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The Anisotropic Trajectory Solution in Ultra Hyperbolic Manifolds: Formulating the Eigen-Intent Operator (W ˆ)

Thomas Christian

Weissflog Department of Physics, Brock University St. Catharines, Ontario, Canada

Abstract

Theoretical extensions of spacetime to higher dimensions frequently grapple with the instability of macroscopic matter when extra temporal axes are introduced. In a six- dimensional ultrahyperbolic spacetime (M3,3), characterized by three spatial and three temporal dimensions, standard passive geodesics collapse into divergence blurs, present- ing a fundamental barrier to physical coherence. This paper introduces the Eigen-Intent Operator (W ˆ), mathematically defining "micro-will" not as a biological artifact, but as an intrinsic physical mechanism required to lock quantum trajectories along a singular, cohe- sive temporal vector. Without this active phase-locking operator, wave functions inevitably bleed across alternative dimensions of causality, causing immediate material dissolution.

1. Introduction:

The Problem of M3,3 Topology

In standard four-dimensional general relativity (M3,1), time operates as a linear, passive pa- rameter forcing matter forward along a single, unidirectional track. However, attempts to unify quantum observation mechanics with macroscopic spacetime have led researchers to construct six-dimensional spacetime models. The most stable formulation of this is the Inherently Spin- ning Spacetime (ISST) under an ultrahyperbolic SO(3,3) metric group, yielding three spatial dimensions (x, y, z) and three temporal axes (tx, ty, tz).

The critical flaw of an unconstrained (3+3) manifold is the behavior ofthe partial differential equations governing wave propagation. Because the metric signature is split evenly, the resulting field equations are ultrahyperbolic:

$$-X\partial 2\Phi \quad = 0 \ \partial t2 \quad X\partial 2\Phi \qquad 3 \qquad (1)$$
$$\mathbf{j} \qquad\qquad\qquad\qquad \partial x2$$
$$\qquad\qquad\qquad\qquad\quad i=1 \qquad i \qquad j=1$$

In this geometric environment, an object devoid of a constraining vector lacks a single determin- istic future. Instead, its worldline splits into a three-dimensional temporal surface, causing the object to smear across competing temporal frameworks until its cohesive wave function entirely undergoes destructive interference.

2. The Eigen-Intent Operator ($\hat{W}$) as a Physical Necessity

To preserve the structural integrity of matter within a multi-temporal topology, we postulate that matter must possess a fundamental anchoring variable. We define this as the Eigen-Intent Operator, denoted as $\hat{W}$[1]

Rather than relying on panpsychist philosophy, $\hat{W}$ is frameworked strictly as an active gauge field or trajectory modulation system. It functions by continuously evaluating the three- dimensional manifold of temporal possibilities and applying a phase-locking constraint that restricts the object's evolution to a singular diagonal line:

$$\hat{W}\,|\Psi(t_x,t_y,t_z)\rangle = \lambda|\Psi(t_{cohesive})\rangle \qquad (2)$$

Where λ represents the directional eigenvalue matching the required structural velocity of the system. In this context, "micro-will" is the intrinsic capability of physical systems to resist temporal divergence. A fundamental particle must maintain its internal geometric agreement or instantly cease to exist within the localized coordinate matrix.

3. Macroscopic Implications: From Atoms to Conscious Agency

When applied to different scales of matter, the Eigen-Intent operator yields two distinct tiers of behavior:

1. Passive/Rigid Constraints (Non-Conscious Matter): In crystalline structures or subatomic particles, $\hat{W}$ behaves as a fixed, immutable tensor. A rock or an electron possesses a rigid directional value that permanently locks its trajectory onto a linear, diagonal path across the 3+3 landscape. This makes their decay patterns mathematically predictable.
2. Dynamic Constraints (Conscious Organisms): In highly organized, complex bio- logical networks, the operator scales into a dynamic vector field. Living entities do not merely drift along a pre-set diagonal; they actively steer across the two-dimensional tem- poral plane, modulating their rate of aging relative to their cognitive causality.

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