

Abstract Submitted
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Quantum teleportation using circuit cavity-QED systems¹ JAE PARK, MIKA SILLANPAA, RAY SIMMONDS — We investigate the experimental prospects for a probabilistic quantum teleportation scheme. In particular, we consider a system composed of coupled superconducting Josephson-junction phase qubits and superconducting transmission line resonators. The relatively short lived phase qubits are used only to prepare states, mediate entanglement, and readout. The longer lived resonators play the traditional role of qubits, providing the entanglement channel and logical basis.

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