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## Quantum correlations in two coupled superconducting charge qubits

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### Abstract

Quantum correlations are considered analytically in a model that contains two coupled superconducting charge qubits sharing a large Josephson junction. Dynamical properties for the reduced two-qubit state are addressed in the quantum evolution when the coupling between the field and the qubits is either constant or time-dependent. In the latter case, adiabatic and nonergodic features are present for extremely low and fast evolutions, respectively. Finally, the case where the coupling drops to zero is also considered.

### Keywords

**Author Keywords:** Quantum correlation; nonlocality measure; quantum evolution  
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