## Reflexive Topological Dynamics

An Integrative Invariant Theory of Unity and Quantification in Fundamental Physics

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## Abstract

The initial formulation of a theoretical integration of quantum mechanics and general relativity in a manner that presents the emergence of separation, distinction and particularization as concurrent with the emergence of space and time. Within this framework, gravity is understood as an expression of unity and the nature of observed quantum entanglement. Interaction between point-like and wave-like phenomena is understood as a unitary force with three-fold qualities as observed electromagnetic, strong and weak interactions. The observable universe of matter, fermionic and bosonic, is presented as the 3D brane surface behavior of a 4D bulk metaverse. Conjectured dark matter is presented to be explained as black holes of both a primordial and cyclical nature. Conjectured dark energy is presented as being a superfluid vacuum that is the 4D bulk, the metaverse, and interacting with multiple 3D universe branes, thereby providing an explanation of expansion and the acceleration of expansion within the observable universe. The observable universe and others like it, separated by the bulk and unobservable due to the confinement of photonic energy within the space of each universe, have the consistency of a bubbling froth on the surface of a superfluidic and also hypercrystalline sea, and topologies of each universe are fundamentally toroidal and may vary over their duration of manifest existence by having a variety of knots, twists, and loops. Universes form in a manner analogous to condensation within the bulk and the froth expands and changes in its topology, and eventually all the matter is absorbed into black holes and thence returning into the bulk. Some black holes remain and may be considered as primordial within subsequent iterations of universes that emergeas surface phenomena within the bulk metaverse. Within universes there are a vast number of wormhole-like formations that connect different regions and these contacts are changing over time. Certain of these wormholes are of a consistency that may allow for transit of stable 3D objects from one region of a universe to another with an apparent reduction in the time interval for such transits.

"To exist is to become form, structure, organization, complexity, and this is Life. To live is to become conscious of becoming-being-living."