2007 Vol. 47 No. 1 pp. 49-52 DOI:

Measuring-Basis Encrypted Quantum Key Distribution with Four-State Systems

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Abstract: A measuring-basis encrypted quantum key distribution scheme is proposed by using twelve nonorthogonal states in a four-state system and the measuring-basis encryption technique. In this scheme, two bits of classical information can be encoded on one four-state particle and the transmitted particles can be fully used.

PACS: 03.67.Dd, 03.67.Hk, 03.65.Ud, 03.65.Ta Key words: quantum key distribution, measuring-basis encryption, four-state system

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