

Field Mass Generation and Control

Chapter 6

The famous two slit experiment proved that a particle can exist as a wave and yet still exhibit particle characteristics when the wavefunction is altered by an attempted measurement. Thus the wavefunction energy (potential) of the field can be said to convert directly to mass when the information in the wavefunction is changed. This is commonly referred to as wavefunction collapse which then removes the uncertainty of the position of the particle in question.

This chapter will expand on the concept of the mass equivalent in the quantum magnetic field and in particular, where that conversion from field energy to actual mass might yield a pondermotive force.

Also, the related concept in equation (220) on the next page is introduced wherein the electrostatic field energy is converted to field mass.

First, related constants are presented below.

$$\epsilon_0 := 8.854187817 \cdot 10^{-12} \cdot \frac{\text{farad}}{\text{m}} \quad \text{electrical permittivity of free space.}$$

$$q_0 := 1.602177330 \cdot 10^{-19} \cdot \text{coul} \quad \text{basic electronic charge.}$$

$$l_q := 2.817940920 \cdot 10^{-15} \cdot \text{m} \quad \text{classic electron radius.}$$

$$c := 2.997924580 \cdot 10^8 \cdot \frac{\text{m}}{\text{sec}} \quad \text{velocity of light in free space.}$$

$$\mu_0 := 1.256637061 \cdot 10^{-06} \cdot \frac{\text{henry}}{\text{m}} \quad \text{permeability of free space}$$

$$m_e := 9.109389700 \cdot 10^{-31} \cdot \text{kg} \quad \text{electron rest mass.}$$

Then the quantum electron electrostatic field energy is given as;

$$(220) \quad E_{\text{field}} := \frac{q_o^2}{4 \cdot \pi \cdot \epsilon_o \cdot l_q} \quad \text{or,} \quad E_{\text{field}} = 8.187111160863 \cdot 10^{-14} \cdot \text{joule}$$

The quantum electron field mass may be determined by dividing its electrostatic field energy by the speed of light squared, or;

$$(221) \quad M_{\text{field}} := \frac{E_{\text{field}}}{c^2} \quad \text{or,} \quad M_{\text{field}} = 9.109389692051423 \cdot 10^{-31} \cdot \text{kg}$$

This is exactly equivalent to an expression involving the magnetic permeability of free space instead of the electric permittivity of free space. This is shown below as;

$$(222) \quad M'_{\text{field}} := \frac{\mu_o \cdot q_o^2}{4 \cdot \pi \cdot l_q} \quad \text{or,} \quad M'_{\text{field}} = 9.109389688253174 \cdot 10^{-31} \cdot \text{kg}$$

Field mass is proportionally related to the magnetic field energy and if the magnetic field is in motion or flux, the field mass will follow proportionally to the magnitude of the field energy and thus be interpreted as an increase in magnetic flux. This field mass is basic to the electrogravitational field mass expression wherein mass = energy, or;

$$V_{\text{LM}} := 8.542454612 \cdot 10^{-02} \cdot \frac{\text{m}}{\text{sec}} \quad \text{and,} \quad m_e \cdot V_{\text{LM}}^2 = 6.647443298246635 \cdot 10^{-33} \cdot \text{joule}$$

then,

$$(223) \quad M_{\text{gravfield}} := \frac{m_e \cdot V_{\text{LM}}^2}{c^2}$$

$$\text{or,} \quad M_{\text{gravfield}} = 7.396278158407368 \cdot 10^{-50} \cdot \text{kg}$$

Once created, it may exist for all time as a least mass energy state and be additive over accumulated time. (Possibly an explanation of **cold dark matter**.)

The above analysis of electric field energy having a component magnetic field mass can be developed into a force field by moving the mass in some direction by allowing that field mass to acquire a rotational (V_{LM}) as well as vectored (V) velocity. The following equation will illustrate this concept.

$$(224) \quad F_{\text{field}} := \frac{M'_{\text{field}} \cdot V_{LM}^2}{l_q} \quad \text{or,}$$

then, $F_{\text{field}} = 2.358971844475206 \cdot 10^{-18} \cdot \text{newton}$

This quantum result can be expanded to include multiple field mass units and higher velocities.

Let $V := 1 \cdot 10^6 \cdot \frac{\text{m}}{\text{sec}}$

(This velocity would be the velocity of an electric field generated along a surface and the co-generated magnetic field-mass would travel with it which generates a real force field.)

$$(225) \quad F'_{\text{field}} := \frac{M'_{\text{field}} \cdot V_{LM} \cdot V}{l_q}$$

Then, $F'_{\text{field}} = 2.761468397106195 \cdot 10^{-11} \cdot \text{newton}$

Now let the field mass become influenced by the relativistic mass increase due to the force field approaching the velocity of light.

Let $V' := .9999999999999999 \cdot c$ Then,

$$(226) \quad M''_{\text{field}} := M'_{\text{field}} \cdot \left(1 - \frac{V'^2}{c^2}\right)^{-\frac{1}{2}} \quad \text{or,} \quad M''_{\text{field}} = 4.991413379158592 \cdot 10^{-23} \cdot \text{kg}$$

$$(227) \quad F_{\text{RelField}} := \frac{M''_{\text{field}} \cdot V_{\text{LM}} \cdot V}{I_{\text{q}}}$$

or, $F_{\text{RelField}} = 1.513123356794571 \cdot 10^{-3} \cdot \text{newton}$

where, $\frac{F_{\text{RelField}}}{F_{\text{field}}} = 6.414334110592964 \cdot 10^{14}$

This is a very large increase in force field units accomplished just by creating a switched series of point-charges across an insulated surface and that force field would keep on going after the electrostatic field race was terminated.

The electrogravitational field can be manipulated directly by the above force-field process since the components of the gravitational field are each special forms of the force field presented above.

First let the radius of interaction be set below as:

$$r_{n1} := 5.291772490 \cdot 10^{-11} \cdot \text{m} \quad \text{Then;}$$

$$(228) \quad F_{\text{gravfield}} := M'_{\text{field}} \cdot \frac{V_{\text{LM}}^2}{r_{n1}} \cdot \mu_o \cdot M'_{\text{field}} \cdot \frac{V_{\text{LM}}^2}{r_{n1}}$$

or for the quantum electrogravitational expression at the Bohr radius of Hydrogen,

$$F_{\text{gravfield}} = 1.982973075196837 \cdot 10^{-50} \cdot \text{newton}^2 \cdot \frac{\text{henry}}{\text{m}}$$

then substituting the expression for the relativistic force-field above;

$$(229) \quad F_{\text{rel gravfield}} := M'_{\text{field}} \cdot \frac{V_{\text{LM}}^2}{r_{n1}} \cdot \mu_o \cdot \frac{M''_{\text{field}} \cdot V_{\text{LM}} \cdot V}{r_{n1}}$$

or, $F_{\text{rel gravfield}} = 1.271945183662249 \cdot 10^{-35} \cdot \text{newton}^2 \cdot \frac{\text{henry}}{\text{m}}$

If the number of equivalent mass units are increased by boosting the number of charge units creating the force-field then the force field becomes quite large indeed. For instance a current of 1 amp would correspond to a multiplying factor of $1/q_0$.

The concept of charge-points being switched on can be extended to a design wherein the charge-points form a helix that has the distance between the charge-points equal to the fundamental quantum electrogravitational wavelength λ_{LM} , the distance between the helix turns would be equal to the radius of λ_{LM} and the general shape and length of the helix determined so as to allow for focusing the force field at a required point, (possibly a target), if necessary. (The helix turn radius becoming smaller with increasing helix length so as to allow the forward mass field momentum vector and the sideways mass field momentum vector to be brought to a beam of mass-field that would act directly on normal mass at some point distant. The action would be either one of repulsion or attraction according to the rotating phase in the beam in relation to the pulse rate of the switched E field that generates the mass-field beam. The degree of impact on the target would depend on the rise time of the switching pulse which is the same as saying the amount of step energy in each pulse of the mass-field beam. The quantum field-mass wavelength is defined below which is also the quantum electrogravitational wavelength.

Let Planks constant be stated: $h := 6.626075500 \cdot 10^{-34} \cdot \text{joule} \cdot \text{sec}$

Then,

$$(230) \quad \lambda_{LM} := \frac{h}{M_{\text{field}} \cdot V_{LM}} \quad \text{or,} \quad \lambda_{LM} = 8.514995423692462 \cdot 10^{-3} \cdot \text{m}$$

An ideal shape for controlling and generating the mass-field beam would be the shape common to many UFO shapes such as two Petri dishes joined at the edges to form a closed paraboloid surface. Then a computer controlled multiplexed switching system would energize surface dots in such a manner as to create not only helix patterns that would run from the outside edge towards the center but any pattern that was useful for whatever purpose. Thus not only would a form of swept or fixed focused electrogravitational propulsion be possible but tractor or repulsion beams could also be formed interspersed with the timing of the normal propulsion beam.

The surface of the craft would not be a conductor but a surface covered with conductive dots that would be spaced from each other the proper electrogravitational wavelength and of the proper square dimension each where each side of the square dot would correspond to the radius associated with the normal electrogravitational wavelength. Each dot would become electrically charged in its turn and then switched off at the proper time to accomplish the proper focusing of the mass-field beam.

The mass-field has the vectored direction realized by the contribution of the helix forward pattern velocity and the pattern radial velocity as well as the local system velocity relative to another system at rest in an inertial frame of reference.

Further consideration of field mass generation concerns the concept of translation of electrogravitational energy gained by a fall through the electrogravitational force field and that there exists the possibility of a latency involving the conversion of the kinetic energy gained by that fall to a rotational gain in energy corresponding to a time lapse equal to t_{LM} or the quantum electrogravitational period related to the inverse of the quantum electrogravitational frequency f_{LM} . The frequency and time are constructed in equation (231) below.

$$(231) \quad f_{LM} := \frac{M_{\text{field}} \cdot V_{LM}^2}{h} \quad \text{or, } f_{LM} = 10.03224803648295 \cdot \text{Hz}$$

$$t_{LM} := \frac{1}{f_{LM}} \quad \text{or, } t_{LM} = 0.099678556228218 \cdot \text{sec}$$

This energy conversion latency of linear to rotational inertia has been demonstrated by this author in an experiment recently performed. It can be postulated that any step change of energy may be converted to a probabilistic form of energy distribution involving a conversion of linear to rotational motion where as in the case of atomic fission, the final conversion result may be radiation at chance levels accompanied by rotation energies wherein the sum of the two equal the original energy step function.

Some of the radiation may induce rotational inertial forces in neighboring particles and at high enough levels, space-time itself may collapse in the direction of the main energy step location due to the relativistic velocities associated with adjacent particle participation in the main energy step function. This relativistic space-time compression due to a sudden increase of local mass-field was examined in the previous relativistic field equations (97) and (98) on pages 44 and 45.

If the rate of change of energy is fast enough as in a nearly ideal step function the impulse function generated is equivalent to a large change in mass which will start the relativistic increase in mass with the corresponding increase in implied velocity increase which further causes a reduction in the inertial radius which causes an increase in the apparent relative velocity, and so on. If strong enough initially, the impulse would cause the mass-field to go into imaginary space since the implied velocity would exceed the velocity of light and the craft that was generating the

mass-field would simply disappear from normal space-time.

There exists a motion picture of a previous atom bomb blast where the region around the epicenter of the blast appears to momentarily shrink for a small part of a second before the main blast takes over. It is postulated herein that this may be further evidence of the linear to rotational energy conversion latency being tied to a change in space-time which in this case is a fairly large scale example.

Proper control of this linear to rotational energy conversion function $f(t_{LM})$ may result in a form of propulsion that could take humanity to the stars.