

An Introduction to Beckwith's 2026 Book "Pathways to Quantum Cosmology"

In the course of human history there are perhaps only a handful of revolutionary advances in theoretical physics in any given century. In the 20th Century Einstein's Field Equations led to the field of General Relativity; in Quantum Mechanics one might consider Schrodinger's Equation and Heisenberg's Uncertainty Principle in the same category.

Presently, well into the 21st Century, we may now consider the present volume in the same rarified company. For in addition to unifying the above concepts, it also replaces the Big Bang with the Big Bounce, accounts for the evolution of the Cosmological Constant, and for the fine tuning of the other fundamental physical constants.

This comprehensive theoretical work explores Torsion Cosmology as a framework to solve the challenging Cosmological Constant problem, arguing that the energy dissipation is due to the dynamics of relic black holes and the vanishing of a torsion spin term after the Big Bounce. The analysis also investigates the origins of Gravitational Waves (GW), treating the graviton as a massive particle, and suggests a groundbreaking method for verifying these values by using Tokamak plasmas to simulate or duplicate GW values in a laboratory setting.

The theory contained in this volume delves into quantum foundations, proposing that quantum mechanics may be embedded within a 5-dimensional deterministic structure near Planck time, and concludes by generalizing Penrose's Cyclic Conformal Cosmology (CCC) into a Multiverse model that utilizes a wormhole bridge and ergodic mixing to transfer energy between universes.

In synthesis, this volume presents a cohesive theoretical framework that uses black hole physics, Torsion, and modified quantum principles to construct a detailed, testable model of quantum cosmology, even suggesting laboratory simulation methods to verify its predictions. Congratulations are due to this author, for what must represent a life's work well spent.

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