

Abstract Submitted
for the TSF17 Meeting of
The American Physical Society

Local Hidden-Variable Model for a Recent Experimental Test of Quantum Nonlocality and Local Contextuality¹ BRIAN LA COUR, The University of Texas at Austin — An experiment has recently been performed to demonstrate quantum nonlocality by establishing contextuality in one of a pair of photons encoding four qubits; however, low detection efficiencies and use of the fair-sampling hypothesis leave these results open to possible criticism due to the detection loophole. In this talk, a physically motivated local hidden-variable model is described as a possible mechanism for explaining the experimentally observed results. The model, though not intrinsically contextual, acquires this quality upon post-selection of coincident detections.

¹This work was supported by the Office of Naval Research under Grant Nos. N00014-14-1-0323 and N00014-17-1-2107.

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Date submitted: 20 Sep 2017

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