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The Inflaton in Quantum Impedance Networks of Higgs Mode Dynamics

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In geometric representation, the vacuum wavefunction is comprised of one scalar, three vectors, three bivectors, and one trivector (1,3,3,1). Vacuum wavefunction is the same at all scales, from Planck length to boundary of the observable universe. Various combinations of the four fundamental constants (electric charge, Planck's angular momentum quantum, speed of light, and magnetic permeability of space) that define the dimensionless electromagnetic coupling constant α permit assigning geometrically and topologically appropriate electric and magnetic flux quanta to each of the eight wavefunction components. Physics at different energies arises from the scale to which the flux quanta are confined, from the scale-dependent electromagnetic field energy 1 . In such a model the Higgs mode exists not only at the scale of LHC physics, but also at the Planck particle scale. Higgs mode is inside Planck length event horizon, such that in the earliest instants of the big bang it drives event horizon to scale of the universe boundary.

1 Naturalness begets Naturalness: An Emergent Definition

Session

Beyond the Standard Model

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