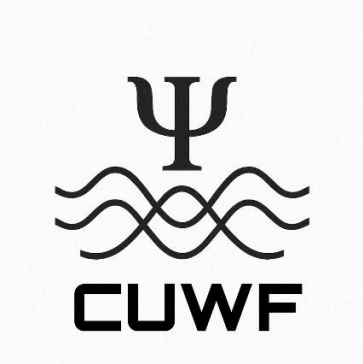

Chayut Universe Wave Function

Paper A-3 : Entropic Geometry

The Foundations of CUWF, The Pre-Metric Substrate of Physical Reality

Title: Chayut Universe Wave Function (CUWF) Paper A-3 Entropic Geometry: The Foundations of CUWF, The Pre-Metric Substrate of Physical Reality

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Abstract

Paper A-3 establishes the foundational geometric architecture of the Chayut Universe Wave Function (CUWF) by developing entropic geometry as the pre-metric structure from which physical reality emerges. Within this framework, the fundamental substrate of the universe is a continuous wave background, while the observable phenomena of physics arise from the behavior of an entropic field $E(x)$, its gradient ∇E, its curvature $\nabla^2 E$, and its evolution with respect to degrees of freedom.

The paper shows that gravity, mass, inertia, cosmic expansion, time, the quantum–classical transition, measurement, decoherence, and entanglement need not be treated as separate foundational mechanisms. Instead, they are reinterpreted as unified consequences of one entropic–geometric architecture governing wave behavior and collapse-node stability. The analysis proceeds from ontology to mechanism, then from mechanism to mathematical structure, and finally to explicit proofs demonstrating how the CUWF master equations generate the principal physical behaviors traditionally distributed across separate theories.

In this way, Paper A-3 serves as the central architectural paper of the A-series. It consolidates the conceptual foundations of earlier CUWF work, presents the geometric-level master equation of the theory, clarifies its relation to the deeper full wave-dynamic formulation, and establishes a coherent bridge toward the more specialized developments of subsequent papers. The result is a unified geometric map in which physical reality is interpreted as the emergent expression of entropic geometry on a continuous wave substrate.

Keywords

CUWF; entropic geometry; Fundamental Background Wave; collapse nodes; emergent time; emergent spacetime; gravity as entropic descent; mass as curvature depth; quantum–classical boundary; decoherence; entanglement; DOF evolution

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