

Abstract Submitted
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Microwave response of vortices in superconducting Nb resonators

K. DODGE, B. L. T. PLOURDE, Syracuse University — Magnetic flux vortices driven by microwave currents are an important loss mechanism in superconducting resonators and qubits. Prior work has focused on the behavior of vortices trapped in aluminum thin films. Here we present measurements of vortices trapped in superconducting coplanar waveguide resonators fabricated from other superconducting thin films, including niobium. Field cooling of multiple resonators with different parameters is used to study the magnetic field and frequency dependence of the microwave vortex response.

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