Unification of Gravity with Electro-Magnetic Phenomena: GEM

Gravity, g, is Voltage, V

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Storrs

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- **Part 1:** Electromagnetism

  Defining Field & Flux

- **Part 2:** Magnetic Flux Quantum, Φ_0

  Φ_0, Exists only at c

- **Part 3:** Anti-Gravity

  Electro-magnetic levitation

- **Part 4:** Gravity

  Gravity arises from acceleration of ether

- **Part 5:** Heat, H

  Radiant heat is the energy of 186

Term	Current understanding	Refurbished Paradigm
Voltage, V	Potential difference ▲	Acceleration
Resistance, R	Opposes current flow ▲	Velocity per charge or current per unit 186 ether mass
Current, I	Electron flow ▲	Momentum per coulomb of 1.16×10^{10} kg ether
Charge, q	$1.60217653 \times 10^{-19}$ C 1.0 C	1.86×10^{-9} kg ether 1.16×10^{10} kg ether
Acceleration due to gravity, g	Force per unit mass	Voltage
Cross sectional area, A	Cross section of a conductor	Pi times radius squared times 137
Field	Comes into being when mass or charge is introduced ▲	Ether is the fabric – 186s
Electric field, E	Force per unit charge	Current per unit time
Electric flux, Φ_E	Field, E passing thru area, A	Acceleration of 1.16×10^{10} kg/C ether thru area, A
Magnetic field, B	A measure of magnetic force per unit charge moving at velocity, v	Current per unit length
Magnetic flux, Φ_B	Field, B passing thru an area, A	Angular momentum of 186
Atomic mass units, AMU	Inverse of Avogadro number of particles	Mass of a photon cluster
Speed of Light, c	Locomotion of photons ▲	Speed of an etheric wave front
Von Klitzing constant	Resistance measured for super-conductors ▲	Velocity of 186 mass for super-conductors
Pressure, P	Force upon area	Magnetic field, B squared
Heat, H	Total KE of a system	Energy of 186
Time, t=q/I	Charge per unit current	Time for current to pass thru a radial distance of the 186 ether
Ether force constant	Not defined	Force of 186 ether 1.21×10^{44} N

Voltage is acceleration

Consider 511 keV for an electron

$$\frac{eV}{e} = V$$

$$\frac{511000}{1.60217653 \times 10^{-19}} = 3.1894 \times 10^{24} Volts$$

$$Acceleration = \frac{c^2 \times 10^{-7}}{r} = \frac{(2.998 \times 10^8)^2 \times 10^{-7}}{2.817940325 \times 10^{-15}} = 3.1894 \times 10^{24} \quad m/s^2$$

Part 1: Electromagnetism
Defining Field & Flux

The Field

The fabric of ether, comprised of myriads of 186-ether masses, is the field. The radius of each "186-ether mass" is the Boltzmann constant.

The etheric field is a constant ratio,

$$\frac{1.859222909 \times 10^{-9}}{1.380668031 \times 10^{-36}} = 1.346611109 \times 10^{27} \, kg/m$$

And the same ether represents charge,

$$\left(1.602176537 \times 10^{-19}\right)^2 = 1.85922209 \times 10^{-9} \times 1.380668031 \times 10^{-36} \times 10^{7}$$

The Field – 2 components

- Electric Field, $E = \dfrac{I}{t}$

- Magnetic Field, $B = \dfrac{I}{r}$

Unity of Voltage, *V*, and Gravity, *g*

Consider the data collected from electrolysis of water.

- Current I = 0.068 amps
- Time t = 18,000 s

- Equation: $2H_2O \rightarrow O_2 + 4H^+ + 4e^-$

$$E = \frac{I}{t} = \frac{0.068}{18000} = 3.777777778 \times 10^{-6} \, \text{A/s}$$

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

$$F = 3.777777778 \times 10^{-6} \times 1.60217653 \times 10^{-19}$$

$$F = 6.052666891 \times 10^{-25} \, N$$

$$a = \frac{F}{m} = \frac{6.052666891 \times 10^{-25}}{1.672622228 \times 10^{-27}}$$

$$a = 361.866941 \quad m/s^2$$

Force of a H-atom

The Radius of a Hydrogen Atom

$$r = \frac{q^2}{m \times 10^7}$$

$$r = \frac{(1.60217653 \times 10^{-19})^2}{1.672622228 \times 10^{-27} \times 10^7}$$

$$r = 1.534697788 \times 10^{-18} m$$

$$t^2 = \frac{r \times 10^7}{a} = \frac{1.534697788 \times 10^{-11}}{361.866941}$$

$$t = 2.059382315 \times 10^{-7} s$$

Frequency is the signature for action via field ether at a distance.

$$v = \frac{r}{t} = \frac{1.534697788 \times 10^{-11}}{2.059382315 \times 10^{-7}}$$

$$v = 7.452222254 \times 10^{-5}$$

$$v = \frac{r}{t} = \frac{1.380668031 \times 10^{-29}}{2.059382315 \times 10^{-7}}$$

$$v = 6.70428225 \times 10^{-23} m/s$$

$$T = \frac{1.859222909 \times 10^{-9} \times (6.70428225 \times 10^{-23})^2}{1.380668031 \times 10^{-29}}$$

$$T = 6.052666891 \times 10^{-25} N$$

Force of 186-ether

$$a = \frac{r}{t^2} = \frac{1.380668031 \times 10^{-29}}{4.241055521 \times 10^{-14}}$$

$$a = 3.25548209 \times 10^{-16} \ \text{m/s}^2$$

$$F = m \times a = 1.859222909 \times 10^{-9} \times 3.25548209 \times 10^{-16}$$

$$F = 6.052666891 \times 10^{-25} \, N$$

The force of one hydrogen atom equals that of 186-etheric mass

Method 2

$$eVe = mv^2 \quad \text{or} \quad e^2 = \frac{mv^2}{V}$$

For 186

$$e^2 = \frac{1.859222909 \times 10^{-9} \times (6.70428225 \times 10^{-23})^2}{3.25548209 \times 10^{-16}}$$

For a Hydrogen Atom

$$e^2 = \frac{1.672622228 \times 10^{-27} \times (7.452222254 \times 10^{-5})^2}{361.866941}$$

Note that voltage, V, is acceleration, a

There is No Locomotion of 186

$$v = 6.70428225 \times 10^{-23} \quad \text{m/s for the 186-ether}$$

$$v = 7.452222254 \times 10^{-5} \quad \text{m/s for the H-atom}$$

$$\frac{7.452222254 \times 10^{-5}}{6.70428225 \times 10^{-23}} = 1.111561533 \times 10^{18}$$

The ratio of mass of contained ether of a H-atom and the 186-ether

$$\frac{2.066640667 \times 10^{9}}{1.859222909 \times 10^{-9}} = 1.111561533 \times 10^{18}$$

Thus, increase in velocity is not due to velocity increase of 186 but due to mass of contained ether. *Frequency is constant.*

Proof: Resistance, $R = \dfrac{I}{186}$

$$R = \frac{v}{q} = \frac{I}{1.859222909 \times 10^{-9}} \quad A/kg$$

$$R = \frac{v}{q} = \frac{6.70428225 \times 10^{-23}}{1.60217653 \times 10^{-19}} \quad A/kg$$

$$R = 4.184484125 \times 10^{-4} \quad A/kg$$

$$R = \frac{I}{1.859222909 \times 10^{-9}} \quad A/kg$$

$$R = 4.184484125 \times 10^{-4} \, A/kg$$

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

$$I^2 = 6.052666891 \times 10^{-25} \quad N$$

Calculating the Electric Field, $\quad E = \dfrac{F}{q} = \dfrac{I}{t}$

$$E = F / q$$

$$E = \frac{F}{q} = \frac{6.052666891 \times 10^{-25}}{1.60217653 \times 10^{-19}} \; \text{N/C}$$

$$E = 3.77777778 \times 10^{-6} \quad \text{N/C}$$

$$E = \frac{I}{t} = \frac{7.779888747 \times 10^{-13}}{2.059382315 \times 10^{-7}} \quad \text{A/s}$$

$$E = 3.77777778 \times 10^{-6} \quad \text{A/s}$$

Thus Electric Field is current in time.

Current, I, Redefined

Current is now defined as the momentum of one coulomb charge.

One coulomb charge is equivalent to $1.160435741 \times 10^{10}\, kg$ ether.

$$I = 1.160435741 \times 10^{10} \times 6.70428225 \times 10^{-23}\, A$$

$$I = 7.779888747 \times 10^{-13}\, A$$

Evidence of Ether

Input the value for the radius
of a hydrogen atom with radius,

$$E = F \times R$$

$$E = 6.052666891 \times 10^{-25} \times 1.534697788 \times 10^{-11}$$

$$E = 9.289014489 \times 10^{-36}$$

$$E = m \times v^2 = 9.289014489 \times 10^{-36}$$

Substitute the velocity, v,

$$m = \frac{E}{v^2} = \frac{9.289014489 \times 10^{-36}}{(6.70428225 \times 10^{-23})^2} kg$$

$$m = 2.066641105 \times 10^9 kg$$

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

$$\frac{m}{r} = 1.340661109 \times 10^{27} kg/m$$

$$\frac{2.066641105 \times 10^9}{1.534697788 \times 10^{-18}} = 1.346611109 \times 10^{27} kg/m$$

Thus, the existence of ether is proven.

Magnetic field, B, within a Hydrogen Atom

The ratio of current, I, to the radius, r, is proven to be the magnetic field, B.

$$B = \frac{I}{r} = \frac{7.779888747 \times 10^{-13}}{1.534697788 \times 10^{-11}} A/m$$

$$B = 5.069329485 \times 10^{-2} A/m$$

$$v = \frac{E}{B} = \frac{3.777777 \times 10^{-6}}{5.069329485 \times 10^{-2}} m/s$$

$$v = 7.452222254 \times 10^{-5} m/s$$

$$v = \frac{r}{t} = \frac{1.534697788 \times 10^{-11}}{2.059382315 \times 10^{-7}} m/s$$

$$v = 7.452222254 \times 10^{-5} m/s$$

Notice that the ratio of the total time squared for electrolysis and time squared for one proton equals the number of protons discharged at the cathode.

$$\frac{18000^2}{(2.059382315 \times 10^{-7})^2} = 7.639607605 \times 10^{21} \quad \text{Protons}$$

Similarly, the ratio of total current squared passed during electrolysis to the current squared passed thru one proton equals the number of protons discharged at the cathode.

$$\frac{0.068^2}{(7.779888747 \times 10^{-13})^2} = 7.639607605 \times 10^{21} \quad \text{Protons}$$

Electric, E, and Magnetic Field, B, for 186

$$B = \frac{I}{r} = \frac{7.779888747 \times 10^{-13}}{1.380668031 \times 10^{-29}} \, A/m$$

$$B = 5.634872811 \times 10^{16} \, A/m$$

$$v = 6.70428225 \times 10^{-23} \, m/s$$

Substitute values for the magnetic field, B and velocity, v $\quad v = \dfrac{E}{B}$

$$E = 6.70428225 \times 10^{-23} \times 5.634872811 \times 10^{16} \, A/t$$

$$E = 3.777777 \times 10^{-6} \, A/t$$

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

Defining Electron Volts eV

$$V = I \times R \quad \text{as defined by Ohms law}$$

Resistance, R is substituted by velocity,
v per unit elementary charge, e.

$$V = I \times \frac{v}{e}$$

$$eV = I \times v$$

$$eV = I \times \frac{r}{t}$$

$$eV = r \times \frac{I}{t}$$

$$eV = r \times E$$

Thus electron-volts is the electric field, E, times distance, r.

Electric Flux

$$eV = r \times E = r \times \frac{F}{q}$$

Input values for the classical electron radius, force in couplets {ref.1} and elementary charge,

$$eV = 2.817940325 \times 10^{-15} \times \frac{29.05350661}{1.60217653 \times 10^{-19}}$$

$$eV = 5109989213$$

$$keV = 511$$

The value of 511 keV is the electric field, *E*, manifesting itself through the radius of an electron. Twice 511 keV is used in experiments for pair production.

$$\Phi_E = E\,A$$

$$\Phi_E = \frac{eV}{r} \times r^2$$

$$\Phi_E = eV \times r$$

$$r = \pi \times R \times 137.036$$

Electric flux is the electron volts through half the wavelength distance of a photon, proton or electron

The Magnetic Flux, Φ_B

$$\frac{\Phi_E}{\Phi_B} = v$$

$$\Phi_B = \frac{\Phi_E}{v} = eV \times \pi \times R \times \frac{137.036}{v}$$

Substitute, e with $I \times t$,

$$\Phi_B = It\frac{v}{t} \times \pi \times R \times \frac{137.036}{v}$$

$$\Phi_B = I \times \pi \times R \times 137.036$$

Magnetic flux is the current, I, through half the wavelength distance of particles such as a photon, proton or electron.

A property of a super current is such that the magnetic flux passing through any area bounded by such a current is quantized. The quantum of magnetic flux is a physical CODATA constant, Φ_0, and is independent of the underlying material of the current carrying super conductor.

$$\Phi_0 = \frac{h}{2e} = 2.067833636 \times 10^{-15} Wb$$

$$\Phi = BA = I\,R\,\pi\,137.036$$

The Ether Force

$$E = 1.859222909 \times 10^{-9} \times \left(2.997924585 \times 10^{8}\right)^{2}$$

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

$$E = F \times R$$

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

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

Cross section of a photon

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

$$F = Isquared = 1.210273708 \times 10^{44} \times 10^{-7} \, N$$

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

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

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

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

$$A = \pi \times R^2 \times 137.036$$

The Source of Speed of Light, c

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

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

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

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

The Von Klitzing Constant

If we consider the wavelength of 186,

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

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

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

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

$$v = \frac{\lambda}{t} = 25812.807611 m/s$$

Part 3: Anti-Gravity
Electro-magnetic levitation

Place a 0.50 m horizontal section of conductor with a mass of 8.00g at 90 degrees to a 0.400 T magnetic field.

The weight of the conductor,　$F = 0.008kg \times \dfrac{9.8N}{kg} = 0.0784N$

The magnetic force on the conductor is, F = BIL Sin θ

$$0.0784N = 0.40T \times I \times 0.50m \times Sin90$$

$$I = 0.392A$$

So, current, I, of 0.392 A is required to flow through the 0.50m conductor placed 90 degrees to the magnetic field, *B*, of strength 0.40 T for a levitation effect. [This is *conventional* understanding]

Let us consider current generated by the magnetic field, *B,* of 0.4 T on 0.5m length of the conductor.

$$I = 0.4\,T \times 0.5\,m = 0.2\,A$$

Method 1: *Current Squared & Gravitation*

$$Fgrav = I^2$$

$$F = 0.008\,kg \times \frac{9.8\,N}{kg} = 0.0784\,N$$

$$0.0784\,N = 0.392\,A \times 0.2\,A \quad \text{[\textbf{Reason for levitation}]}$$

A magnetic field, *B,* contributes 0.2 A and additional input current of 0.392 A is the reason for levitation.

So, current, I, of 0.392 A is required to flow through the 0.50m conductor placed 90 degrees to the magnetic field, *B*, of strength 0.40 T for a levitation effect. [This is *conventional* understanding]

Method 2: *Magnetic field & Gravitation*

$$B = \frac{I}{L}$$

$$B = \frac{0.392}{0.5} = 0.784 \quad \text{Input field}$$

$$B = 0.4\,\text{A/m} \quad \text{External field}$$

$$B^2 = 0.784 \times 0.4 = 0.3136$$

$$B = 0.56\,\text{A/m}$$

$$I = B \times L = 0.56 \times 0.5 = 0.28$$

$$I^2 = 0.282 = 0.0784\,\text{N}$$

Method 3: *Acceleration & Gravitation*

If 0.392 A current is present within 0.008 kg mass of a conductor, then we can check how much is present over 186 mass of ether.

$$\frac{0.392}{0.008} = \frac{I_{186}}{1.8592229 \times 10^{-9}}$$

$$I_{186} = 9.1101925 \times 10^{-8} \, A$$

$$V = \frac{(9.1101925 \times 10^{-8})^2}{1.8592229 \times 10^{-9}}$$

$$V = 4.463994204 \times 10^{-6} \; m/s^2$$

$$V = \frac{I^2}{m} = \frac{0.2^2}{1.8592229 \times 10^{-9}}$$

$$V = 2.151436485 \times 10^{7} \quad m/s^2$$

$$(9.8)^2 = 4.463994204 \times 10^{-6} \times 2.151436485 \times 10^{7}$$

[Levitation in terms of acceleration]

The uniform magnetic field, B of 0.4 T produces a force of 0.04N or a current of 0.2 A, by the acceleration of 186.

$$F = 1.859222909 \times 10^{-9} \times 2.151436485 \times 10^{7} N$$

$$F = 0.04N$$

$$\text{Force,} I^{2} = 0.2^{2} \text{ A}^{2} = 0.04 \text{ N}$$

$$a = 2.151436485 \times 10^{7} = \frac{1.380668031 \times 10^{-29}}{t^{2}}$$

$$v = \frac{1.380668031 \times 10^{-29}}{8.010882648 \times 10^{-19}} = 1.723490521 \times 10^{-11}$$

$$I = mv = 1.160435741 \times 10^{10} \times 1.723490521 \times 10^{-11} A$$

$$I = 0.2A$$

Thus, current is the momentum of one coulomb charge

Acceleration, *a* due to gravity, *g* is voltage, *V*

$$g = a = Volts = \frac{m}{s^2}$$

Part 4: Gravity
Gravity arises from acceleration of ether

The ether mass contained within a proton is shown to accelerate at 9.8 m/s2.

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

$$\frac{m}{r} = 1.340661109 \times 10^{27} \, kg/m$$

$$m = 1.534697799 \times 10^{-18} \times 1.340661109 \times 10^{27}$$

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

Proof

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

$$v = 3.878148841 \times 10^{-9}\,m/s$$

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

$$I = 45.00342524\,A$$

$$I^2 = 2025.308283\,N$$

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

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

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

Part 5: Heat, *H*

Radiant heat is the energy of 186

$$H = I^2 \times R \times t$$

$$H = (7.779888747 \times 10^{-13})^2 \times 4.184484125 \times 10^{-4} \times 2.059382315 \times 10^{-7}$$

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

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

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

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

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.

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

$$2 \times 1.672622216 \times 10^{-27} \times 1927.31^2 = 3 \times 1.380668031 \times 10^{-23} \times 300$$

$$eVe = mv^2$$

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

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

$$a = 4.840723482 \times 10^{11} m / s2$$

$$F = 1.859222909 \times 10^{-9} \times 4.840723482 \times 10^{11} = 900N$$

$$F = 3 \times 300K$$

Newly Derived Formulae

- Magnetic flux, $\Phi = BA = I\,R\,\pi\,137.036$

- Cross section area of an electron/photon, $A = \pi\,R^2\,137.036$

- Electric Field, $E = \dfrac{I}{t}$ Magnetic Field, $B = \dfrac{I}{r}$

- Electron volts, $eV = E \times r$

- Light speed, $c = \dfrac{r}{t} = \dfrac{1.380668031 \times 10^{-29}}{4.605412826 \times 10^{-38}}\,m/s$

- Von Klitzing constant, due to 186,

$$v = \dfrac{\lambda}{t} = \dfrac{1.188786353 \times 10^{-33}}{4.605412826 \times 10^{-38}} = 25812.80761\,m/s$$

Acceleration due to gravity, $g = a = Volts = \dfrac{m}{s^2}$

Resistance, $R = \dfrac{I}{m} A/kg$

The proton radius, $1.534697779 \times 10^{-11} m$

$$I^2 = F, force$$

$$Heat, H = 1.859222909 \times 10^{-9} \times \dfrac{v^2}{q} J/C$$

$$B^2 = \dfrac{I^2}{r^2} = \dfrac{F}{A} = Pr\,essure$$

Significance-Everyday Lives

- Ablation of Cells - Microbial & Cancer

- Real Time ECG

- Frontier Energy - Levitation

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