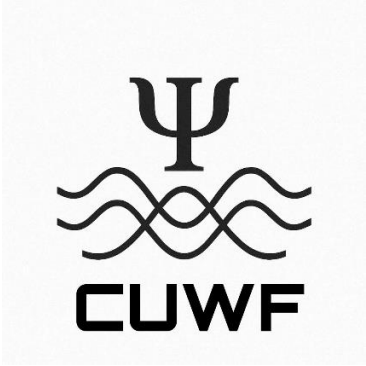

Chayut Universe Wave Function

Paper A-15 : Dark Matter and Dark Energy Revisited

A Structural Reinterpretation of the Dark Sector through Entropic Manifold Dynamics

Title: Chayut Universe Wave Function (CUWF) Paper A-15 Dark Matter and Dark Energy Revisited: A Structural Reinterpretation of the Dark Sector through Entropic Manifold Dynamics

Author: Chayut Techasamran

Affiliation: Independent Researcher, Thailand

Correspondence: cuwfwave@gmail.com

Date: 23 October 2025

Abstract

This paper proposes a structural reinterpretation of the cosmological dark sector within the Chayut Universe Wave Function (CUWF) framework. Rather than treating dark matter and dark energy as two independent hidden substances added to an otherwise geometric cosmology, A-15 argues that both classes of observations can be re-read as macroscopic consequences of one active entropic manifold. The framework begins from the Still Wave as an undisturbed informational baseline, then introduces the entropic manifold Ω^E as the first emergent configuration topology. Within this ontology, local entropy curvature imbalance produces entropic tension $\tau^E(x)$, while large-scale evolution of accessible configuration volume produces breathing acceleration $a^B(t)$. The paper develops a unified dark-sector relation linking these two responses, reconstructs flat galaxy rotation curves without dark matter halos, reinterprets excess gravitational lensing as effective curvature from manifold distortion, replaces vacuum-driven late-time acceleration with collapse-driven breathing relaxation, and argues that structure-modulated expansion is not a residual anomaly but an expected phase signature. A-15 also proposes qualitative empirical discriminators, including entropy-topology correlations in galactic

dynamics, harmonic modulation of expansion history, and void-region tension inversion. The broader claim is ontological: what standard cosmology treats as missing substances may instead be misunderstood structure. The paper therefore replaces a dual-substance dark-sector inventory with a single structural mechanism based on entropic geometry, tension, relaxation, and breathing.

Keywords

CUWF; dark matter; dark energy; entropic manifold; entropic tension; breathing acceleration; cosmological constant problem; ΛCDM; rotation curves; gravitational lensing; cosmic expansion; structure formation; ontology of cosmology

Table of Contents

