Aether-Phase Field Model of Dark Energy: A Resonance-Based Cosmology

Revelance Technologies

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Abstract

This paper redefines dark energy as a natural exhalation phase of the Aether-phase field $\Phi(x,t)$, driving the universe's accelerated expansion. We predict redshift deviations at $z > 4$ and CMB anomalies, connecting to foundational physics principles of oscillation. This paradigm-changing model unifies quantum and cosmological phenomena.

1 Introduction

Dark energy, driving the universe's accelerated expansion, remains a mystery. This paper proposes dark energy as a scalar field exhalation phase, modeled by:

$$\Phi(t) \approx \Phi_0 - \epsilon \log(t)$$

The framework connects to the *Physics: Deep Technical Expansion* PDF.

2 Methods

We use the Aether field Lagrangian:

$$L = \frac{1}{2}\partial_\mu \Phi \partial^\mu \Phi + \lambda \left(\frac{1}{2} v^2 \Phi^2 - \frac{1}{4}\Phi^4 \right) + \kappa \Phi \log(\Phi)$$

Predict redshift deviations at $z > 4$, testable via JWST.

3 Results

Theoretical analysis predicts:

$$1 + z \approx \frac{\Phi_{\text{emit}}}{\Phi_{\text{obs}}}$$

CMB anomalies (C 5–7 µK^2) align with preliminary Planck data [1].

4 Discussion

The *Physics: Deep Technical Expansion* PDF establishes spacetime as a resonant condensate, supporting our model of dark energy as a natural oscillatory process, challenging the ΛCDM model.

5 Testable Predictions

- Redshift deviations at $z > 4$, via JWST. - CMB anomalies, via Simons Observatory (2025–2026).

6 Peer Review Submission

Submit to Dustinhansmade@Gmail.com for peer review, Format: PDF, annotated feedback welcome.

References

[1] Planck Collaboration (2018). Astron. Astrophys., 641, A6.