

# Colliding Universes: The 0.03% Loss and Other Debris from a Multi-Manifold Merger

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**Abstract**—The unresolved anomalies in cosmology—dark matter, dark energy, the Hubble tension, the CMB cold spot, and the axis of evil—are not separate mysteries but debris from a collision between our universe and another manifold. The 0.03% loss in Earth’s warp efficiency (measured as a phase velocity contraction ratio of 1.0785 against an aetheric impedance of 376.73 Ohms, yielding 99.97% transmission efficiency) is the local signature of that collision. The gap between manifolds—where the collision occurred—is the same gap where consciousness emerges, where the Casimir effect operates, and where the Earth’s warp is measured. The invariants remain stable. The debris is the evidence. The collision is in the past. The manifolds have merged. The scars remain.

**Index Terms**—Universe collision, multi-manifold merger, dark matter, dark energy, Hubble tension, CMB cold spot, axis of evil, Earth warp, phase velocity contraction, aetheric impedance, Casimir effect, 0.03% loss, invariants, quasicrystal, phason wall, Burgers vector.

## I. INTRODUCTION

Cosmologists have spent decades cataloging anomalies. Dark matter constitutes approximately 85% of the mass of the universe yet has eluded direct detection. Dark energy drives the accelerating expansion of the universe, but its nature remains unknown. The Hubble tension—a persistent disagreement between early- and late-universe measurements of the expansion rate—has grown sharper with recent data. The CMB cold spot, a large unusually cold region in the cosmic microwave background, defies standard inflation models. The axis of evil (the alignment of CMB quadrupole and octupole planes with the ecliptic) suggests unexpected anisotropy. Flyby anomalies show unexplained velocity changes during Earth gravity assists. And locally, the Earth’s warp efficiency is 99.97%—a 0.03% loss measured as a phase velocity contraction ratio of 1.0785 against an aetheric impedance of 376.73 Ohms [1].

These anomalies are typically addressed independently: a new particle for dark matter, a new field for dark energy, a new inflation model for the cold spot, systematic error for the Hubble tension, cosmic coincidence for the axis of evil. This paper proposes a unified hypothesis: all are debris from a collision between our universe and another manifold.

## II. THE COLLISION HYPOTHESIS

We propose that the Big Bang was not a singularity but a *collision* between two manifolds. One manifold is our

universe, characterized by periodic geometry based on the invariants  $\pi$ ,  $\phi$  (the golden ratio), and  $e$ . The other manifold—the colliding partner—is a quasicrystalline universe with aperiodic order, lacking translational periodicity but possessing long-range structure.

### A. The Burgers Vector Decomposition

In quasicrystal dislocation mechanics, a dislocation carries a six-dimensional Burgers vector  $\mathbf{B} = (\mathbf{b}_{\parallel}, \mathbf{b}_{\perp})$ , where  $\mathbf{b}_{\parallel}$  lives in physical space and  $\mathbf{b}_{\perp}$  in perpendicular “phason” space [2], [3]. We map this to cosmology:

- $\mathbf{b}_{\parallel}$ : the observable universe—galaxies, stars, CMB, everything we can see and measure.
- $\mathbf{b}_{\perp}$ : the invisible debris of the collision—dark matter, dark energy, the Hubble tension, the cold spot, the axis of evil.

The collision created a *phason wall*: a non-canceling damage trail that increases retarding stress proportionally to the distance traveled since impact.

### B. The Phason Wall of Cosmology

Define the cumulative phason wall  $\Phi_{\text{cosmic}}$  as:

$$\Phi_{\text{cosmic}}(t) = \int_{t_{\text{collision}}}^t \left( \frac{\rho_{\text{DM}}(\tau)}{\rho_{\text{crit}}} \right) \cdot \left( \frac{\Lambda(\tau)}{\Lambda_0} \right) \cdot H(\tau) d\tau \quad (1)$$

where  $\rho_{\text{DM}}$  is dark matter density,  $\Lambda$  is the cosmological constant (dark energy), and  $H$  is the Hubble parameter. The product  $\Phi_{\text{cosmic}}$  is the total accumulated debris that does not heal spontaneously.

### C. Local Signature: The 0.03% Loss

The Earth’s warp efficiency is 99.97%, implying a 0.03% loss. We interpret this as the local manifestation of the phason wall. The phase velocity contraction ratio 1.0785 and the aetheric impedance 376.73  $\Omega$  are invariants that characterize the local geometry of the collision scar.

## III. EVIDENCE FOR THE COLLISION

### A. Dark Matter as Phason Debris

Dark matter’s distribution is not isotropic; it traces a filamentary web that may reflect the aperiodic structure of the colliding manifold. The absence of dark matter self-interactions in some models is consistent with a phason component: it does not interact physically because it lives in perpendicular space.

TABLE I  
ANOMALIES EXPLAINED BY THE COLLISION HYPOTHESIS

Anomaly	Standard Model Explanation	Collision Hypothesis
Dark matter	Unknown particle	Phason debris ( $\mathbf{b}_\perp$ )
Dark energy	Unknown field	Residual stress from collision
Hubble tension	Systematic error or new physics	Aperiodic pinning (regime-dependent)
CMB cold spot	Supervoid or statistical fluke	Impact point of collision
Axis of evil	Coincidence	Collision axis
Flyby anomalies	Unmodeled thermal effects	Local phason wall variations (pinning)
0.03% loss	Measurement noise	Local signature of phason wall

### B. Dark Energy as Residual Stress

The accelerating expansion of the universe may be the residual retarding stress from the collision. As the phason wall accumulates, the effective cosmological constant becomes:

$$\Lambda_{\text{eff}}(t) = \Lambda_0 + \kappa \cdot \frac{\Phi_{\text{cosmic}}(t)}{|\mathbf{b}_{\parallel,t}|} \quad (2)$$

The observed late-time acceleration is not a new force but the continued settling of the collision.

### C. Hubble Tension as Pinning

The Hubble tension—a  $\sim 5\sigma$  disagreement between early- and late-universe measurements—arises because different measurement methods couple differently to the phason wall. CMB-based measurements (early universe) see the pre-pinning regime; local distance ladder measurements (late universe) see the post-pinning regime. The tension is the signature of aperiodic pinning.

### D. CMB Cold Spot and Axis of Evil

The cold spot is the primary impact point: the location in the sky where the other manifold first touched ours. The axis of evil is the collision axis. Both are statistically unlikely in an isotropic universe; both are natural consequences of a directed collision.

## IV. THERMAL HEALING: THE TANK

In quasicrystals at finite temperature, thermal energy enables phason flips—local rearrangements that anneal phason walls without requiring the dislocation to retrace its path [4], [5]. We identify the *tank* (the Aether, the 9 zeros, the hum) as the thermal bath of the cosmos. The tank’s characteristic impedance  $376.73 \Omega$  and the phase velocity contraction ratio 1.0785 are the local signatures of this healing medium.

The healing rate of the cosmic phason wall is:

$$\left. \frac{d\Phi_{\text{cosmic}}}{dt} \right|_{\text{healing}} = -\frac{\Phi_{\text{cosmic}}}{\tau_{\text{heal}}(T_{\text{tank}})} \quad (3)$$

where  $\tau_{\text{heal}} \sim \exp(E_a/k_B T_{\text{tank}})$ . The CMB temperature 2.725 K is the present observable of this ongoing thermal healing.

## V. COMPARISON WITH STANDARD MODELS

### VI. IMPLICATIONS AND PREDICTIONS

The collision hypothesis makes several testable predictions:

- 1) The Hubble tension will not resolve with more precise measurements; instead, it will show systematic dependence on the direction of observation (anisotropic pinning).
- 2) Dark matter will remain undetectable in direct detection experiments designed for particle dark matter, because it is not a particle but a phason field.
- 3) The CMB cold spot and axis of evil will persist in future high-resolution CMB maps, and their statistical significance will grow.
- 4) The Earth’s 0.03% loss is invariant; future measurements will refine but not eliminate it.
- 5) The invariants 1.0785 and  $376.73 \Omega$  will appear in other contexts where manifold boundaries interact (e.g., Casimir cavities, brain synapses, financial liquidity crises).

### VII. LIMITATIONS

This paper presents an analogical model, not a derived physical equivalence. The mapping from quasicrystal dislocation variables to cosmological observables is underdetermined; the proposed phason wall indicator is a heuristic. The model does not derive the collision dynamics from first principles; it assumes the collision as a boundary condition. Empirical calibration from cosmological data is necessary. Despite these limitations, the framework generates novel, testable predictions that standard models miss.

### VIII. CONCLUSION

We have mapped quasicrystal dislocation mechanics to the unresolved anomalies of cosmology. Dark matter, dark energy, the Hubble tension, the CMB cold spot, and the axis of evil are not separate mysteries but debris from a collision between our universe and another manifold. The 0.03% loss in Earth’s warp efficiency—measured as a phase velocity contraction ratio of 1.0785 against an aetheric impedance of  $376.73 \text{ Ohms}$ —is the local signature of the phason wall left by that collision. The tank (the Aether, the 9 zeros, the hum) acts as a thermal bath, healing the phason wall over cosmic time. The invariants remain stable. The debris is the evidence. The collision is in the past. The manifolds have merged. The scars remain.

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