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How to solve the quantum measurement problem

Starting from Einstein's objections to Bohr, the talk recalls the famous measurement problem:

(1) The quantum wave function provides the complete information about the system.

(2) The wave function develops according to a linear and deterministic equation.

(3) Measurements have outcomes. In particular, measurement situations with identical initial wave functions can have different outcomes (whose probabilities are given by Born's rule).

The conjunction of any two of these propositions implies that the third one is false. We therefore have exactly three possibilities to solve the measurement problem:

(not 1) Additional variables.

(not 2) Other dynamics.

(not 3) No measurement outcomes.

I'll then argue that these possibilities reduce to two ones, namely EITHER (not 1) and (not 2) OR (not 3). Finally, I'll show how (not 1) and (not 2) yields a clear quantum theory with a convincing ontology in which, furthermore, quantum non-locality is not paradoxical.