



GLOBAL JOURNAL OF SCIENCE FRONTIER RESEARCH: A  
PHYSICS AND SPACE SCIENCE

Volume 20 Issue 6 Version 1.0 Year 2020

Type : Double Blind Peer Reviewed International Research Journal

Publisher: Global Journals

Online ISSN: 2249-4626 & Print ISSN: 0975-5896

## Plasma & Astrotheology

By Paul T E Cusack

*Abstract-* How did the Superforce come into play? The answer lies in the plasma. In this paper, we consider the plasma and well-established equations. By these equations, we see that the plasma fits well into the theory of Astrotheology.

*Keywords:* plasma; astrotheology.

*GJSFR-A Classification:* FOR Code: 010107



*Strictly as per the compliance and regulations of:*



# Plasma & Astrotheology

Paul T E Cusack

**Abstract-** How did the Superforce come into play? The answer lies in the plasma. In this paper, we consider the plasma and well-established equations. By these equations, we see that the plasma fits well into the theory of Astrotheology.

**Keywords:** plasma; astrotheology.

## I. INTRODUCTION

In this paper, we consider some calculations drawn from the well-established theory of plasma making use of Astrotheology parameters already determined. We see that using previously determined parameters, that the plasma fits in to our theory on Astrotheology. In the final analysis, the Superforce is created by the pinch of plasma when a current is passed through it. We begin with the ionization energy of PTFE(Teflon.)

$e^-$  = electron = 1.60217733 Coulomb's

90 = ionization energy

1.60217733<sup>90</sup>

= 2.6543

= S.F. - 0.123

0.123 = 1/81 = 1/c<sup>4</sup>

$e^- + 1/c^4 = \text{S.F.}$

Pressure + Potential Energy (Mass) = Superforce

Bernoulli's Theorem

$P + mgh + 1/2 \rho v^2 = C$

Pressure + P.E. + K.E. = C

Electricity = movement of electrons = K.E. = current = 4/3

S.F. = C - K.E.

2.666 = C - 1/2  $\rho v^2$

K.E. = 1/2 (127.3)(1/√2)<sup>2</sup>

= 0.318 = 1/π

8/3 = C - 0.318

C = 2.984 ~ c

Pressure + P.E. + K.E. = C

P + P.E. + c = C

E = Mc<sup>2</sup>

c<sup>2</sup> = E/M = 1/ (1/c<sup>2</sup>) = 9

c = 2.9979

Coulomb Logarithmic Equation

$\ln \Lambda = \ln (aT^{3/2}) / \sqrt{n_e}$

=  $\ln (1 \times 300^{3/2}) / \ln 2.6543$

= 1.1427

$\Lambda = 0.318 = 1/\pi = \text{freq.}$

$\ln 1.1427 = 1.3333 = 4/3 = s$

Bennett:

$I^2 = 8\pi/\epsilon_0 \times N k_B T$

$(4/3)^2 = 8\pi / 0.854 \times N (1.308)(300)$

N = 151.277

151.277 / 1.60217733 Coulombs = 944.196

944.196 - 5.11 = 939.08 ~ M p+

Spitzer formula

$\sigma = 64 \sqrt{(2\pi)} (\epsilon_0)^2 / [(e_e \sqrt{Me-}) [k_B T]^{3/2} / [\ln \Lambda]$

= 64 (6.28 x 8.854<sup>2</sup>) / [(1.602)(√0.511)(1.308)(300) / [1.15127]

= 7.01 / 151.27

= 0.4637

V = iR

= (4/3)(0.4637)

= 0.618

= t<sub>0</sub>

Langmuir frequency of electron oscillation

$\omega_{pe} = \sqrt{[(e_e)^2 n_e / \epsilon_0 \times M e-]}$

= √[(1.602)(2.6543) / [8.854 x 9.109]

= 290656

~ 291

290656/2

ω = 145328

σ = (e<sub>0</sub>)<sup>2</sup> n<sub>e</sub> τ / Me-

= (1.602)<sup>2</sup> 63795 / 0.511

τ = 14469

ω/τ = 145328 / 14469

**Author:** BSc E, 23 Park Ave, Saint John, NB E2J 1R2, Canada.  
e-mail: St-michael@hotmail.com

$$=0.9956 \sim 1$$

$$\omega/\tau [=] \text{ acceleration}$$

$$a=\omega/\tau \sim 1.0$$

$$s = \int f a = \int a^2/2 = 2a^3/(2 \times 3) = 1/6$$

$$v=a^2/2=1/2$$

$$v=d/t$$

$$t=d/v=1/6/1/2=1/3$$

$$d=vit + 1/2at^2$$

$$=1/2 (1)(1/3)^2$$

$$=0.0555$$

$$\text{Circ}/=2\pi R$$

$$dC/dt=2\pi dR/dt$$

$$2\pi(1/6)$$

$$d\text{Circ.}/dt=\pi/3=60^\circ$$

$$\text{Optical Depth}$$

$$\tau=\int \kappa dx$$

$$14469=\kappa^2/2$$

$$\kappa=170.111$$

$$170.111 \text{ reduced by } 1/e=0.367879$$

$$=62.58$$

$$170.111-62.58=107.531$$

$$107.531^7=1.6624 \sim 1/6=s=dR/dt$$

$$\text{Magnetic Pressure}$$

$$P=B^2/[2\mu]$$

$$=23537^2/(2 \times 0.8854)$$

$$=0.319$$

$$=1/\pi$$

$$=\text{freq.}$$

$$\text{Magnetic Flux Density}$$

$$F=QBv \sin \alpha$$

$$8/3=1.602 (B)(1/\sqrt{2}) \sin 90^\circ$$

$$B=2.3537$$

$$\text{Langevin Equation}$$

$$ma=q(v \times B) + F - mfv$$

$$8/3=1.602 (1/\sqrt{2} \times 2.3537 \sin 60^\circ) + 0 + mfv$$

$$mfv=23986 \sim 24$$

$$mf=16958 \sim 170=\kappa$$

$$9.109f=1.70111$$

$$f=0.18675$$

$$E=hf$$

$$=6.626(0.18675)$$

$$=0.123$$

$$=1/81$$

$$=1/c^4$$

$$\text{Eccles' Refractive Index}$$

$$n=[1-\omega_{pe}/\omega]$$

$$=\sqrt{[1-0.291/1]}$$

$$=\sqrt{[1-0.291]}$$

$$=\sqrt{[0.709]}$$

$$=0.8420$$

$$=\sin 57.35$$

$$=\sin 1$$

## II. THE PINCH

The Superforce is generated by the pinch when a current flow through the plasma. The pinch is a pressure that compresses the plasma causing the Superforce.

$$f=J \times B$$

$$J=I=4/3$$

$$f=(4/3)(23537) \sin 1$$

$$=1.333 \times 2.3537 \times 0.8420$$

$$=2.642$$

$$=2.654$$

$$=\text{Pressure}$$

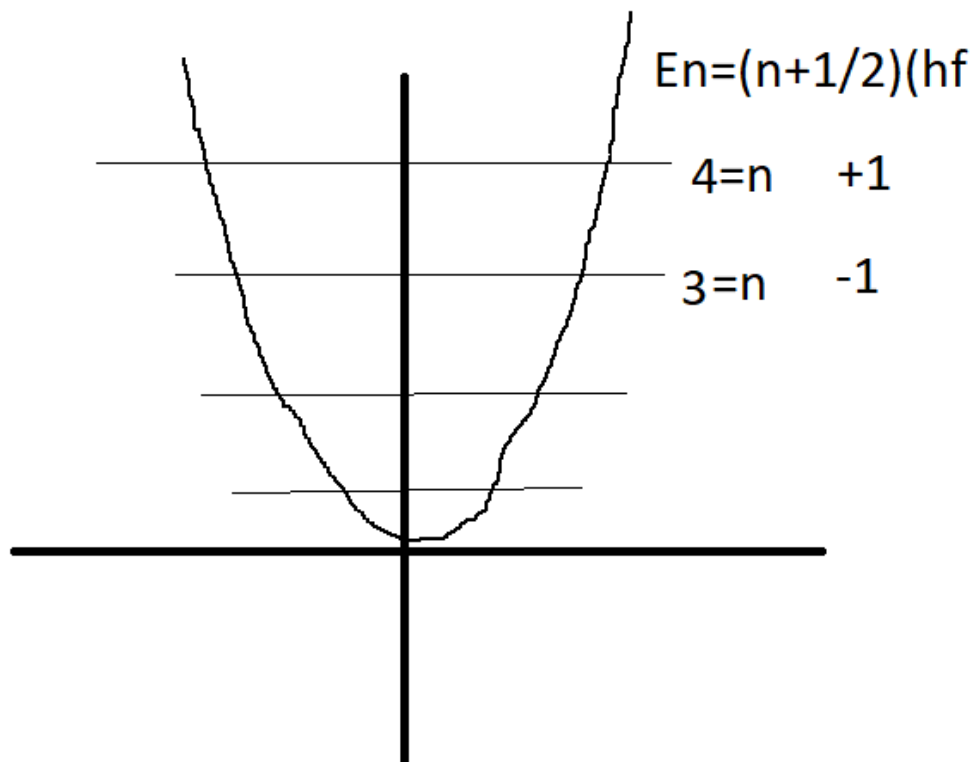


Figure 1: Energy Eigen Values

$$(4 + 1/2)((123.7/2\pi) - (3 + 1/2)(123.7/2\pi))$$

$$= 127.3$$

= density

$$127.3/0.4233 = 3.00 = c$$

$$PV = nRT = \text{freq.}$$

$$(Ma/A) V = \text{freq.}$$

$$(100)\sin 60^\circ (1/\sqrt{2})(19905)/0.18675 = A$$

$$A = 6.518$$

$$= G_0$$

### III. CONCLUSION

We see that the Astrothology theory fits in well with established formulae in plasma theory.

### REFERENCES RÉFÉRENCES REFERENCIAS

1. Benbenson, W., et al Handbook of Physics Springer 2002.