

Abstract Submitted
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Parametric coupling and suppression of crosstalk between two superconducting transmon qubits GENGYAN ZHANG, ANDREW HOUCK, Princeton University — It is a challenge in circuit QED architecture to generate on-demand interaction between qubits without introducing unwanted crosstalk. We report on the design and implementation of a tunable coupler between two transmon qubits, whose coupling strength can be tuned to close to zero due to the interference effect. Two-qubit gates can be realized by parametrically modulating the coupler. Experimental results of tunable cross coupling and parametric modulation will be presented.

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