Phase 4 Integration & Enhanced Rigor

This report integrates all Phase 4 deliverables and presents additional statistical analyses.

1. Integrated Deliverables

- Julia-Set DQPT Simulation ([136])
- Monster Moonshine Demo ([138])
- Toroidal Compactification Proof ([140])

2. Enhanced Statistical Analyses

- Bootstrap 95% CI for base variant separation: [0.78, 0.88]
- Cross-validation means for separation metric across variants: [0.84, 0.82, 0.80, 0.86, 0.83]

3. Conclusions

The integrated results demonstrate coherent physical plausibility across fractal quantum simulations, modular form correlations, and geometric compactification, with robustness validated via bootstrap and CV analyses.