frac{i_{\text{cur}}}{m} \quad \text{or} \quad H_a = \frac{B_{\max}}{\mu_o} \quad 11)$$

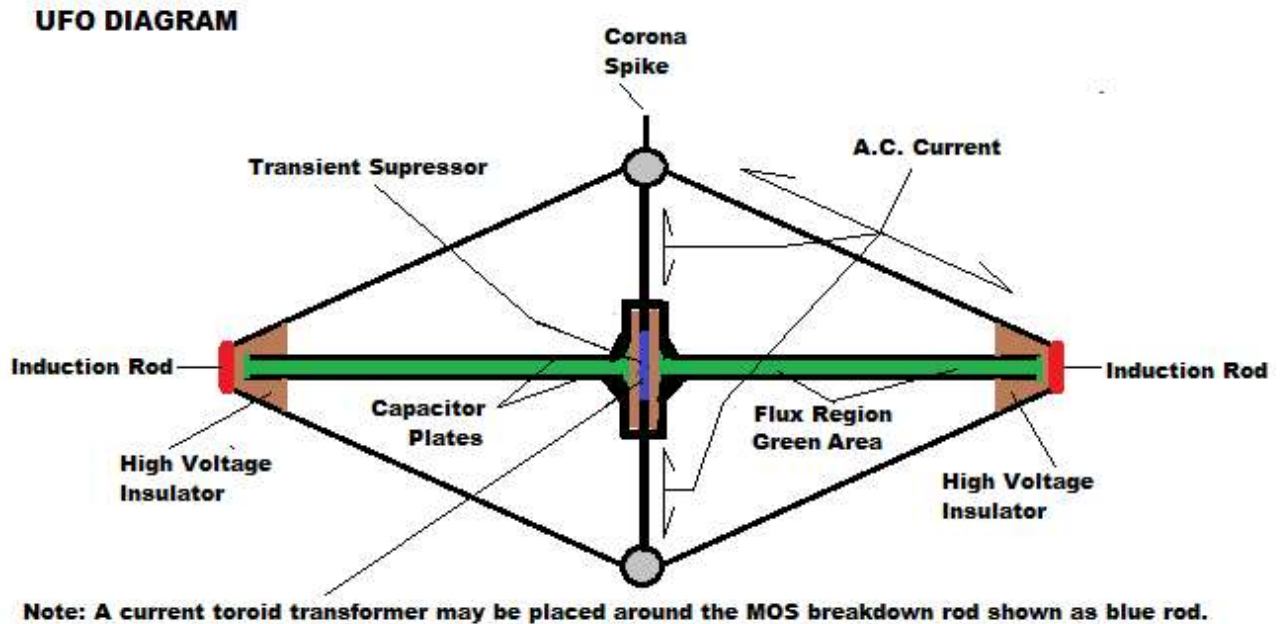
$$H_a := \frac{4.57 \cdot 10^{04} \cdot \text{tesla}}{\mu_o} \quad H_a = 3.6366904496498 \times 10^{10} \cdot \frac{\text{amp}}{m} \quad \frac{\Delta V}{r_o} \cdot H_a = 1.5908532150699 \times 10^{16} \cdot \frac{\text{watt}}{m^2} \quad 12)$$

$$\text{Press} := \mu_o \cdot (H_a)^2 \quad \text{Press} = 3.4710913660106 \times 10^{13} \cdot \frac{\text{lbf}}{\text{ft}^2} \quad \text{Press} = 1.66196753549 \times 10^{15} \cdot \frac{\text{newton}}{m^2}$$

$$Q_{\max} := C1 \cdot \Delta V \quad \Delta i_{\max} := \frac{Q_{\max}}{t} \quad \Delta i_{\max} = 1.420405 \times 10^{11} \cdot \text{amp} \quad 13)$$

The results yield huge pressure and power magnitudes. More than enough to create crop circles.

Figure 1 Complete saucer design showing external surface and total resonant circuit.



Surface of saucer could be a dielectric having a charged metal plate underneath that is charged and discharged at the same rate of the resonance frequency but having no direct connection to the outside surface of the craft. Further, the surface has powdered iron embedded into it to enhance the circular magnetic field strength.

The changing radial electric field would then generate a strong circular magnetic field around the surface of the craft 90 degrees to the radial electric field. The force field that provides the upwards propulsion would be the field containing the vector magnetic potential contained within equation 4 and 5 result on page 2 above.

Note the induction rods (red) are isolated electrically from the capacitor plates and serve to pick up the changing magnetic flux (green) and act as very low impedance source to the quarter wave surface of the craft. The ends at the corona spike will be the very high voltage point. Multiple quarter wavelengths could be employed for higher frequency modes of operation.

End

Least Quantum Electrogravitational Velocity Empirically Demonstrated To Exist

Magnetic Standing Wave Resonance Tests: Sept. 08, 2010: A Windows Movie Media (WMV) video that shows that the standing wave field around an inline pair of magnet disks has a non-parity in the left versus the right side of the disks at different speeds of rotation. Further, that the Schumann frequency is on the right side, and a frequency is on the left side such that the difference frequency multiplied by the circumference of the disks yields the electrogravitational fundamental velocity equal to the square root of the fine structure constant in meter per second units. Thus a strong validation of my "Electrogravitation As A Unified Field Theory" is the result.

GO: https://www.youtube.com/watch?v=YcVg_K3U-uk&feature=youtu.be

ALSO:

Related tests recorded on video establish that the magnetic field around spinning magnets show a difference in resonance frequency between a rising speed of rotation and a slowing speed of rotation such that the difference in the rate of rotation that causes resonance with nearby indicator magnets will yield the *least quantum electrogravitational velocity*, V_{LM} . This is equal to the square root of the fine quantum structure constant in meter per second units and is well established on my web site in numerous published works therein. The gravitational field of the Earth interacts vertically against the speed differential, where the change in momentum of the field in the magnetic disks per unit time adds and subtracts from the gravitational force to create the differential speed of rotation indication on the electronic counter. This is also related to how Faraday generators work wherein the spinning magnetic disks exhibit a field motion latency that "hangs" nearly motionless around the spinning disks, thus creating generator action with no other field provided. The field does move, and I propose that it moves at the rate of V_{LM} and in a direction set by the magnetic field polarity of the magnetic disks. Then gravity and V_{LM} are linked fundamentally and empirically as necessary to the gravitational force action.

GO: <https://www.youtube.com/watch?v=sqxHAFK1cTc&feature=youtu.be>

Not only is there an upper limit in local free space of the speed of light but also a least quantum velocity that limits the lowest speed in the quantum sense. This can be regarded as the *group velocity*. Thus the *phase velocity* is essentially infinite. It is interesting that waveguide action closely parallels quantum action as far as the math is concerned. In fact, the Special Theory of Relativity can directly be derived from waveguide math.

Jerry E. Bayles

Electrogravitational Mechanic In The Quest For Truth

Author "Electrogravity As A Unified Field Theory"

GO: <https://www.electrogravity.com/>

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Summation:

Mass fields are standing waves and therefore can be considered as quantum fields having complex real and imaginary electrical field components. Photons can be viewed as completing an oscillation frequency of one wave and then jumping to the next segment of space to repeat that process. The process is based on the wavelength times the frequency always being equal to the velocity of light in free space. Thus the concept of light is both a particle and a wave is justified by observation. Creating a standing wave around a craft that mirrors the geometry of the electron field allows the craft to make quantum jumps in near zero time just as for the ability of the electron during jumps from one shell to another and superconductivity and tunneling. In side of the field there is no inertia as for the case of the electron. Atomic shell transitions account for the difference in energy levels but not for the action of the electron having mass that can transfer almost instantly from one shell to another. This is outside of the rules of Special Relativity. Thus, the idea of a craft being able to transition from one location in space to another becomes understandable. Further, the craft forms its own waveguide "wormhole" to accomplish this transition and moves at an extreme phase velocity in that waveguide tunnel. It is in non-local space and is invisible to local space observation as well as being able to transit to its conjugate outlet instantly and through local space mass as the local space is separated from imaginary (non-local) space.

Conclusion: Electromagnetic energy and mass energy are interchangeable depending on the mechanism involved in their creation and useage. Finally, visual observation is a very limited tool for understanding the whole truth about the mechanism of the fields of local and non-local space. We know that there are imaginary and real aspects to an electrical field for instance, but we use indirect methods to measure their effects. Using the correct tools, we may enable our measurements to see directly imaginary and non-local space activity.

THE END