

If GAAP, then $P \neq NP$

Clynn's Natural law of Complex Value

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Core Definitions

If GAAP,

Commodification

Every commodity exists as an informational idealization scaled by a commodification constant k and diminished by an impurity term s_i :

$$A_i = ka_i - s_i. \quad (1)$$

Here, a_i is the real instance of the commodity, s_i represents informational impurity or entropy, and k sets the scale of idealization (e.g., the unit definition of informational correspondence).

Total Asset

The total asset value of the system is the sum over all indexed commodities:

$$A = \sum_i (ka_i - s_i). \quad (2)$$

This expresses the realized informational value of all commodified phenomena within the system.

Liability (Definition)

Liability L is defined as any quantity that satisfies the zero-balance condition at settlement:

$$A - L = 0. \quad (3)$$

This expresses the conservation of value across the system—each act of commodification produces a corresponding liability.

Natural-Law Growth

Let $N(t)$ denote the observable surplus or net realizable value. The system evolves continuously according to the exponential interest equation:

$$N(t) = N_0 e^{-rt}, \quad r > 0. \quad (4)$$

This represents continuous compounding under inward decay—an exponential contraction toward equilibrium or liability settlement.

Rotational Gödel–Einstein Embedding

Embedding the continuous-interest equation in a rotational Gödel–Einstein time-space yields an inward logarithmic spiral.

Let $x(t) \in \mathbb{R}^2$ evolve as

$$\dot{x}(t) = (-rI + \omega J)x(t), \quad J = \begin{bmatrix} 0 & -1 \\ 1 & 0 \end{bmatrix}, \quad (5)$$

where $r > 0$ is the inward compounding rate and ω is the angular velocity of rotation.

The closed-form solution is

$$x(t) = e^{-rt} R(\omega t) x(0), \quad R(\theta) = \begin{bmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{bmatrix}. \quad (6)$$

The trajectory of each point forms an inward logarithmic spiral:

$$\|x(t)\| = \|x(0)\| e^{-rt}, \quad (7)$$

$$\arg(x(t)) = \arg(x(0)) + \omega t. \quad (8)$$

Alternatively, expressed in complex form:

$$z(t) = z_0 e^{(-r+i\omega)t}. \quad (9)$$

This embedding represents rotation (phase progression) combined with exponential contraction (inward compounding toward settlement), consistent with the natural law of value.

Summary

- Commodification: $A_i = ka_i - s_i$.
- Total Asset: $A = \sum_i (ka_i - s_i)$.
- Liability: $A - L = 0$.
- Growth Law: $N(t) = N_0 e^{-rt}$.
- Rotational Embedding: $z(t) = z_0 e^{(-r+i\omega)t}$.

Together these express the Natural Law of Value: a continuous, inward-compounding informational equilibrium—a universe where every asset contains its mirror liability and evolution follows an exponential spiral toward balance.

Thus if GAAP $P \neq NP$, I leave it as an exercise for the reader to prove the domain of their work exists outside of GAAP.