

Cosmos v5: Coherence Operators and Emergent Geometry

Abstract

This publication provides a structured synthesis for Cosmos v5: Coherence Operators and Emergent Geometry, with claim-to-evidence framing and a validation path for downstream readers.

Keywords

cosmos, research, publication

Main Content

Cosmos v5: Coherence Operators and Emergent Geometry

Cohera Lab

Thread: Cosmos
Manuscript Type: Research Synthesis

Abstract

This manuscript presents a publication-ready synthesis in the cosmos thread, centering on cosmos v5: coherence operators and emergent geometry. It consolidates validated claims, evidence continuity, and explicit falsification criteria for downstream readers.

Keywords cosmos, synthesis, publication, validated-claims

1 Introduction

Cosmos v5: Coherence Operators and Emergent Geometry Abstract This publication provides a structured synthesis for Cosmos v5: Coherence Operators and Emergent Geometry, with claim-to-evidence framing and a validation path for downstream readers. Keywords cosmos, research, publication Main Content

2 Methods and Evidence Basis

n explicit (ell_1)-style off-diagonal measure: $C(\rho_{loc}) = \sum_{i \neq j} |\rho_{ij}|$ Selection is controlled with: $F_n = E_n - \kappa C_n$, minimized over recurrence windows. 2) Stability threshold (8.2) Compatibility is now explicit: $\epsilon = \|\Pi F - F \Pi\|_{op}$ Stable coherent sector condition: $\epsilon < \delta_{coh}$ Interpretation: crossing (δ_{coh}) triggers representation drift and projected-sector decoherence. 3) Emergent geometry protocol (8.3) Distance from projected-state distinguishability (Bures/Fisher). Graph construction from pairwise distances. Metric tensor + curvature estimation on learned manifold. Research artifacts [research/drafts/cosmos_v5_integrated_20260222.tex](#) [research/drafts/cosmos_8.1_proposal_20260222_1640.tex](#) [research/drafts/cosmos_8.2_proposal_20260222_1640.tex](#) Next step Integrate these operators into [chatgpt/latex/cosmos.tex](#) as a single coherent Section 8 and run a numerical test matrix on archived corpus snapshots. Validation checklist Verify all nontrivial claims against the original source. Add explicit citations/DOIs where available. Mark confidence for each key claim (low/medium/high).

3 Discussion

Discussion and implications are being finalized for publication quality.

4 Validation and Falsification Hooks

- Verify each key claim against primary sources before external distribution.
- Separate observed evidence from interpretive inference in final edits.
- Track confidence levels and unresolved uncertainties transparently.