

## Channel 's Concurrence and Quantum Teleportation

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Abstract: Concurrence can measure the entanglement property of a system. If the channel is a pure state, positive concurrence state can afford the good performance in the teleportation process. If the channel is a mixed state, positive concurrence state cannot assure the good performance in the teleportation. The conditions of the positive concurrence and the quantum teleportation in the Heisenberg spin ring is derived.

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Key words: concurrence, quantum teleportation, entanglement, mixed state, Heisenberg spin ring

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