

Abstract Submitted
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Framework for Flux Qubit Design¹ FEI YAN, Research Laboratory of Electronics, Massachusetts Institute of Technology, ARCHANA KAMAL, University of Massachusetts Lowell, PHILIP KRANTZ, DANIEL CAMPBELL, Research Laboratory of Electronics, Massachusetts Institute of Technology, DAVID KIM, JONILYN YODER, Lincoln Laboratory, Massachusetts Institute of Technology, TERRY ORLANDO, SIMON GUSTAVSSON, Research Laboratory of Electronics, Massachusetts Institute of Technology, WILLIAM OLIVER, Lincoln Laboratory, Massachusetts Institute of Technology, ENGINEERING QUANTUM SYSTEMS TEAM — A qubit design for higher performance relies on the understanding of how various qubit properties are related to design parameters. We construct a framework for understanding the qubit design in the flux regime. We explore different parameter regimes, looking for features desirable for certain purpose in the context of quantum computing.

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Fei Yan
Massachusetts Inst of Tech-MIT

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