



The Ether and The Electrical Universe

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Abstract

Here we provide some basic calculations on the ellipsoid universe and the matter that makes it up called Ether. We see that, if we model the Ether as Teflon, a polymer, that certain constants drop out on the calculations. This paper is to be read with the Astrotheology series by the same author, especially the paper The Ether: The Universal Material.

Keywords: Ether; Capacitance; Teflon; Polytetrafluoroethylene

Introduction

Using well established formula from the Physics of Electricity, we show that the ellipsoid universe can be modeled as a giant capacitor with the characteristics of Teflon [1,2]. We calculate the Mass Gap; Forces; Power and Capacitance.

$$\begin{aligned} \Delta V / V &= \epsilon_0 E^2 \\ 19905 &= 88.5418 E^2 \\ E &= 149.15 \sim 150 = \text{Mass gap} \\ F &= \mu N \\ &= [0.05](1)(1/\sqrt{2}) \cos 60^\circ \\ &= 176.77 \\ &\sim \sqrt{\pi} = P \\ 176.77 \times \pi / 180^\circ \\ &= 3.06 \\ &\sim c \\ E = F / Q &= 3.06 / 1.602 = 19101 \\ E &= Q / [4\pi r_0 r^2] \bar{r} / r \\ 19101 &= 1602 / [4\pi (88.5) r^2 \end{aligned}$$

$$\begin{aligned} \bar{r} / r &= 132.6 \\ r = s = d &= 4 / 3 \\ r^2 &= 132.6 / (4 / 3) \\ r &= 3.15 \\ &\sim \pi \\ V &= iR \\ &= 4 / 3 (10^{18}) \\ 1.334 &(10^{18}) \\ P &= i^2 R \\ &= (4 / 3)^2 (10^{18}) \\ &= 1.777 (10^{18}) \\ &= \sqrt{\pi} \\ P &= VA \\ 1.777 &= 1.333 A \\ A &= \frac{4}{3} \end{aligned}$$

$$\begin{aligned}
 F &= \mu N \\
 &= (\cos 60^\circ)(0.05) \left(\frac{8}{3}\right) \\
 S.F. &= 8/3 \\
 &= 1.334 \\
 &= s \\
 F &= \mu N \\
 &= \mu Ma \\
 &= (0.05)(Ln1.5) \left(\frac{1}{\sqrt{2}}\right) \\
 &= 1585 \\
 &= 1 - \sin 1 = \text{Moment} \\
 Vol. &= \frac{4}{3} \pi R^3 \\
 &= \frac{4}{3} \pi (2\pi)^3 \\
 &= 0.14254 \\
 &= \sin 59^\circ
 \end{aligned}$$

For half a sphere: Vol=7.127³=6.65=G

Capacitance:

S.A. of ellipsoid:

$$= 2\pi (a^2 + ab \cos \alpha / \sin \alpha)$$

$$a = 1$$

$$b = 8$$

$$\alpha = \frac{\pi}{2}$$

$$= 9.836 \sim 10$$

$$C = \epsilon_0 A \epsilon_R / d = 1$$

$$4/3\pi = 8.854 \epsilon_R (9.836)$$

$$\epsilon_R = 0.04809 \sim 0.05$$

$$4\pi / [3 (88.54)(9836)] = 1 / \epsilon_R$$

$$\epsilon_R = 2.0788 @ 1MHz.$$

Teflon (Polytetrafluoroethylene) = Insulator



Density $\rho=2200 \text{ kg/m}^3$ (light weight concrete)

Young's modulus $E=0.5GPa$ cf 0.4233

Bulk Resistance = 10^{18}

Coefficient of Friction= $0.05-0.10=\mu$ (third Lowest)

Dielectric Strength $60MV/m=\alpha$

Magnetism $10.28 (10^{-6})$

Note that Teflon is similar in structure to Beryllium Dichloride. The Ether mimics both Teflon and $BeCl_2$. Note also that Teflon has the third lowest coefficient of friction. This property is conducive to the Super force generating space as we have shown above.

Permittivity of Free space

$$= 4\pi$$

$$= 1.2566$$

$$\sim E_{min}$$

$$H = I / [2\pi R]$$

$$= 4/3 / [(2\pi)(1)]$$

$$= 0.2122$$

$$B = \mu H$$

$$= (1.2566) (0.2122) = 2.666 = 8/3 = S.F.$$

Magnetic Energy Density

$$W_m = 1/ BH$$

$$= 1/2 (8/3)(0.2122) = 2829 = Ln 126 \sim Ln \rho$$

(Figures 1&2)

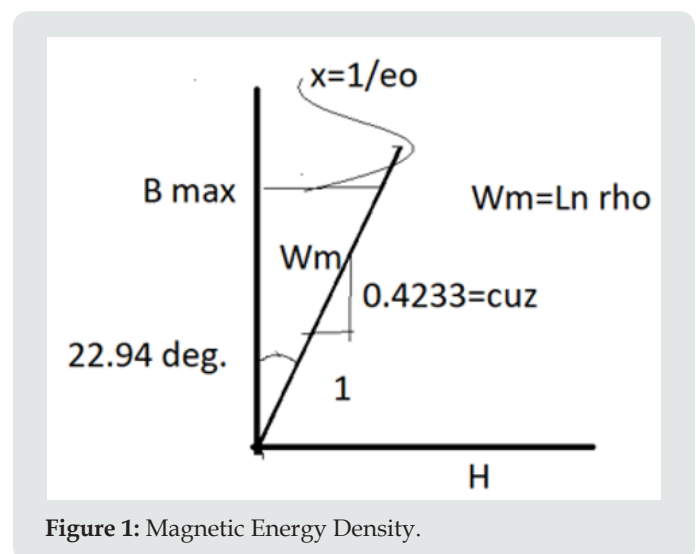


Figure 1: Magnetic Energy Density.

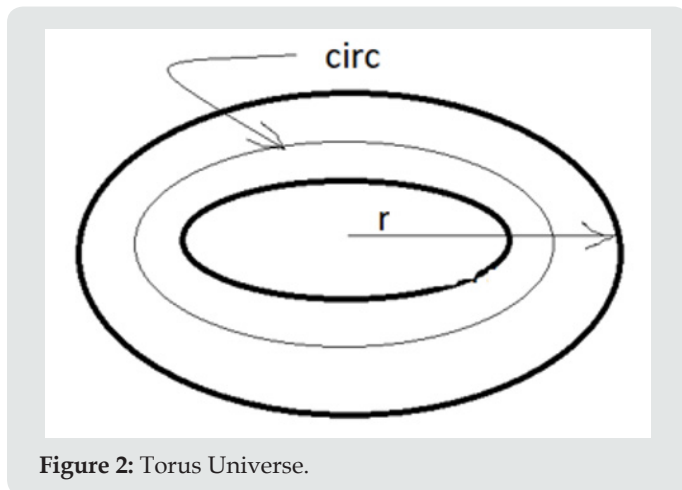


Figure 2: Torus Universe.

$$L = \mu l / [2\pi] [Ln (2l / r) - 3/4]$$

$$2 = 1.2566 l / (2\pi) [Ln 4.482 - 3 / 4]$$

$$l = 1 / 0.75$$

$$= 4 / 3$$

i

$$Ln (4.482) = Ln (2l / r)$$

$$1.5 = 2(4 / 3) / r$$

$$r = 1.777 = \text{sqrt } Pi$$

$$\text{Power } PP = i^2 R$$

$$1.777 = (4 / 3)^2 R$$

$$R = 3.159 \sim Pi = \text{Cap.}$$

For a loop (Torus Universe)

$$l = 4 / 3$$

$$r = 1.777$$

$$\text{Circumference} = 2\pi R$$

$$L = 2\pi(1.777) = 1.116$$

$$= 1 / c^2$$

Short Circuit Power:

$$P_{max} = 1 / 4 V_Q^2 / R_a$$

$$P = V \times A$$

$$= 1.25 \times 4 / 3 \times 4 = 0.666 = G$$

$$= V_Q^2 / R_a = P_k$$

$$R_{TOT} = R + 1 / C - L$$

$$= 0.4233 + 1 / \pi - 2 = 1.2587 \sim 4\pi$$

$$= \mu$$

$$c = 1 / [\sqrt{\epsilon \cdot \mu}]$$

$$= 1 / [\sqrt{0.8854 \cdot 4\pi}] 2.9979$$

Speed of electromagnetic radiation

$$dI(t) / dt = -1 / \tau(t) + V_0 / L$$

$$\tau = L / R = 2 / 0.4233 = 4.724$$

$$dI(t) / dt = -4.724(4 / 3) + (-1.25) / 2)$$

$$= -6.3 - 0.625 = -6.925$$

$$V_L(t) = V_0 e^{-t/\tau}$$

$$= -1.25 e^{\frac{-1}{4.724}} = -1.25 (0.80922) = -1.0115$$

$$I(t) = I_0 (1 - e^{-t/\tau})$$

$$= 4 / 3 (1 - 0.80922) = 0.143733$$

$$V(t) / I(t) = -6.957 \sim i(t) / dt$$

$$V = I R$$

$$V = 1 / I$$

$$1 / I = IR$$

$$1 = I^2 R = \text{Power}$$

$$f = 1 / \pi \cdot 1 / (8\pi)$$

$$\omega = 2\pi f$$

$$1 / 4 \cdot 1 / \pi$$

$$= 0.25$$

Period T

$$i(t) = i^{\wedge} \sin (\omega t + \phi)$$

$$4 / 3 \sin (0.25(0.396) + 60^\circ)$$

$$4 / 3 (0.99 + 1.047)$$

$$4 / 3 (0.99 + 1.047)$$

$$= 2.71626$$

$$= e^{0.999}$$

$$= e^{\wedge} -t$$

$$t = -0.999$$

$$T =$$

$$V = v \sin(\omega t + \phi)$$

$$= 1.25(203.7) = 254.625$$

$$= \text{Period } T = 1/t$$

$$E$$

$$E = -1.0115$$

$$t = -0.999$$

$$-0.999 + -1.0115 = dM / dt$$

$$0.99 + 1.0115 = -2 = dM / dt$$

$$\int dM / dt = \int (E + t) dM$$

$$M = (E + t)M$$

$$1 = (1/t + t); t = [1+t] / t; t^2 = 1+t; t^2 - t - 1 = 0$$

Golden Mean Parabola

Euler's Formula,

$$e^{i\phi} = \cos \phi + i \sin \phi$$

We know that $i = j = \sqrt{-1} = -0.618$ The Conjugate of the Golden Mean.

Let $\phi = \pi / 4$ so that :

$$\sin \phi = \cos \phi = 1/\sqrt{2}$$

$$e^{-0.618\phi} = \cos(\pi/4) + (-0.618) \sin(\pi/4)$$

$$e^{-0.618\phi} = 2.701 = v = \text{Poisson's Ratio}$$

Take the Ln of both sides:

$$-0.618\phi = \ln 0.2701$$

$$\phi = 0.2118$$

Now,

$$v(t) = v e^{i(\omega t + \phi)}$$

$$= v e^{-0.618((1)(1) + 0.2118)}$$

$$= -1.25 (0.4727)$$

$$= -59089$$

$$i(t) = i e^{i(\omega t + \phi)}$$

$$= 4/3(0.5011)$$

$$= 0.668$$

~ G

Resistance

$$Z = v / i$$

$$= 0.59089 / 0.668 = 0.884565$$

~ ϵ_0 = Permittivity of Free Space

Conclusion

We see that the field of electricity provides basic formula that can be used to model the ellipsoid universe.

References

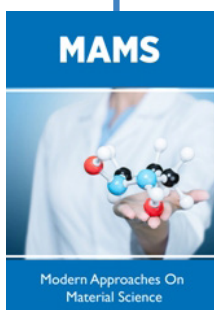
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