

Abstract Submitted
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Quantum Superposition, Collapse, and the Default Specification

Principle ARMIN NIKKHAH SHIRAZI, Department of Physics, University of Michigan — Quantum Superposition and collapse lie at the heart of the difficulty in understanding what quantum mechanics is exactly telling us about reality. We present here a principle which permits one to formulate a simple and general mathematical model that abstracts these features out of quantum theory. A precise formulation of this principle in terms of a set-theoretic axiom added to standard set theory may directly connect the foundations of physics to the foundations of mathematics.

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