

Abstract Submitted  
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**Noncontextuality and the Kochen-Specker Theorem** BRIAN LA COUR, University of Texas at Austin — The question of noncontextuality in a simple, two-qubit system is considered. It is shown that quantum theory is consistent with a noncontextual hidden variable interpretation, contrary to the conclusions of the Kochen-Specker theorem. The key to the proof is the recognition of a subtle but fundamentally important assumption regarding the dependence of the hidden variable probability distribution on the particular set of mutually commensurate observables chosen for measurement. Recent experiments to test noncontextuality will be discussed and their results reconciled with a hidden variable interpretation.

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