



Chayut Universe Wave Function

Paper A-12 : Cosmic Breathing and Cosmogenesis
without Singularity in the CUWF Framework

A Non-Singular, Collapse-Governed Cosmology of
Threshold Emergence, Boundary Dynamics, and Re-
Excitation

Title: Chayut Universe Wave Function (CUWF) Paper A-12 Cosmic Breathing and Cosmogenesis without Singularity in the CUWF Framework : A Non-Singular, Collapse-Governed Cosmology of Threshold Emergence, Boundary Dynamics, and Re-Excitation

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Abstract

This paper develops a cosmological framework in which the universe is understood not as the product of a singular beginning, but as a structurally recurrent wave-state process governed by accessibility, coherence, collapse, and re-excitation within the Chayut Universe Wave Function (CUWF) framework. The central proposal is that cosmogenesis should be reinterpreted as a threshold transition from the Fundamental Wave Background into a record-capable active-wave regime, rather than as creation from a geometric singularity. Within this view, time and geometry are not primitive containers of reality, but emergent descriptors that arise together with stable structure and persistent recordability. Cosmic expansion is re-read primarily as degrees-of-freedom opening and relational differentiation, while collapse is treated as a reintegrative state transition of coherence, identity, and recordability rather than as obligatory metric contraction. The paper introduces the Cosmic Breathing cycle as a global solution mode of CUWF: expansion and differentiation, coherence saturation, approach to near-stillness, reintegrative collapse, pre-geometry boundary, and re-excitation. It further argues that permanent stillness is structurally inaccessible at the macro-cosmic level because entropy

cannot be globally exported, the Fundamental Wave Background retains structured non-zero noise, and latent configurational accessibility is never fully extinguished. The recurring 3–6–9 pattern is interpreted not as numerology, but as a coherence architecture marking minimal compatibility, extended stability, and compatibility completion within a fully coupled wave field. Horizons are redefined as state boundaries of coherent accessibility rather than spatial walls, and the traditional Before-Big-Bang problem is dissolved by showing that temporal language is misapplied prior to the co-emergence of structure, recordability, and ordering. The result is a non-singular, irreversible, structurally recurrent cosmology in which the universe does not originate once and for all nor terminate in final exhaustion, but breathes through recurrent regimes of emergence, saturation, collapse, and renewed beginning.

Keywords

CUWF; Cosmic Breathing; Cosmogenesis; Non-Singular Cosmology; Fundamental Wave Background; Degrees of Freedom; Collapse; Re-Excitation; Pre-Geometry; Horizon Emergence; Coherence; Entropy; 3–6–9 Structure

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