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Solution to the Riemann Hypothesis

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1. Introduction

We consider arguably the most difficult outstanding math problem. We make use of AT Math to make progress on this problem. We alsocalculate the value of the imaginary number. We use our knowledge of AT math and Astrtothehogy to help us along.

Identity of the Imaginary Number, j

$j^2=-1$

$j=\sqrt{j^2}=\sqrt{(-1)}=-\sqrt{(1)}=\pm1=E$

$j^2=-1$

Golden Mean Parabola

$t^2-t-1=\pm1=E=j$

$t^2-t-1+j^2=\pm1+j^2$

$\pm1\pm j^2=-j^2$

$-1+-0.618=-1.618$

Therefore $\mathbf{j^2=-}0.618$

$+1-1.618=-0.618$

Therefore, $j^2=-1.618$

These are the Roots of the Golden Mean Parabola

Since we are dealing with a circle, sine and cosine must be <1. Therefore,

$\mathbf{j^2=}\sqrt{-1}=-0.618$

QED

Note: Negative time is Imaginary too. The Physical Universe begins at t=0; E=-1 on the Golden Mean Parabola.

$\zeta=1/2 + it$

We already have shown that $\sqrt{(-1)}=-0.618$, root of the Golden Mean Parabola.

Let t=1

$\zeta=1/2+ (-0.618)(1)$

$=-0.1183$

Mass of thePeriodic Table is maximum at 118 amu.

$\zeta=1/2-(-0.618)(1)$

$=1.118$

$=1/c^2$

$PE=Mc^2$

$M=1/c^2$

Therefore E=1

E=1/t

1=1/1

True!

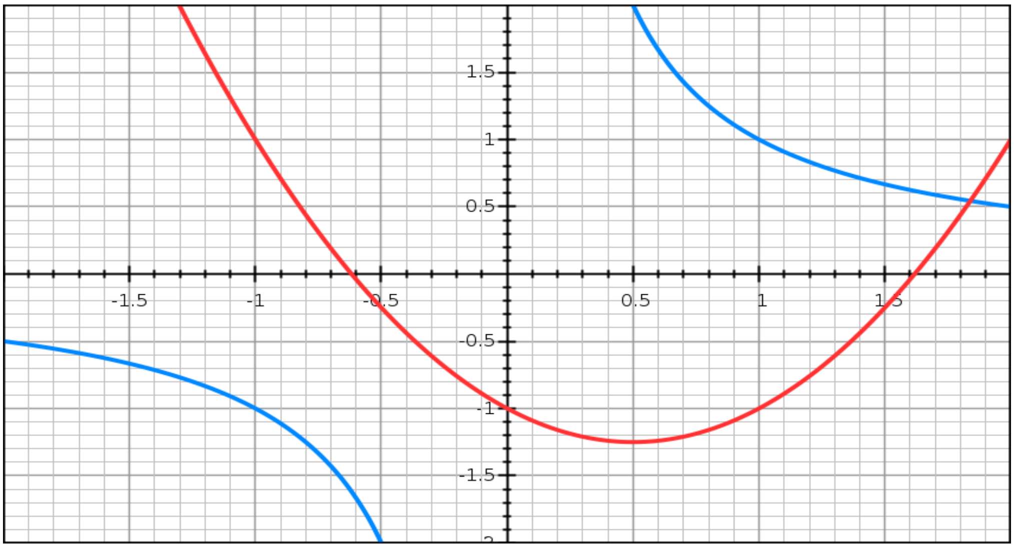

Figure1: *Plot of E=1/t; t^2-t-1=0 Critical point 1/c^2*

If we consider the Golden Mean Parabola, time is imaginary preceding t=0

At t=-0.618, E=0 is a root.

t^2-t-1=0=E

Roots

t=-0.618; 1.618

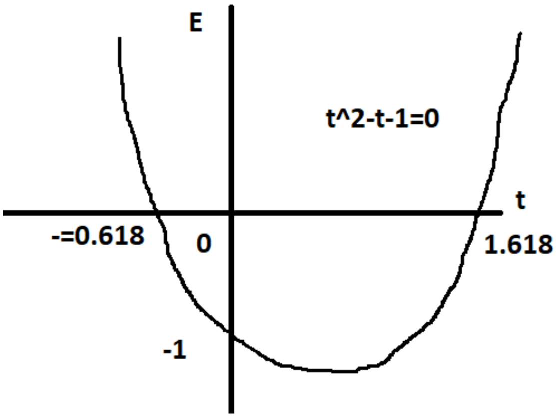

Figure2: *Golden Mean Parabola*

And we already know that

t^2-t-1=E

E=1/t

t=1/E

$(1/E)^2$-(1/E) -1=1/t

Let t=1

1/t=1/1=1 E=1

Multiply through by E^2

$1-E-E^2=E^3$

$-E^2-E+1=E^3$

$E^2+E-1=E^3$

$E^2+E-1=1$

$E^2-E-2=0$

Let $t=0$

$E^2-E-2=t$

$t=E^2-E-2$

t=E^2-E-2

$=E\ (E-1)-2$

=Always even – even =even

$=0^2+0-2$

$=-2$

$E=-1/2$

$\zeta=1/2 + it$

$=1/2+ (-0.618)\ (-2)$

$t=\sqrt{3}$

t=eigenvector

$E=1/\sqrt{3}=\cot 60°$

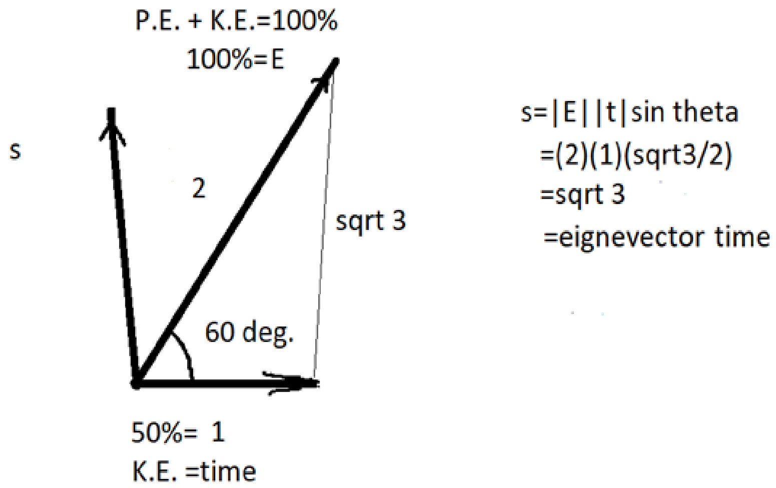

Figure3: *Time is the eigenvector*

$\zeta=1/2 +it$

$=t_{min}+ (\sqrt{-1})t$

$=t_{min}+(t^2-t-1)t$

$=t_{min}+t^3-t^2-t$

$=t^3-t^2=0$

$t(t^2-t)=0$

$t=0$

$(t^2-t)=0$

$t\ (t-1)=0$

Always Even =0

t=0; t=1

Now M=Ln t

t=1

M=Ln 1=0

Mass is 0 at t=1

A plot of the ln function shows that E=0 at t=1.

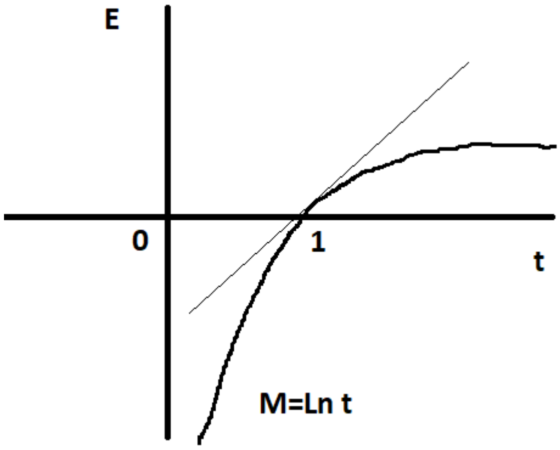

Figure4: *Ln function*

2. CONCLUSION

We hope this helps us make progress on the Riemann Hypothesis.

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