

Multiparticle Generalization of Remote State Preparation

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Abstract: We present a scheme for preparing remotely a three-particle pure entangled state via entanglement swapping, and then we directly generalize it to the multiparticle case. It is shown that by using N pairs of bipartite EPR states as the quantum channel, remote preparation of some specially chosen N -particle pure entangled states can be achieved faithfully with an N -particle orthonormal basis measurement and only N bits of classical information.

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