

Quantum Probability from Subjective Likelihood: improving on Deutsch's proof of the probability rule

Wallace, David (2005) Quantum Probability from Subjective Likelihood: improving on Deutsch's proof of the probability rule.

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Abstract

I present a proof of the quantum probability rule from decision-theoretic assumptions, in the context of the Everett interpretation. The basic ideas behind the proof are those presented in Deutsch's recent proof of the probability rule, but the proof is simpler and proceeds from weaker decision-theoretic assumptions. This makes it easier to discuss the conceptual ideas involved in the proof, and to show that they are defensible.

Keywords: Everett, Probability, Decision Theory

Subjects: [General Issues: Decision Theory](#)
[Specific Sciences: Physics: Quantum Mechanics](#)

ID Code: 2302

Deposited By: [Wallace, David](#)

Deposited On: 15 May 2005

Additional Information: This is a revised version of my 2003 paper. It has a substantially improved proof of the Equivalence principle as well as a few more minor changes.

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