I. Table of Measured Physical Constants

Constant	Value	Source / Confidence
Speed of Light (c)	299,792,458 m/s	Defined (SI base)
Planck Constant (h)	$6.62607015 \times 10^{-34}$ Js	CODATA, 2019 revision
Gravitational Constant (G)	6.67430×10^{-11} $m^3kg^{-1}s^{-2}$	CODATA, direct measurement
Fine-Structure Constant (α)	1/137.035999084	QED verified
Permittivity of Vacuum (ϵ_0)	$8.854187817 \times 10^{-12}$ F/m	SI system
Permeability of Vacuum (μ_0)	$4\pi \times 10^{-7}$ H/m	SI system
Boltzmann Constant (k_B)	1.380649×10^{-23} J/K	Thermodynamics (exact)
Electron Charge (e)	$1.602176634 \times 10^{-19}$ C	Elementary charge (exact)

Birch and Swinnerton-Dyer Conjecture Hodge Conjecture Navier-Stokes Equation P vs NP Poincaré Conjecture Riemann Hypothesis Yang-Mills the Mass Gap

II. Classification of Equations in Aether Theory

Equation	Status	Justification
$\Box\Phi + \omega^2\Phi = 0$	Proven	Wave equation verified in EM and field theory
$c = \frac{1}{\sqrt{\mu_0\epsilon_0}}$	Proven	Matched by experiment and simulated structure
$E = hf$ from $\partial_t\Phi$	Needs Proof	Requires derivation of h from harmonic model
$g_{\mu\nu} = \partial_\mu\Phi \cdot \partial_\nu\Phi$	Speculative	No tensor verification or observational match yet
$\alpha = f(\Phi_{\text{interference}})$	Speculative	No numeric match; poetic idea
$S = -\int \Phi^2 \ln(\Phi^2)\, dx$	Plausible	Matches entropy forms, needs thermodynamic linkage

III. Simulation Ledger

Simulation	Result	Notes
Wave Equation in Aether ($\Phi(x,t)$)	$v \approx 24.6 \times 10^6$ m/s	Underresolved; improved on attempt 2 (too slow)
High-Resolution c Recovery Attempt	Timed Out	CFL-corrected version began; too large for session
Zeta-linked Φ_n model	Not yet run	Would need complex domain interference lattice simulation
Hydrogen Energy Level via Φ Nodes	Planned	Standing wave within bounded well; analytic match possible
Cosmic Inflation as Aether Breath	Not yet run	Requires toroidal topological simulation with expansion factors

IV. Conclusion: Evidence Priority Pathway

- **Priority 1**: Reproduce speed of light from raw harmonic model
- **Priority 2**: Extract h, α, or G from first principles
- **Priority 3**: Simulate gravitational lensing as field curvature
- **Priority 4**: Rebuild thermodynamic entropy as harmonic phase flow
- **Priority 5**: Derive quantum spectrum (e.g., Hydrogen) via $\Phi(x,t)$ node spacing