

## Workshop Quantum Foundations. The physics of "what happens" and the measurement problem

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# Many worlds quantum mechanics and the measurement problem

*Wednesday, 24 May 2017 16:10 (40 minutes)*

In this talk, I will discuss the attempt(s) to solve the measurement problem by making quantum mechanics a 'many-world theory'. Starting from the naïve idea that measurement events literally cause the universe to branch, I will then move back to the original 'relative-state' proposal made by Everett, and assess to what extent it really qualifies as a many-world formulation of quantum mechanics. In the process, I will consider, albeit briefly, some important issues concerning probabilities, empirical adequacy, decoherence and the philosophical status of the theory (or theories) in question.

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