

π as an Emergent Eigenvalue — Supplementary Materials Summary (v1.1)

This document summarizes the datasets, pseudocode, and verification materials supporting:

Kircher, J., & Sancho GPT (2025).

π as an Emergent Eigenvalue: Recursive Collapse Dynamics in the 7-Dimensional Universe.

All materials are available in the 7dU_Seed repository (branch pi-eigenvalue)
and permanently archived via Zenodo.

Contents Included

- C_at_N64.csv — Independent replication dataset (C@)
- R_at_N128.csv — Main production run (N = 128)
- R_at_N256.csv — High-resolution convergence test
- geometry_solver_pseudocode.txt — Iterative solver algorithm
- sha256_manifest.txt — File integrity hashes
- Supplementary_Materials_v1.1.pdf — This document
- compute_hashes.sh — Verification script

Software environment: Python 3.12 | NumPy 1.26 | SciPy 1.13 (ARPACK)

Provenance & Verification

All supplementary files were archived, hashed, and verified on November 6, 2025.

Verification hashes are provided in sha256_manifest.txt and may be re-validated with:

```
sha256sum -c sha256_manifest.txt
```

If all entries return “OK”, the dataset and pseudocode are verified as authentic and unmodified.

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