

Abstract Submitted
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Squeezing microwave resonator via parametric interaction driven by a quantum dot UDSON C. MENDES, Institut quantique and Dpartment de Physique, Universit de Sherbrooke, Sherbrooke, Qubec, Canada, CHRISTOPHE MORA, Laboratoire Pierre Aigrain, cole normale suprieure, Paris, France — It has recently been demonstrated experimentally and theoretically that a DC- and AC-voltage biased tunnel junction produces squeezed microwave. In this linear conductor, squeezing is generated via dissipation rather than parametric interaction. In this talk, we will first establish that a quantum dot drives parametrically the microwave resonator that it is coupled to. Then, we will show how to achieve strong squeezing by engineering the tunnel coupling between the quantum dot and the metallic leads.

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