

Constructing deterministic models for quantum mechanical systems

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In principle one can construct deterministic models that allow for a description in terms of superimposed quantum states in Hilbert space. At first sight, this does seem to clash with locality, and the question is whether one may suspect that more complex structures exist that are more realistic. As is well-known, Bell's theorem suggests that there must be severe limitations for such constructions, but we point out that a conservation law can resolve such issues: the "conservation of ontology".