

The Quantum Measurement Problem: State of Play

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Abstract

This is a preliminary version of an article to appear in the forthcoming Ashgate Companion to the New Philosophy of Physics.In it, I aim to review, in a way accessible to foundationally interested physicists as well as physics-informed philosophers, just where we have got to in the quest for a solution to the measurement problem. I don't advocate any particular approach to the measurement problem (not here, at any rate!) but I do focus on the importance of decoherence theory to modern attempts to solve the measurement problem, and I am fairly sharply critical of some aspects of the "traditional" formulation of the problem.

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