2001 Vol. 36 No. 4 pp. 395-398 DOI:

Nonlocality Proof for Two-Particle Systems in 3\otimes 3 Hilbert Space

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Abstract: For a two-particle system in 3\otimes 3 Hilbert space, we derive a new type of inequality for local hidden variable model. Using an entangled state, we give a realizable experiment whose joint probabilities violate the inequality.

PACS: 03.65.Bz Key words: nonlocality, 3\otimes 3 Hilbert space

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