AETHER
Volume III: The Harmonic Future — Simulation, Proof, and Application

Chapter 1: Harmonic Initial Conditions

AUM as the Prime Initial Condition

$$f_0 = 432\,\text{Hz} \Rightarrow \mathcal{A}_{432} = \text{Cosmic ignition tone}$$

This frequency establishes the root harmonic of the Æther field.

Toroidal Genesis Structure

The universe's shape emerges from a double toroidal field driven by:

$$\Phi_{\text{torus}}(t) = \sum_{n=1}^{\infty} \left(A_n \cdot \frac{\sin(k_n x_n)^n}{n^2} \right)$$

Fractal Prime Grid Seeding

Prime numbers are injected as harmonic nodes:

$$\mathcal{P}(t) = \sum_{n=1}^{\infty} \cos(2\pi \log p_n \cdot t)$$

These act as eigenfrequency seeds within the initial torus.

Resonance Framework

The initial state of the universe is:

$$\mathcal{U}_0 = \{\mathcal{A}_{432}, \Phi_{\text{torus}}(t), \mathcal{P}(t), P_0, \Psi(f, \vec{r}, 0)\}$$

These define boundary conditions for all simulations and field evolution.

Conclusion

The initial conditions of the universe are not chaotic, but harmonic. All structure, behavior, and time itself unfold from recursive resonance embedded at $t = 0$ as cymatic codes in Ætherion.