

Convergence of Physical Mathematics

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Abstract

Herein we consider the imaginary number and how it leads to the convergence of all mathematics, its ultimate purpose. The golden Mean is interplayed with geometry, and calculus, and linear algebra. We show that transcendental and trigonometry is important in the convergence of mathematics. Finally, the physical universe parameters are considered as the proof of mathematical convergence.

Keywords: Convergence; Mathematics; Energy; Time; Space; Gravity; Mass; Complex numbers

Introduction

When we consider the philosophical implications of practicing mathematics, we realize that the purpose of all mathematics is convergence. There is only one solution to all of mathematics.

If we consider Geometry, it is spatial relationships, for example the circle or triangle. Algebra is relationships between numbers, or relative portions. Every number is a fraction or multiple of "1". Calculus is the relationship between numbers and space recreative to a variable such as time. This is true "relativity." Lineal Algebra or matrices is the same thing as geometry, just expressed in a different format. So Mathematics is all about relativity between numbers (or proportions) and space. So, what is the ultimate proportion?

The ultimate proportion is expressed in the golden mean parabola. It is expressed by:

$$X=1/ [X-1];$$

Or

$$f(X)=X^2-X-1=0.$$

So how does the Complex Number fit into Convergence of Mathematics?

The Imaginary Number, $I^2=-1$

If we let $\text{SQRT}(-1)=-0.618$, we see:

$$-0.618=1/(-0.618)-1$$

$$-0.618=1/-1.618$$

True!

So then $\text{SQRT}(-1)=-0.618$

Consider the golden Mean Equation again.

$$\text{SQRT}(-1)=1/[1-\text{SQRT}(-1)]$$

$$(\text{SQRT}(-1))(1-\text{SQRT}(-1))=1$$

$$\text{SQRT}(-1)-(-1)=1$$

$$\text{SQRT}(-1)=0$$

So consider the golden mean parabola.

$$_f(X)=X^2-X-1=0$$

$$\text{But } \text{SQRT}(-1)=0$$

So,

$$\text{SQRT}(-1)+1=X^2-X$$

Therefore,

$$1=X^2-X$$

$$X^2-X-1=0$$

Golden Mean Parabola!

Let's look at the plot of the golden Mean Parabola (Figure 1).

$$\text{SQRT}(-1)=1/[1-\text{SQRT}(-1)]$$

$$1-\text{SQRT}(-1)=1/\text{SQRT}(-1)$$

$$1=1/\text{SQRT}(-1)$$

$$\text{Sqrt}(-1)=1/1=1$$

$$\text{SQRT}(-1)=1$$

So the $\text{SQRT}(-1)=0$ & $=1$ & -0.618

"0" is continuous; 1 is discrete; and -0.618 is the Conjugate of the Golden Mean [1,2].

The Universe:

$$y'/y=1$$

$$\{2t-1\}/\{t^2-t-1\}=1$$

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

$$T^2-t-2t=0$$

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

$$T(t-3)=0$$

$$T=0,3$$

$$\text{But } 0=\text{Sqrt}(-1), c=3$$

$$C=d/t=3$$

$$Ct=d$$

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- Space is the result of crossing the vectors Energy and time.
- Mass is the Sqrt of space= $1/\sin t=1/F$ where F is the Superforce, and $t=\sin 60$ degrees.
- Everything apparent in the universes skewed by 60 degrees.
- Time is an eigen vector= $\sqrt{3}$.
- $\cot 60 \text{ degrees}=1/\sqrt{3}=0.5774=\sin 0.615 \text{ rads} \sim \sin(\sqrt{-1})=1/1624=1/\text{Mass of a Proton}$.

Conclusion

Mathematics is an imaginary element that exists within the mind

that has real results in the physical world. Therefore, because the real results are evident in the physical world, then mathematics must match that world. We see this convergence expressed in mathematics in Figure 1. There is only one solution to all mathematics. Various Branches all converge upon one solution.

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