The Structure of an Electron
A Fractal Photon Torus

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An electron is a type of photon. The shape of an electron is predicted to be a torus. Toroidal rings align to form a fiber. The fiber mass is the mass of a photon or electron or atomic mass units. The central core of the fiber tube is filled with ether. Ether is like air in a tyre. This mass of contained ether is obtained from the ether constant ratio. The ether inside the photon tube is comprised of 186-ether torus units. The rotation velocity of the 186-ether torus equals the von Klitzing constant. The pulsation of each 186-ether torus in sequence is suggested to tip the torus and cause rotation. The slowed velocity spin of each 186-torus times the number of ether particles contained in the tube is the speed of light, *c*. The ether at large is spun by the rotating torus. This creates an ether flux thru the centre of the torus. The math descriptors of an electron torus are presented in this paper. Electron tori have mass and contained 186-ether. The electron or photon *particle* is the source of ether *waves* measured as light, heat, electricity and magnetism. The 186-ether acceleration is gravity or voltage. The von Klitzing constant, points to a pushing acceleration. Current squared is the force exerted by one 186- ether mass on an electron or photon mass that scaffolds it.

Introduction

Aether in ancient Greek represents a creative shining light. In the solid elastic theory of early modern science an ether was argued to be a homogenous medium responsible for everything from gravity and the transmission of light to heat and electric charge.

The *ether* I conceive of is a pre-existent medium *out of which* space-time's heavenly bodies are engendered, *basic to* light as electro-magnetism, to the atom, and so, basic to the gravitational forces in which bodies float suspended and in which we all exist in its dense etheric sea; thus the material world at any scale would have to be *less dense* than the etheric.

186-Ether

$$E = \frac{Gmm}{r} = \frac{c^2 \times q \times q}{r} \quad \text{[Assumption]}$$

If elementary charge,

$q = 1.60217653 \times 10^{-19}\,C$

Then $m = 1.859222909 \times 10^{-9}\,kg$ ether

If charge, $q = 1.0C$

Then $m = 1.160435741 \times 10^{10}\,kg$ ether

In other words $6.24150948 \times 10^{18}\,particles$ of 186-ether comprises $1.0C$ charge and equals $1.160435741 \times 10^{10}\,kg$ etheric mass.

The first practical breakthrough in this understanding came when, *pace* Newton, I observed that the universal gravitational constant, *G*, can be factored into the ratio, $G = R\,c^2 / M$ to produce an ether constant ratio, R/M. The ether constant ratio opened the gates on new correspondences and unities within the measurable physical world.

$$c^2 / G = M / R = 1.346611109 \times 10^{27}\,\text{kg/m}$$

The Etheric Field

Myriads of $1.859222909 \times 10^{-9}\,\text{kg}$ comprise the etheric sea and each particle is represented as,

$$\frac{M}{R} = \frac{1.859222909 \times 10^{-9}}{1.380668038 \times 10^{-36}} = 1.346611109 \times 10^{27}\,\text{kg/m}$$

The Gravitational constant, G is constant because of the above ratio involving 186-ether.

Ether as Charge, q

A charged particle

The parameters of mass and radius of this central two-mass body are represented as, $q^2 = M \times R \times 10^7$

$$(1.602176537 \times 10^{-19})^2 =$$
$$1.859222909 \times 10^{-9} \times 1.380668031 \times 10^{-36} \times 10^7$$

The radius of this 186-ether particle perfectly matches the Boltzmann Constant: it is this body of a radius of $1.380668031 \times 10^{-36}$ and mass of $1.859222909 \times 10^{-9}$ kg that affords us an elegant solution to the deep problem of a unified gravitational and electric force.

Source of Boltzmann's Constant

The value of the 186-photon radius R is 10^{-13} meters less than the value of the Boltzmann's constant, k.

$$k = 1.380668031 \times 10^{-36} \text{ m Boltzmann radius}$$
and
$$k = 1.380668031 \times 10^{-23} \text{ dm Boltzmann constant}$$

The apparent difference between Boltzmann's constant and the Boltzmann radius is one of units only. In the ideal gas equation, volume is measured in $dm^3 \, or \, L$ so that the conversion to meters comes about by a factor of 10^{-3}. The conversion to kilograms from grams is by a factor of 10^{-3}. The factor appearing in the equation for charge squared is 10^{-7} so the powers add up to 10^{-13}. Thus the Boltzmann constant is identical with the photon radius.

Furthermore, wave-particle duality is resolved in the following wave equation.

Ether as a Wave

The equation of a wave is $\lambda = 2\pi \times R \times 137.036$. Here the photon particle of radius, R ripples ether at large at a wavelength lambda.

To begin with photons are particles with mass, charge, radial length, ether and pulsate about a mean position. Photon pulsate motion is picked up as an ether wave on the laboratory detector screen as fringes. The screen is made up of matter which is basically clusters of photons about seed 186-ether. The arrival of the ether wave front orchestrates photons in the material of the detector to pulsate at new parameters of frequency, wavelength and there is a redistribution of photon mass and contained ether. Photon particles generate ether waves. Myriads of 186-ether masses comprise the etheric sea, which is the source of gravitational and electromagnetic field waves. Through pulsations, source photon bodies generate the radiation of waves in this ambient ether. These etheric radiation waves are ripples of the 186-field particles that have been modeled by the frequency of the source photon, also called the wave-maker, or signaler.

Normally, the locomotion of particles is associated with *convection* currents; that is to say, showers of particles that travel in locomotion through space can be treated as a convection current and not radiation. Cosmic rays are the well-known example of convection. A point to note here is that these showers or swarms of particles travel as matter waves and arrive, as they are meant to, as particles. This must be visualized in stark contrast to the phenomenon of light *radiation* where 186-field particles change shape about a mean position, that is, undergo mass contraction and expansion realized as a wave front of the etheric sea.

The ether wave front travels at the speed of light, c.

Evidence for the speed of light, c, related to the pulsation of a source photon: mass distributed within a time-period for one cycle for a photon is,

$$mass \times timeperiod \times 137.036$$
$$= 0.7372496364 \times 10^{-50} kg.s \quad \{ref. 1\}$$

For an electron, the speed of light, *c*, is a connection between the light's *wavelength* and its wave frequency,

$$c = \lambda \times f , \quad f = \frac{2.99792458 \times 10^8}{2\pi R_e \times 137.036} ,$$

$$f = 0.169320307 \times 10^{22} s^{-1}$$

$$9.1093826 \times 10^{-31} \times 5.905966129 \times 10^{-22} \times 137.036$$
$$= 0.7372496364 \times 10^{-50} kg.s$$

The math clearly establishes a correlation between the speed of light, *c*, and the pulsation of the source photon (or electron, which is a type of photon). This source photon vibrating at a particular frequency, *f*, ripples ether at-large.

The ether model resolves the concept of charge, *q*, as photon mass or electron mass pulsating about a mean volumetric radius.

Furthermore, the effects of this charge, *q*, as pulsation, bring about the rippling of the ether contained within the photon body and also at the same time bring about the rippling of the ambient ether outside the photon in erstwhile "empty space". This outgoing rippling is what we call *etheric waves*. These waves have a wavelength, frequency, and travel at the speed of light, *c*. The wave front *radiates* through 186-field ether mass or etheric sea.

Essential for the right wavelength propagation through ether is the slowed velocity, *v*, of pulsation of the 186-ether masses comprising the field.

$$\lambda = \frac{h}{186 \times v}$$

The wavelength *for a wave* is $\lambda = 2\pi \times r \times 137.036$ where *r* is the radius of the photon body that experiences the 186 force due to pulsate velocity, *v*. {ref. 1}

For an *etheric wave*, the speed of light, *c*, is generated by wavelength, λ, within the time-period, *t*. The time-period, *t*, is the same as that of the pulsation of the source photon.

The speed of light *in ether* is $c = \frac{\lambda}{t}$.

Electric Field, *E*

The discussion in {*ref.* 2} describes the electric field, *E*, as being caused by the pulsating $1.859222909 \times 10^{-9}$ kg ether mass exerting a force on the particle embedded in it. *E* is a property of the electric field wherein the particle is embedded and mathematically measured as, $E = \frac{I}{t} = \frac{F}{q}$,

where current, *I*, is the momentum of $1.160435741 \times 10^{10}$ kg etheric mass per one coulomb charge in time, *t*.

Magnetic Field, *B*

In {*ref.* 2} a magnetic field is defined as change in current, *I*, within changing radial length, *r*, of a pulsating photon. Magnetic field, $B = \frac{I}{r}$.

Resistance, $R = \frac{I}{186}$ or $R = \frac{v}{q}$ {*ref.* 2}

The word resistance is a misnomer, because it is velocity of 186-ether. So, rate of velocity change influences acceleration. That is why increase in resistance increases voltage.

Magnetic Flux Quantum, Φ_0

$$\Phi_0 = \frac{h}{2e}$$
$$\Phi_0 = 2.067833636 \times 10^{-15} Wb \quad \text{[CODATA]}$$

Ether Force

Energy, $E = mc^2$

Substitute the mass of 186-ether for *m*,

$$E = 1.859222909 \times 10^{-9} \times \left(2.99792458 \times 10^8\right)^2 J$$
$$E = 1.670986218 \times 10^8 J$$
$$E = F \times R$$

Substitute the value for energy and 186 radius,

$$F = \frac{E}{R} = \frac{1.670986218 \times 10^8}{1.380668031 \times 10^{-36}}$$

$$F = 1.210273708 \times 10^{44} N$$

The huge ether force of $1.210273708 \times 10^{44} N$ is associated with 186-ether.

The root of this 186-ether force is current, I.
$$\Phi_0 = BA$$
Substitute B with current, I, per 186 radius, r,
$$\Phi_0 = \frac{I}{r} \times A$$
$I = $ root of $1.210273708 \times 10^{44} \times 10^{-7}$ {ref. 8}

The factor of 10^{-7} is for voltage, $V = a \times 10^{-7}$ and voltage is proportional to current, I

$$I = 3.478898832 \times 10^{18} A$$

$$\Phi_0 = \frac{3.478898832 \times 10^{18}}{1.380668031 \times 10^{-36}} \times A \ Wb$$

$$\Phi_0 = 2.519721434 \times 10^{54} \times A \ Wb$$

$$A = 8.206596204 \times 10^{-70} \ m^2$$
$$A = \pi \times R^2 \times 137.036 \ m^2$$

This formula for area, A, was arrived at by dividing the area, A by the area of a circle.

$$A = \pi \times (1.380668031 \times 10^{-36})^2 \times 137.036 \ m^2$$

$$A = 8.206596204 \times 10^{-70} \ m^2$$

$$\Phi_0 = \frac{3.478898832 \times 10^{18}}{1.380668031 \times 10^{-36}} \times 8.206596204 \times 10^{-70}$$

$$\Phi_0 = 2.067833636 \times 10^{-15} Wb$$

Magnetic Flux Quantum, Φ_0, is thus giving light to the structure of the 186-ether/photon. Furthermore, the basis of the speed of light upon which all other physical constants depend upon is now illuminated.

The Source of Speed of Light, c
A well established equation for charge,
$$q = I \times t$$

Substitute value for current,
$$t = \frac{q}{I} = \frac{1.60217653 \times 10^{-19}}{3.478898832 \times 10^{18}}$$

$$t = 4.605412826 \times 10^{-38} s$$

This is the time, t, for current to flow through the radial distance of 186, ether mass

$$c = \frac{r}{t} = \frac{1.380668031 \times 10^{-29}}{4.605412826 \times 10^{-38}} \ m/s$$

$$c = 2.99792458 \times 10^8 \ m/s$$

Thus the speed of light is the pulsate speed of 186.

The Von Klitzing Constant
Von Klitzing constant of super-conductors, Rk, in Ohms, $25\,812.807\,557(18)\,\Omega$, is, in fact, the velocity per unit charge of 186.

If we consider the wavelength of 186,
$$\lambda = 2\pi \times r \times 137.036,$$
$$\lambda = 2\pi \times 1.380668031 \times 10^{-36} \times 137.036$$
$$\lambda = 1.188786353 \times 10^{-33} m$$

Then, for time, t, velocity, v,
$$v = \frac{\lambda}{t} = \frac{1.188786353 \times 10^{-33}}{4.605412826 \times 10^{-38}} \ m/s$$

$$v = \frac{\lambda}{t} = 25812.80761 \ m/s \ [\text{Von Klitzing constant}]$$

Herein rests the meaning of and cause of superconductivity.

$$c = \frac{r}{t} = \frac{1.380668031 \times 10^{-29}}{4.605412826 \times 10^{-38}} = 2.99792458 \times 10^8 \ m/s$$

Thus the speed of the wave front generated by 186 is the Von Klitzing constant while the speed of light is the pulsate speed of 186.

Consider Gauss' Law to determine an electric field, E within a photon body.

$$E = \frac{\sigma}{\varepsilon_0} = \frac{F}{q}$$

Rearrange in terms of surface charge density,

$$\sigma = \frac{\varepsilon_0 \times F}{q}$$

Proof

For an electron $\sigma = \frac{\varepsilon_0 \times F}{q}$

$$\sigma = \frac{\varepsilon_0 \times F}{q} = \frac{8.854187818 \times 10^{-12} \times 29.05350661}{1.60217653 \times 10^{-19}} C/m^2$$

$$\sigma = 1.605598381 \times 10^9 C/m^2$$

The force of an electron is derived in *ref.* 1.

Surface charge density, as the name implies is a charge, q bounded by a photon with surface area, A.

$$\sigma = \frac{q}{A} \quad \text{or} \quad A = \frac{q}{\sigma}$$

$$A = \frac{q}{\sigma} = \frac{1.60217653 \times 10^{-19}}{1.605598381 \times 10^9} = 9.978688 \times 10^{-29} m^2$$

Consider the surface of an electron sphere,

$$A = 4\pi \times r^2 = 4\pi \times (2.817940325 \times 10^{-15})^2 m^2$$

$$A = 9.978688 \times 10^{-29} m^2$$

Thus, $\sigma = \frac{q}{4\pi \times r^2}$ is proof of Gauss' law.

For 186-photon/ether

$$\sigma = \frac{\varepsilon_0 \times F}{q}$$

$$\sigma = \frac{8.854187818 \times 10^{-12} \times 1.210273708 \times 10^{44}}{1.60217653 \times 10^{-19}} C/m^2$$

$$\sigma = 6.688395767 \times 10^{51} C/m^2$$

The force of 186-photon/ether is derived in *ref.* 1.

Surface charge density, as the name implies is a charge, q bounded by a photon with surface area, A.

$$\sigma = \frac{q}{A} \quad \text{or} \quad A = \frac{q}{\sigma}$$

$$A = \frac{q}{\sigma} = \frac{1.60217653 \times 10^{-19}}{6.688395767 \times 10^{51}} = 2.395457126 \times 10^{-71} m^2$$

Consider the surface of a 186-photon,
$$A = 4\pi \times r^2 = 4\pi \times (1.380668031 \times 10^{-36})^2 m^2$$
$$A = 2.395457126 \times 10^{-71} m^2$$

Thus, $\sigma = \frac{q}{4\pi \times r^2}$ is proof of Gauss' law

Gravity
Gravity arises from acceleration of ether

The ether mass contained within an electron is shown to accelerate at 9.8 m/s².

Proof

Acceleration, $a = \frac{v^2}{r}$

$$v^2 = a\, r = 9.8 \times 2.817940325 \times 10^{-15}$$
$$v = 1.661800686 \times 10^{-7} m/s$$

$$I = 1.160435741 \times 10^{10} \times 1.661800686 \times 10^{-7}$$
$$I = 1928.41291 \quad A$$
$$I^2 = 3718776.351 \, N$$
$$F = I^2 \times 10^7 \, N = 3.718776351 \times 10^{13} \, N$$
$$M = \frac{F}{a} = \frac{3.718776351 \times 10^{13}}{9.8}$$
$$M = 3.794669746 \times 10^{12} \text{ kg [the ether mass]}$$
$$\{ref.\ 1,2\}$$

The ether mass contained within an electron is obtained from the ether constant ratio {ref. 1}.

$$\frac{m}{r} = 1.3406611109 \times 10^{27} \, kg/m$$
$$m = 2.817940325 \times 10^{-15} \times 1.346611109 \times 10^{27}$$
$$M = 3.794669746 \times 10^{12} \text{ kg}$$

Gravity arises from acceleration of ether
   In other words, the tangential velocity of ether is orchestrated by an external magnetic field, B to yield constant acceleration due to gravity. The participation of 186-ether in electromagnetic phenomena and gravity has been evinced with many examples in {ref. 2}.

The Electron Torus

Let us **assume** that an electron is a torus.

$$\sigma = \frac{q}{4\pi \times r^2} \text{ Gauss' law } \{\textit{ref. } 6\}$$

The surface area of a sphere, $4\pi \times r^2$, can be rearranged as a cylinder, $(2\pi \times r) \times (2 \times r)$.

Join the open ends of the cylinder and get a torus.

Consider the surface of an electron sphere,

$A = 4\pi \times r^2 = 4\pi \times (2.817940325 \times 10^{-15})^2 m^2$

$A = 9.978688 \times 10^{-29} m^2$

This area is the same as the surface of an electron torus.

A Model of an **Expanded** Electron Torus

Now the electron is always in pulsate motion, by a radial factor of 137.036.{*ref. 1*}

Expanded torus surface area, A,

$A = (2\pi \times r^* \times 137.036) \times (2 \times r^{\bullet})$

Here, r^* is the radius of a photon or electron.

The circumference of the torus is $(2 \times r^{\bullet})$.

When the radius expands to a length of, $r^* \times 137.036$, {*ref. 1*},

the circumference is $2\pi \times r^* \times 137.036$

Thus $2\pi \times r^* \times 137.036 = 2 \times r^{\bullet}$

$r^{\bullet} = \pi \times r^* \times 137.036 m$

Therefore, $A = (2\pi \times r^*) \times (2 \times r^{\bullet})$

$A = (2\pi \times r^* \times 137.036) \times (2 \times \pi \times r^* \times 137.036)$

$A = \lambda \times \lambda \ m^2$

*Thus the surface area of an **expanded** photon is equal to the square of its wavelength which is the circumference.*

In other words if the expanded torus was cut, the resulting cylinder would have a height of lambda and the circumference of its base as lambda too.

Magnetic Flux Quantum, *Φ₀*

$\Phi_0 = 2.067833636 \times 10^{-15} Wb$

The root of this 186-ether force is current, I.

$\Phi_0 = BA$

Substitute B with current, I, per 186 radius, r,

$$\Phi_0 = \frac{I}{r} \times A \qquad \{\textit{ref. } 2\}$$

$\Phi_0 = \frac{I}{r} \times \pi \times r^2 \times 137.036$

$\Phi_0 = I \times \pi \times r \times 137.036$

$\Phi_0 = I \times r^{\bullet} \qquad \{\textit{ref. } 2\}$

The source of the magnetic flux quantum, Φ₀ is now shown to be current, I acting thru half the wavelength or circumference, r• of a photon torus.

Charge: Electron or photon or 186-ether

The electron body consists of photon mass that is spread over the Gaussian surface of the torus shape. The elementary charge, q is obtained from the formula,

$$q^2 = M \times R \times 10^7 \ \{\textit{ref. } 1,2\}$$

$\left(1.602176537 \times 10^{-19}\right)^2 =$
$9.1093826 \times 10^{-31} \times 2.817940325 \times 10^{-15} \times 10^7$

$(1.602176537 \times 10^{-19})^2 =$
$1.859222909 \times 10^{-9} \times 1.380668031 \times 10^{-36} \times 10^7$

Formation of Photon bodies {*ref. 3*}

Ether ⇆ 186 two-mass body ⇆ photon body ⇆ 186-ether cocooned by photons

When etheric material changes into photons a super-positioning of two 186-etheric masses occurs; when this super-positioning takes place there is a reduction in the measurement from that of the mean volumetric radius of the 186-ether to the 186² two-mass photon body by a factor of 10⁷.

Note: You will notice the radii of the proton or 186 changing in different situations by a factor of 10⁻⁷ or 10⁷. This has to do with the two-mass body.

Dynamic Model of Photo-electric Conversions

Electron to Ether to Electron

The photo-electric conversions are reminiscent of the Dirac sea. The 186 dynamic pulsations to the limit of the electron mass or vice-versa are now described as follows. Here is how an electron vanishes as ether. {*ref. 1*}

Cross section of a Torus

Radius of an electron

Radius of a photon body
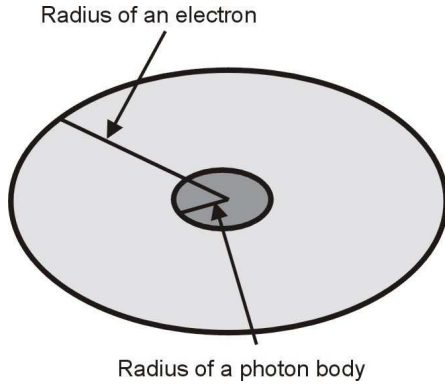
Illustrated at "Radius of an electron": the peripheral two-mass body: an electron of $9.1093826 \times 10^{-31} \text{kg}$ and ether of $3.79466974 \times 10^{12} \text{kg}$ contained in the classical radius, R_e, of the electron of $2.817940325 \times 10^{-15} \text{m}$.

Illustrated at "Radius of a photon": a central two-mass body: a photon of $1.859222909 \times 10^{-9} \text{kg}$ and ether of $1.859222909 \times 10^{-9} \text{kg}$ contained in the radius of $1.380668031 \times 10^{-36}$.

The parameters of mass and radius of this central two-mass body are obtained by two equations, namely, the equation for conservation of electric charge and the etheric mass-over-radius constant M/R.

$$q^2 = M \times R \times 10^7 \qquad \text{and}$$

$$M/R = 1.346611109 \times 10^{27} \text{kg/m}$$

$$(1.602176537 \times 10^{-19})^2 =$$

$$1.859222909 \times 10^{-9} \times 1.380668031 \times 10^{-36} \times 10^7$$

and

$$\frac{M}{R} = \frac{1.859222909 \times 10^{-9}}{1.380668038 \times 10^{-36}} = 1.346611109 \times 10^{27} \text{kg/m}$$

Entailed here is a picture of a nascent atom presenting a two-mass body with a radius of $1.380668031 \times 10^{-36}$ m shown to be the source of the Boltzmann Constant.

The Quantum Relationship

The rest mass of an electron, $M_0 = 9.1093826 \times 10^{-31} \text{kg}$. A quantum of $2.040997717 \times 10^{21}$ electrons forms the 186-photon body synonymous with 186-ether. The mass of ether embedded in each electron is $3.79466974 \times 10^{12}$ kg. Here is a first quantum jump from electron to photon as follows,

Photon mass =

$$9.1093826 \times 10^{-31} \text{kg} \times 2.040997717 \times 10^{21} \text{electrons}$$

$$= 1.859222909 \times 10^{-9} \text{ kg}$$

A second quantum jump yields the value of ether over the classically defined radius of an electron as follows,

$$1.859222909 \times 10^{-9} \text{kg} \times 2.040997717 \times 10^{21} \text{particles}$$

$$= 3.794669713 \times 10^{21} \text{kg}$$

The *in situ* two-mass body, *each* of $1.859222909 \times 10^{-9} \text{ kg}$, consists of an etheric mass associated with a photon mass obtained from the first quantum jump. From the second quantum jump, the mass of $3.794669713 \times 10^{21} \text{kg}$ is ether associated with the electron generated by supplied energy.

Essential for the right wavelength propagation through ether is the slowed velocity, v, of pulsation of the 186-ether masses comprising the field.

$$\lambda = \frac{h}{186 \times v}$$

The wavelength *for a wave* is $\lambda = 2\pi \times r \times 137.036$ where r is the radius of the photon body that experiences the 186 force due to pulsate velocity, v.

PULSATION & ROTATION

Each 186-ether pulsates in sequence like the lights in series on a Christmas tree.

$$\lambda_{186} = \frac{h}{186 \times c} \text{ [at the Boltzmann radius]}$$

$$\lambda_{electron} = \frac{h}{186 \times v} \text{ [at the electron radius]}$$

Here lies the secret of the dynamo that gyrates all of matter:

The ether contained in the electron torus,

$$1.859222909 \times 10^{-9} \text{kg} \times 2.040997717 \times 10^{21} \text{particles}$$

$$= 3.794669713 \times 10^{21} \text{kg}$$

Each 186-torus expands as its velocity slows down from the speed of light, c to v.

$$v \times 2.04099771 \times 10^{21} = c$$
$$v \times 2.04099771 \times 10^{21} = 2.99792458 \times 10^8$$
$$v = 1.468852496 \times 10^{-13}\, m/s \; \{ref.\, 1\}$$

This is evidence that there is no locomotion of 186-ether in the torus tube.

The expansion occurs from the Boltzmann radius up-to the limit of the electron radius; this yields lambda, λ or the core circumference of the torus.

$$\lambda_{electron} = \frac{h}{186 \times v} \text{ [at the electron radius] } \{ref.\, 1\}$$

The expansion of the core simultaneously expands the electron circumference by a factor of 137.036 to yield the second wavelength, λ.

$$\lambda_{electron} = \frac{h}{9.11 \times 10^{-31} \times c} \text{ [at the electron radius]}$$

$$A = \lambda \times \lambda$$

In other words if the expanded torus was cut, the resulting cylinder would have a height of lambda due to the electron mass and the circumference of its base as lambda too due to the 186-expanded ether..

Having discussed pulsation we will now look at rotation.

The Von Klitzing Constant

$$v = \frac{\lambda}{t} = 25812.80761\, m/s \; [\text{Von Klitzing constant}]$$
$$\{ref.\, 2\}$$

Substitute the values for the wavelength of an electron, λ and velocity, v,

$$t = \frac{\lambda}{v} = \frac{2.426310254 \times 10^{-12}}{25812.80761} = 9.3996371 \times 10^{-17}$$

$$E = \frac{F}{q} = \frac{I}{t}$$

$$t = \frac{I \times q}{F}$$

$$t = \frac{\sqrt{29.05350661 \times 10^{-7}}}{29.05350661 \times 10^{-7}} \times 1.60217653 \times 10^{-19}$$

$$t = 9.3996371 \times 10^{-17} s$$

Force is current squared. {*ref.* 1,2}

The traditional $q = I \times t$ formula will yield the same result.

Thus the passage of current is not locomotion of electrons but rather the pulsation of individual 186-ether particles blinking in sequence.

Question:
What causes rotation of the torus? Or what tips the balance at a point on the ring to cause spin?
Suggested Answer:
There are $2.04099771 \times 10^{21}$ ether particles in the torus tube arranged along the circumference of the ring. Each of these 186-ether particles pulsate from Boltzmann's radius [at the speed of light, c] up-to the limit of the electron radius [at slowed velocity, v]; this yields lambda, λ or the core circumference of the torus.

$$\lambda_{electron} = \frac{h}{186 \times v} \text{ [at the electron radius]}$$

$$\lambda_{electron} = \frac{6.6260693 \times 10^{-34}}{1.859222909 \times 10^{-9} \times 1.468852496 \times 10^{-13}}$$

$$\lambda_{electron} = 2.426310254 \times 10^{-12}\, m \; \{ref.\, 1,2\}$$

Simultaneously, the slowed velocity and volume increase to the radial parameters of an electron cause an imbalance at that point in the ring. The ring or torus tips and rotation begins. Each 186-ether pulsates sequentially (not simultaneously) and the torus rotates.

The Electric Field, E

$$E = \frac{F}{q} = \frac{I}{t} \qquad \{ref.\, 2\}$$

The force per unit charge, q is the electric field. Elementary charge, q is the charge of an electron or photon or a proton. Here, charge, q also represents 186-ether. {*ref.* 2} There are two charges of equal magnitude, q. One is the 186-ether and the other is the photon, electron or proton scaffolding.

The 186-ether is contained or bounded by the radial parameters, r of an electron or

proton or photon or 186-ether. In other words, the electric field, *E* is caused by the 186-ether which creates a force, *F* on the electron, photon or proton. The force, *F* causes a reaction force equal and opposite in magnitude in the electron, photon or proton surface mass. {*ref*. 2}

The 186-ether in the torus tube must have the same acceleration as 186-ether at large outside the torus or the torus will burst due to an imbalance is pressure. This is why the flux is maintained inside and out of the photon torus.

The electric field is a measure of current in time as determined by utilizing the von Klitzing constant; whereas the magnetic field is determined by the magnetic flux quantum and is a measure of current per photon radius.

Significance

1. Energy from a mimic of a photon fractal is key to solving the energy crisis.
2. The clear understanding of terms like flux, field, current, voltage, resistance is achieved herein this paper.
3. The emanation of matter is brought in within the context of quantum leap.
4. The build up of fibrous matter with cores from 186-ether is revealed.
5. A consequence of this paper is the beginning of the understanding of recognition at the ether level. A development of this work will lead to solutions in the field of cognitive genetics. {*ref*. 5}
6. The source of the von Klitzing constant is revealed to be the velocity of a 186-torus in rotary motion.

Paradigm Shift

An electron is now shaping up as a torus. An electron is a photon as it obeys the charge squared formula.

Ether constitutes the air of the torus tube.

An electron pulsates and rotates. The blinking of 186-ether, is suggested to cause the torus ring to tip and rotate.

The role of 186-ether {*ref*. 1-8}

1. As a light wave source and transmitter
2. Source and transmission of heat
3. A measure of electric charge
4. The reason for gravity
5. The deconstruction of Ohm's law
6. Reinterprets the Von Klitzing factor
7. Defines the speed of light, *c*
8. Defines the gravitation constant, *G*
9. Validates Magnetic Flux Quantum, Φ_0
10. Give rise to the massive Ether Force
11. Differentiates radiation from convection
12. Redefines the electric and magnetic field
13. Unites gravity with electromagnetism
14. Proves that 186-current is the source of electromagnetism
15. Resolves wave-particle duality
16. Formulae clearly define a wave, a particle and a field.
17. The source of the Boltzmann constant gives new life to thermodynamics
18. Temperature redefined as force
19. Gravity is synonymous with voltage
20. Current is the momentum of 186-ether
21. Resistance is current per 186-ether mass
22. Voltage is acceleration of 186-ether
23. Gravity is acceleration of 186-ether
24. A two mass body – 186 squared – is the step towards emanation of matter as atomic mass units. {*ref*. 3}
25. 186-ether seeds represent oxidation state of an atom. {*ref*. 4}
26. Matter is defined as photon clusters about 186-ether seeds. {*ref*. 4}

References

[1] F.V. Fernandes, *Photo-Electric Conversions,* Parts 1-8, www.worldnpa.org

[.2.] F.V. Fernandes, *Unification of Gravity with Electro-Magnetic Phenomena: GEM,* www.worldnpa.org

[3.] F.V. Fernandes, *Emanation of Matter,* www.worldnpa.org

[4.] F.V. Fernandes, *Faraday's equation,* www.worldnpa.org

[5] F.V. Fernandes, *The Atomic Bond,* www.worldnpa.org

[6] F.V. Fernandes, *Gaussian Surface of a Photon,* www.worldnpa.org

[7] F.V. Fernandes, *Quantum of Energy - A Photon,* www.worldnpa.org

[8.] F.V. Fernandes, *Ohm's Law Unveiled,* www.worldnpa.org

Listed are equations that describe various attributes of 186-ether and electron mass {*ref. 7*}

186-ether mass, m and radius, r	$h = m \times Rk \times r$ Associated with the Von Klitzing constant, Rk
Charge squared of a photon particle, q^2	$q^2 = m \times r \times 10^7 \ C^2$ Photon mass pulsates thru radius, r
The ether wave	$\lambda = 2\pi \times r \times 137.036 \ m$ Created by a photon of radius, r
Cross section area, A of a photon	$A = \pi \times (r)^2 \times 137.036 \ m^2$ The photon radial extension of 137.036 is involved
Current, I	$\dfrac{1.16 \times 10^{10} \times v}{1C} \ A$ The momentum of 116-ether
Ether force as current squared, I^2	$I^2 = F, \ force \ N$ Unity of electric current and the force of gravity
Magnetic field, B	$B = \dfrac{I}{r} \ A/m$ Current per photon radius
Electric field, E	$E = \dfrac{I}{t} \ A/s$ Momentum of 186-ether per unit time
Resistance, R	$R = \dfrac{I}{186} = \dfrac{v}{q} \ A/kg$ Current associated with one 186-ether mass
Magnetic flux, Φ_B	$\Phi_B = \dfrac{I}{r} \times A$ or $\Phi_B = I \times \pi \times r \times 137.036 \ Wb$ The angular momentum of 116-ether
Electric flux, Φ_E	$\Phi_E = \dfrac{I}{t} \times A$ or $\Phi_E = eV \times R ; \ R = \pi \times r \times 137.036 \ A.m^2/s$ Current thru a cross section area of a photon in time
Electron volts, eV	$eV = r \times E = r \times \dfrac{F}{q} \ N.m/C$ Electric field acting thru a distance, r
Heat, H	$H = \dfrac{1.16 \times 10^{10} \times v^2}{1C} \ J$ Energy associated with 1 coulomb of ether
Voltage, V	The gravitational acceleration of a photon body
Source of light speed, c	$c = \dfrac{r}{t} = \dfrac{1.380668031 \times 10^{-29}}{4.605412826 \times 10^{-38}} \ m/s$ The pulsate velocity of 186-ether
Photon force, F	$F = 29.05350661 \ N$ The force of a photon at pulsate speed, c
Ether contained within photon radius, r	$r \times 1.346611109 \times 10^{27} \ kg$ The ether mass consists of myriads of 186-ether

Dynamic Model of Pulsation and Rotation

The Surface Area of The Smaller
Electron Torus = 2ΠR x 2R
The Surface Area of The Larger
Electron Torus = λ x λ

Electron Radius x 137

Electron Radius

2.04099771x10^21
tori of 186-ether
comprise each core of
the electron torus

186 - Photon Torus Has An
Electron Radius x 137
The Rotation of 186 - Torus
Has Velocity = Rk
The Circumference = λ
The Pulsation of Each 186
Causes The Electron Torus
To Wave At λ.

Electron Radius x 137

Electron Photon Mass Comprising
The Torus Surface.
This Electron Torus Has a Radius of
R x 137

186 - Ether Torus
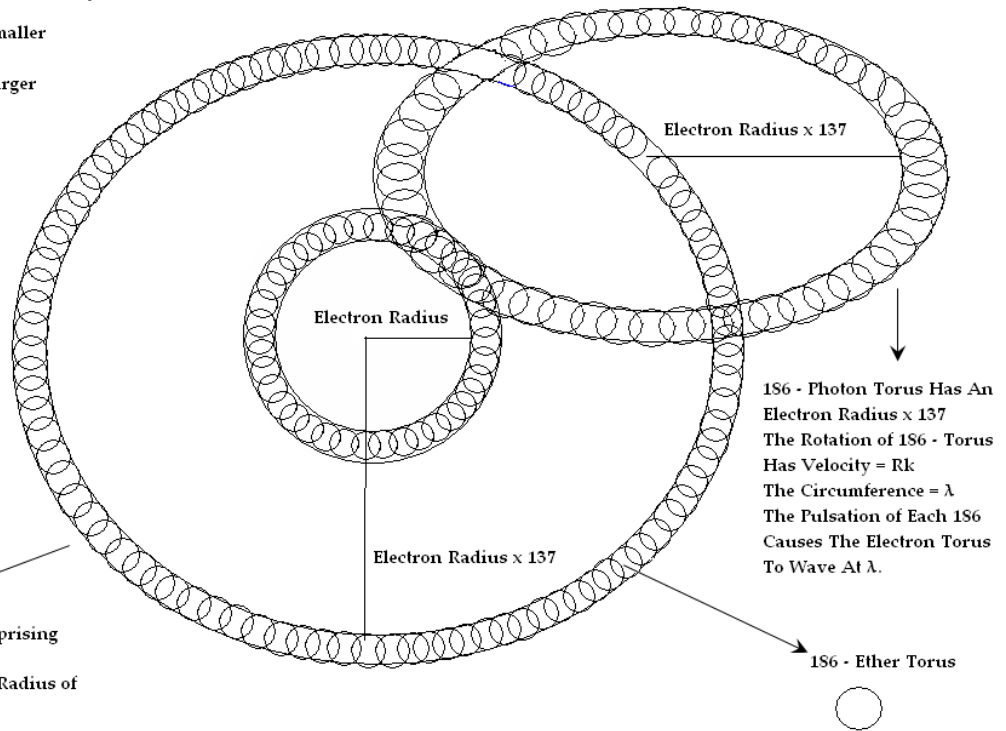
S.I. Values CODATA Recommended

Parentheses indicate uncertainty in the last digits of the value.

Descriptor, Symbol (if any)	Value, Units
Rest Mass of an Electron, M_0	$9.1093826(16) \times 10^{-31}\,\text{kg}$
Planck's constant, h	$6.6260693 \times 10^{-34}\,\text{Js}$
Speed of light in vacuum, c	$2.99792458 \times 10^{8}\,\text{m/s}$
Elementary charge, q_e	$1.602176537 \times 10^{-19}\,\text{C}$
Classical electron radius, R_e	$2.817940325 \times 10^{-15}\,\text{m}$
Alpha, a	$7.2973525504 \times 10^{-3}$
Universal Gravitational constant, G	$6.6742(10) \times 10^{-11}\,\text{m}^3 / \text{kg s}^2$
Magnetic permeability of free space, μ_o	$4\pi \times 10^{-7}\ \text{N} \cdot \text{A}^{-2}$
Electric permittivity of free space, ε_o	$8.854187817 \times 10^{-12}\,\text{Fm}^{-1}$
Dielectric constant, k	$8.987551787 \times 10^{9}\,\text{N}\,\text{m}^2/\text{C}^2$
Magnet flux quantum Φ_0	$2.067\,833\,667(52) \times 10^{-15}\,\text{Wb}$
Von Klitzing constant, Rk	$25\,812.807\,557(18)\ \Omega$