

Abstract Submitted
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1/f Noise in Josephson Junctions MAGDALENA CONSTANTIN,
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Irvine — A major obstacle to the realization of Josephson junction qubits is decoherence due to noise. Our goal is to understand the microscopic mechanisms which lead to the $1/f$ critical current noise spectrum at low temperatures. One possible source of critical current fluctuations is the presence of defects such as two level systems in the insulating junction barrier. We present a model of the critical current noise spectrum and compare it with recent experiments.

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