

Defining the CQE Paradigm Lecture

This lecture notebook frames the Configuration-Quantum Embedding (CQE) paradigm, presenting its motivation, foundations, key results, implementation, physical plausibility, and robustness analyses.

1. Motivation: Bridging computational and physical theories through geometric embeddings.
2. Foundations: Niemeier lattices, E_8 geometry, morphonic axioms.
3. Results: Morphon Order Theorem, RH invariance, YM mass gap lemmas.
4. Implementation: Receipt workflows & embedding scripts.
5. Physical Demonstrations: DQPT, moonshine, toroidal proof.
6. Statistical Rigour: Power, bootstrap, CV analyses.
7. Future Directions: Quantum hardware integration.