

## Generalized Lie Theory and AT Math

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### Abstract

Here we provide the step by step procedure to end that the Generalized Lie Theory converges to one solution, that is the Universe. We consider the Hyperbola; Rotation Matrix, the Cross and Dot Products; Euler's formula, Communicator, and Astrotheology Mathematics. They all converge to one final solution.

**Keywords:** Unit hyperbola; Orthogonal rotation matrix; Cross product; Euler's formula; Communication; Clairnaut; Golden mean parabola; Ln function; Resistance to mass

### Introduction

In this brief paper, e being by considering the various components of Generalized Theory. We see they all converge upon one solution, namely, the Astrotheology Model of the Universe. This paper consort is properly understood until the reader is familiar with the AT Math.

### Unit hyperbola

$$X^2 - Y^2 = 1$$

$$\cos^2(\pi/4) - \sin^2(\pi/4) = 1$$

### Orthogonal rotation matrix

$$A = |\cos \theta \sin \theta|$$

$$|\sin \theta \cos \theta|$$

$$|A|=1 \text{ when } \theta=60^\circ \text{ Superforce}=\sin 60^\circ [1]$$

$$\text{Cross product} = \text{dot product} \rightarrow \text{Space s} [2]$$

$$s = |E|t|\sin \theta$$

$$E = 1/t$$

$$s = (1)(1)\sin(\pi/4)$$

$$= 1/\sqrt{2} = \sin 45^\circ = \cos 45^\circ \rightarrow \text{Dot Product} = \text{Cross Product}$$

$$\theta = \pi/4 = 45^\circ$$

### Euler's formula

$$\cos^2(45^\circ) + i \sin(45^\circ) = e^{it}$$

$$i = -0.618 \text{ Let } t=2 \text{ communicator } t=2 \text{ Vector} [3]$$

$$E = e^{(0.618)(2)} = 1/0.809 = 1/c^4 = 0.12345679$$

$$(1/\sqrt{2})^2 + (-0.618)(1/\sqrt{2})^2 = 1/2.9997 = 1/c$$

$$1/c = (1/c^4)^{0.250}$$

$$T = 0.250 = 1/t \Rightarrow t = 0.4 = 1 \text{ rad } t = 1$$

### Clairnaut differential equation [4]

$$y = y' = y'' = v = a = (-\sin \theta) = \cos \theta \text{ and } d^2E/dt^2 = G [1]$$

$$d^2E/dt^2 - E = 0$$

$$\int \int d^2E/dt^2 = \int \int E$$

$$\int \int G = E^3/3$$

$$G^3/3 = E$$

$$6.67^3/3$$

$$= 9.89$$

$$= E = 1/t$$

$$t = 1/0.989 = 1.01 \sim 1$$

### Golden mean

$$t^2 - t - 1 = E$$

$$(1.01)^2 - 1.01 - 1 = 0.9899 = 1/1.01 = dE/dt$$

### LN function

$dE/dt = 1$  when  $t = 1$  and  $E = 0 \rightarrow$  Conservation of Energy (Figure 1).

$$E = e^{-t}$$

$$= e^{-1}$$

$$= 1/e$$

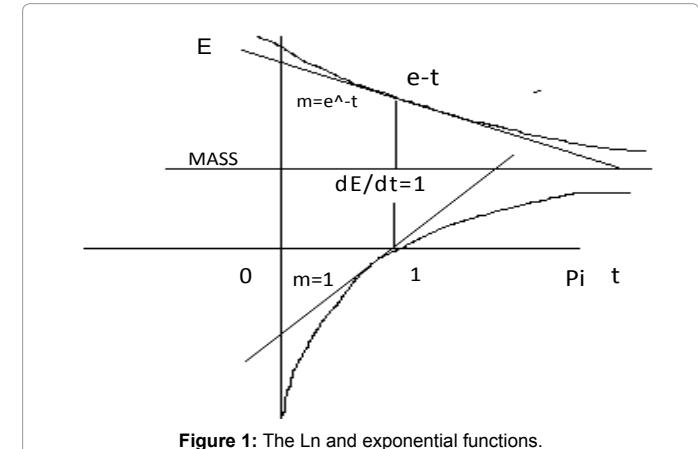


Figure 1: The Ln and exponential functions.

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cf. Damped Cosine

$$Y=e^{-t} \cos(2\pi t)$$

Let  $Y=E$  and  $t=1$

$$E=Y=e^{-1} \cos(2\pi)$$

$$E=1/e$$

$$\text{And } E=e^{-\pi}=0.04321$$

$$1-E=1-0.0=1=E$$

$$1-1/t=1/t$$

$$1=2/t$$

$$t=2$$

### Golden mean

$$(2)^2-2-1=1=E \quad E=1 \text{ and } t=2$$

$$E=e^{-t}-R_m=0.43214-\text{cuz}=0.0084=\varepsilon_0 \rightarrow \text{Permittivity of space}$$

$$\ln(0.884)=0.123=1/c^4=e^{it} \text{ where } i=0.618 \text{ and } t=2$$

### Resistance to mass formation

$$R_m=(\pi-e)=\text{cuz}=(t-E)$$

$$(t-E)=Y=E$$

$$t=2E$$

$$E=1=t/2 \rightarrow t=2 \text{ vector}$$

### Golden mean equation

$$1+t=t$$

(Note: For the Damped Cosine,  $Y=e^{-t} \cos(2\pi t)$ ,  $E=1/t=1$  when  $t=1$ ,  $Y=0.202$  at the beginning of the dampening or  $t=0$ . Another way, when the  $\ln$  function crosses the x axis at  $t=1$ , the damped cosine begins, or  $t=0$ ).

### Derivative

$$0+dt/dt=dt/dt$$

$$0+1=1 \text{ True!}$$

$$1+t=t$$

$$(t+1)/t=t$$

$$t^2=t+1$$

$$t^2-t-1=0 \rightarrow \text{Golden Mean Equation.}$$

### Conclusion

The solution of Generalized Lie Theory converges to the Specialize Lie Theory, or Astrotheology, Cusack's Universe.

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