General Physics Notes (10262026):

We have to discuss the relevance of all connected things. As such it makes sense to not only talk about the neural network, but the connected diagrams of Feynman and the more esoteric mathematical connected diagrams. At General Physics we support the Penrose interpretation of a physical world, built with chaos, volatility, stochastic behavior, turbulence, randomness, inhomogeneity, oscillations, disruptions, and the informational complexity that defines so much that even the descriptions of the instabilities are themselves unstable. Self-referentiality is a recurring concept in the Penrose picture, with a physical world building a mental substrate on which a mathematical formulation is created. This is the basis for the construction of the modified zeta calculus. Thanks to the work of some of our tireless scientific constituents and associates, we have regularized a formation of zeta modified fluxions that involves the fundamental theorem of calculus. We approach many problems in physics with a rigorous calculus and everything that involves the nature of mathematics will be changed. Although some may think the mastery of zeta calculus is possible, it is only relevant to talk about the connection of the deterministic fitting of mental approaches to the zeta calculus rather than an orthogonal other reference frame. The nature of the zeta implies that the practitioner is embedded in the Penrose picture, embedded with the mathematics itself. This is the heart of the zeta calculus, something that makes mathematics so real, that it will forever change how we approach generational developments, A.I., neural networks, and Fourier analysis.

We start with the four vector:

$$s_{i,j,k,t} = x^2 + y^2 + z^2 - c^2t^2 \tag{1}$$

Then we develop a method of analyzing curves with fluxions:

$$f(x) = \int \frac{\partial f(x)}{\partial x} \partial x \cdot \zeta(s,t) \tag{2}$$

This can be rewritten:

$$f(\lambda) = \int \frac{\partial f(\lambda)}{\partial x} \partial x \cdot \zeta(x^2 + y^2 + z^2 - c^2t^2) \tag{3}$$

We can alternatively write:

$$f(s) = \int \frac{\partial f(s)}{\partial s} \partial x \cdot \zeta(s) \tag{4}$$

The self similarity is in the zeta's Γ function:

$$\zeta(s) = 2^s \pi^{s-1} \sin \frac{\pi s}{2} \Gamma(1-s)\zeta(1-s) \tag{5}$$

The trick is in the turbulent dynamics and mathematics related to the primes and the dimensions of Γ:

$$\Gamma(s)\Gamma(1-s) = \frac{\pi}{\sin(\pi s)} \tag{6}$$

We have to recover the primes as they indicate chaotic basis states:

$$\zeta(s) = \prod_{p=prime} \frac{1}{1-p^{-s}} \tag{7}$$

Only from a really good understanding of calculus, may we venture into the creation of a new system to approach the symplectic structure of an informational sheet world. We have to uncover real values, real turbulence, and real behavior. Punctuated equilibrium, inflation, and Brownian motion are critical parts of a thermodynamic and mathematical-statistical approach. By using a zeta calculus, we arrange EOMs into a system of equations related to prime numbered basis turbulence and as such, we can impart deterministic order to many chaotic systems.