

Abstract Submitted
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Error-reducing sequence for capacitively coupled singlet-triplet qubits FERNANDO CALDERON-VARGAS, JASON KESTNER, Univ of Maryland-Balt County — Two-qubit gates can be implemented by capacitively coupling singlet-triplet qubits, which has been experimentally demonstrated to be capable of generating entangling operations. However, the fidelity of the entangling two-qubit gates is still far from optimum. In this light, we propose a two-qubit entangling echo sequence that reduces drastically the two-qubit decoherence due to the Overhauser field fluctuation and improves the fidelity of two-qubit gates under charge noise.

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