

**Confluence of Planck, Newton, Coulomb, Feynman, Ohm, Einstein, Josephson, Hall,  
Kelvin & Boltzmann @ The 186 - de Broglie Ether Stream**  
*Convergence of Quantum Gravity with Ether occurs at the Planck length*

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*Quantum of Ether - 186* is the source of electromagnetism and gravity, and all types of forces. Scientists Planck, Newton, Coulomb, Ohm, Feynman, Kelvin, Hall, Josephson and Einstein were all boating in the same waters of the de-Broglie etheric sea. However, it is Boltzmann who knits all the theories as one. [Planck length and mass occur at 186-ether.](#)

## 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.

## THE ETHER MODEL

### 186-Ether

#### Bringing Newton and Coulomb together

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

If elementary charge,

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

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

If elementary charge,  $q = 1.0 \text{ C}$

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

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

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, $q$

#### Bringing Boltzmann and Coulomb together

*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  $1.859222909 \times 10^{-9} \text{ kg}$  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,  $k$ .

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

$k = 1.380668031 \times 10^{-23}$  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

#### Bringing Feynman and de Broglie together

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

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

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

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

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

$$\begin{aligned} & 9.1093826 \times 10^{-31} \times 5.905966129 \times 10^{-22} \times 137.036 \\ & = 0.7372496364 \times 10^{-50} \text{ kg.s} \end{aligned}$$

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,  $v$ .

For an *etheric wave*, the speed of light,  $c$ , is generated by wavelength,  $\lambda$ , 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, $E$

In other words, the electric field,  $E$ , is actually 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, $B$

However, further analysis in this paper defines a magnetic field as change in

current,  $I$ , within changing radial length,  $r$ , of a pulsating photon.

$$\text{Magnetic field, } B = \frac{I}{r}$$

$$\text{Resistance, } R = \frac{I}{186}$$

A misnomer, because it is velocity of 186-ether

Magnetic Flux Quantum,  $\Phi_0$

$$\Phi_0 = \frac{h}{2e}$$

$$\Phi_0 = 2.067833636 \times 10^{-15} \text{ Wb [CODATA]}$$

### *Ether Force*

**Bringing Einstein, Hall, Josephson and Planck together**

Energy,  $E = mc^2$

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

$$E = 1.859222909 \times 10^{-9} \times (2.99792458 \times 10^8)^2 \text{ J}$$

$$E = 1.670986218 \times 10^8 \text{ J}$$

$$E = F \times R$$

Substitute the value for energy and 186 radius,

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

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

The huge ether force of  $1.210273708 \times 10^{44} \text{ N}$  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,  $r$ ,

$$\Phi_0 = \frac{I}{r} \times A$$

$$I = \text{root of } 1.210273708 \times 10^{44} \times 10^{-7}$$

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

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

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

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

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

$$A = \pi \times R^2 \times 137.036 \text{ m}^2$$

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

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

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

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

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

### The Planck Length and Mass @186 - ether

If the area,  $A = 8.206596204 \times 10^{-70}$  of the cross section of the 186-torus or sphere is divided by area of a circle,

$$r = \frac{8.206596204 \times 10^{-70}}{\pi \times r^2} \times 10^{-35} \text{ m Planck length}$$

Thus the expanded 186-ether torus or sphere by a factor of the inverse hand of god number, 137.036, is now at a new radial parameter exactly equal to Planck's length.

Term	Codata
Planck length	$1.616252(81) \times 10^{-35} \text{ m}$
Planck mass	$2.17644(11) \times 10^{-8} \text{ kg}$

Furthermore, Planck's mass is the ether mass that corresponds to this new Planck length.

$$1.616242774 \times 10^{-35} \times 1.346611109 \times 10^{27} \\ 2.176450474 \times 10^{-8} \text{ kg Ether - Planck mass}$$

*The bringing together of Quantum gravity with the ether model is thus evinced.*

Magnetic Flux Quantum,  $\Phi_0$ , 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 ,

$$t = \frac{q}{I} = \frac{1.60217653 \times 10^{-19}}{3.478898832 \times 10^{18}}$$

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

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

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

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

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

### The Von Klitzing Constant

Von Klitzing constant of super-conductors,  $R_k$ , 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,

$$\lambda = 2\pi \times r \times 137.036 ,$$

$$\lambda = 2\pi \times 1.380668031 \times 10^{-36} \times 137.036$$

$$\lambda = 1.188786353 \times 10^{-33} \text{ m}$$

Then, for time,  $t$ , velocity,  $v$ ,

$$v = \frac{\lambda}{t} = \frac{1.188786353 \times 10^{-33}}{4.605412826 \times 10^{-38}} \text{ m/s}$$

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

Herein lies the meaning of and cause of superconductivity.

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

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.

## Gravity

*Gravity arises from acceleration of ether*  
**Bringing Newton and Ohm together**

The ether mass contained within a proton is shown to accelerate at  $9.8 \text{ m/s}^2$ .

**Proof**

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

$$v^2 = a r = 9.8 \times 1.5347 \times 10^{-18}$$

$$v = 3.878148841 \times 10^{-9}$$

$$I = 1.160435741 \times 10^{10} \times 3.878148841 \times 10^{-9}$$

$$I = 45.00342524 \text{ A}$$

$$I^2 = 2025.308283 \text{ N}$$

$$F = I^2 \times 10^7 \text{ N} = 2.025308283 \times 10^{10}$$

$$M = \frac{F}{a} = \frac{2.025308283 \times 10^{10}}{9.8}$$

$$M = 2.066641105 \times 10^9 \text{ kg [the ether mass]}$$

Ether mass contained within a proton is obtained from the ether constant ratio {ref. 1}.

$$\frac{m}{r} = 1.3406611109 \times 10^{27} \text{ kg/m}$$

$$m = 1.534697799 \times 10^{-18} \times 1.3406611109 \times 10^{27}$$

$$m = 2.066641105 \times 10^9 \text{ kg}$$

*Gravity arises from acceleration of ether*

## Heat, H

*Radiant heat is the energy of 186*

**Bringing Kelvin, Boltzmann, Feynman, Newton and Ohm together**

Heat is re-defined as the energy of 186 mass. Since 186 mass is the building block of ether, the phenomenon called *radiation* is energy transfer across the ether fabric, or etheric sea. Experimental data from thermodynamics prove the connection between temperature, acceleration, and mass as related to 186 heat energy.

## Introduction

A common definition of heat is that it is a form of energy associated with atomic or molecular motion. Heat can be transmitted through solid and fluid media by conduction, through fluid media by convection, and through empty space or quantum vacuum by radiation.

**Proof**

$$\text{Heat, } H = I^2 \times R \times t$$

$$H = 1.859222909 \times 10^{-9} \times \frac{v^2}{q}$$

**Problem**

$$H = (7.779888747 \times 10^{-13})^2 \times 4.184484125$$

$$\times 10^{-4} \times 2.059382315 \times 10^{-7}$$

$$H = 5.215857007 \times 10^{-35}$$

$$H = 1.160435741 \times 10^{10} \times (6.70428225 \times 10^{-23})^2 \text{ J/C}$$

$$H = 5.215857007 \times 10^{-35} \text{ J/C}$$

**Problem**

At 300 Kelvin, the speed of hydrogen gas is measured by experiment to be 1927.31 meters per second and demonstrates the kinetic theory of gases formula to be correct.

$$m \times v^2 = 3 \times k \times T$$

$$2 \times 1.672622216 \times 10^{-27} \times 1927.31^2 = 3 \times$$

$$1.380668031 \times 10^{-23} \times 300$$

$$eVe = mv^2$$

$$V = a \times 10^7 = m \times \frac{v^2}{e^2}$$

$$V = 2 \times 1.672622216 \times 10^{-27} \times 1927.31^2 \times \frac{1}{e^2}$$

$$\text{Acceleration, } a = 4.840723482 \times 10^{11} \text{ m/s}^2$$

$$F = m \times a$$

$$F = 1.859222909 \times 10^{-9} \times 4.840723482 \times 10^{11}$$

$$F = 3 \times 300 \text{ N}$$

Thus we can see that the energy or heat content of 186 equals the energy or enthalpy of the hydrogen molecule.

The hydrogen molecule is propelled by undulating particles of the 186-ether mass



and this is postulated to be the basis for Brownian motion.

### Bringing Newton and Ohm together

The CLOAK of OHMS LAW uncovered

$$V = I \times R$$

$$a = I \times \frac{I}{m}$$

$$a = \frac{I^2}{m}$$

$$I^2 = \text{force} = m \times a$$

*The participation of 186-ether in electromagnetic phenomena and gravity has been evinced with many experimental examples in this research. The meaning of heat as joules per coulomb is exact science.*

### Significance

#### The role of 186-ether

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,  $\Phi_0$
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. A two mass body - 186 squared - is the

step towards emanation of matter as atomic mass units.

24. 186-ether seeds represent oxidation state of an atom.
25. Matter is defined as photon clusters about 186-ether seeds.
26. The Planck length and Planck mass are measures of 186-ether that has expanded by a factor of 137.
27. A black hole is seed 186-ether

### References

- [1] F.V. Fernandes, *Photo-Electric Conversions*, Parts 1-8, [www.worldnnpa.org](http://www.worldnnpa.org)
- [2] F.V. Fernandes, *Unification of Gravity with Electro-Magnetic Phenomena: GEM*, [www.worldnnpa.org](http://www.worldnnpa.org)

### Tribute to Bob Heaston:

I have published Dr. Bob Heaston's e-mail letter to me [with his kind permission] on pages 11 and 12 of my book - *The Ether Model & The Hand of God*. The first two pages of this letter can be read on-line at the Lulu.com link.

Bob says... As far as I know, the superforce has never been revealed to anyone except Einstein (he did not know it), you and me. In 1976 I redefined the four fundamental forces as the Newton gravitational force, the Coulomb electromagnetic force, Planck quantum force, and the Einstein strong force, which have collectively been called the *Heaston equations*. I noticed almost immediately that the four redefined forces converged on a specific superforce with a magnitude of  $1.210273708 \times 10^{44}$  N (E for exponent), eqn. (23) on page 25 of your paper. This superforce, which has the formula of the speed of light to the fourth power divided by the gravitational constant  $c^4/G$ , is present in inverted form in the Einstein field equations of general relativity theory (GRT) along with the energy-density tensor form of the right-hand side of the GRT equations. Einstein actually predicts a collapse of matter to the superforce—and the Planck scale. Just substitute the Planck length and the Planck mass into the Newton gravitational force. What you have derived in your paper is a direct link to the standard model and GRT.

In a strange event I found Dr. Bob sitting in a room at the University of New Mexico listening to my talk by video conference from India, the first link of this kind for an NPA conference. He waved some papers at the camera and said that he understood my work and then followed up with the letter.

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

