Section 2 - Core Foundations of the Chayut Universe Wave Function (CUWF)

The Chayut Universe Wave Function (CUWF) begins from a single unifying premise: the universe is fundamentally a continuous wave system defined on one underlying substrate. Within this framework, physical reality is not built from independently existing particles and fields, but from the oscillation, collapse, and entropic structuring of a universal wave on a common background.

1. The Fundamental Wave Basin (FWB): The Single Substrate of the Universe

In CUWF, all physical manifestations - energy, particles, fields, and observable phenomena - are expressions of wave behavior on the Fundamental Wave Basin (FWB). FWB is not itself a particle, a form of energy, or a standard-model quantum field. Rather, it is the underlying mathematical substrate that provides continuity, coherence, and the basis for all collapse processes. It is the common manifold on which all waves exist, interact, and evolve.

2. Particles as Collapse Nodes

CUWF does not treat particles as enduring objects traveling through space. Instead, a particle is understood as a collapse node: a localized and temporarily stable configuration of the wave generated under specific geometry-entropy conditions. Such nodes occur only at entropic minima, can disappear and reform, and possess no independent continuity of their own. Continuity belongs to the underlying wave that generates them. What is conventionally interpreted as particle motion is therefore reinterpreted as the successive appearance of new collapse nodes rather than the transport of a persistent object.

3. Physical Phenomena as Wave Geometry and Entropy

CUWF seeks to unify quantum mechanics and relativity through a single structural principle:

One wave + geometric structure + entropic gradient -> physical phenomena

Within this view, gravity is interpreted as geometric drift of the wave on the FWB, time as an entropic relation between node states, and quantum behavior as a consequence of node stability and instability under varying structural conditions. The apparent diversity of physical laws is therefore understood as the differentiated response of one continuous wave system to geometry and entropy.

4. Continuity in the Wave, Discreteness in the Node

A central distinction in CUWF is that continuity exists in the wave, whereas discreteness belongs to the node. Waves remain fully continuous, while collapse nodes are localized and discontinuous. This distinction provides the conceptual basis for addressing phenomena such as quantum jumps, decoherence, entanglement, tunneling, and time dilation without requiring discontinuity in the underlying substrate.

5. All Physical Phenomena as Wave Responses

Within CUWF, phenomena such as quantum tunneling, entanglement, gravity, time, and black holes are interpreted as different expressions of one general principle: the response of a continuous wave to geometric and entropic conditions while preserving continuity on the FWB.

Closing Note

For a fuller account of the CUWF framework, readers may refer to Paper A: The Theory and Paper A-2, which develop the broader mathematical and physical foundations from which the A-series modules proceed.