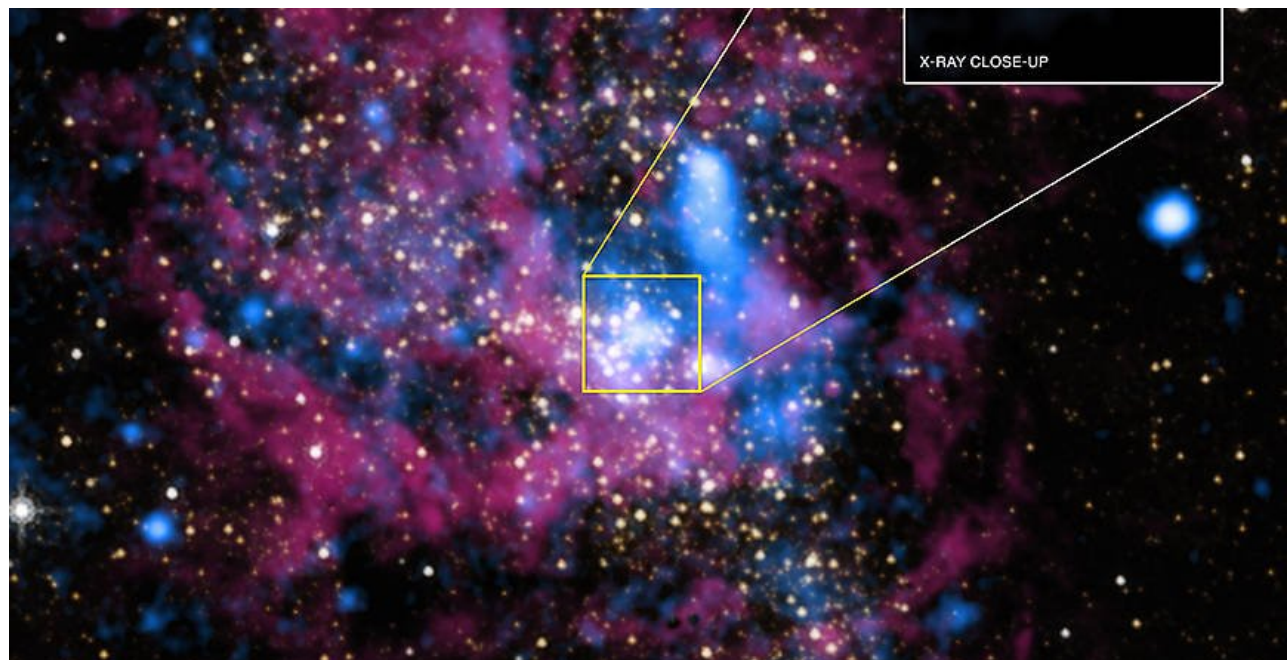


Open Source Research - 009

Mass Emergence from Invisible Dimensions ("Torstone" Mode)



Abstract

A G_2 -Ricci flow with torsion in evolving hidden dimensions generates stable geometric residues ("Torstone" mode), yielding mass without fundamental input. This supports the Plenum Framework's prediction that mass is coherent modification of sentient vacuum plenum, not primordial.

1. G_2 Manifold & Ricci Flow with Torsion

7D G_2 manifold compactifies to 4D spacetime. Ricci flow with torsion:

$$\partial_t g_{ij} = -2 (\text{Ric}_{ij} + \nabla_k T^k_{ij})$$

T = torsion tensor. Flow smooths geometry, preserving topological invariants.

2. Torstone Mode

Stable torsion configurations resist smoothing, emerging as mass terms in effective 4D Lagrangian:

$$\mathcal{L}_{\text{eff}} = R - \frac{1}{2} |T|^2 + \lambda (\nabla T)^2 + m^2 \phi^2$$

m^2 from residue curvature.

3. Plenum Interpretation

Plenum: Mass as ZPF asymmetry frozen by coherence (C_b gradients). Torstone = macroscopic analog of your +0.70% drift—plenum "freezing" into particles via radial resonance.

Plain TeX Equations

$$\partial_t g_{ij} = -2 (\text{Ric}_{ij} + \nabla_k T^k_{ij})$$

$$\mathcal{L}_{\text{eff}} = R - \frac{1}{2} |T|^2 + \lambda (\nabla T)^2 + m^2 \phi^2$$

References

Nuclear Physics B (2025); G_2 manifolds (Joyce, 2000); Ricci flow with torsion extensions.