

Abstract Submitted  
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**Two-mode squeezed light in the microwave domain** MORITZ BUSINGER, PHILIP KRANTZ, DANIEL CAMPBELL, JEFFREY GROVER, ARCHANA KAMAL, FEI YAN, TERRY ORLANDO, SIMON GUSTAVSSON, WILLIAM OLIVER, Massachusetts Inst of Tech-MIT, DAVID HOVER, VLAD BOLKHOVSKY, JONILYN YODER, Lincoln Laboratory, CHRIS MACKLIN, KEVIN O'BRIEN, IRFAN SIDDIQI, University of California Berkeley — We present progress in measurements of two-mode squeezing at microwave frequencies using a Josephson traveling wave parametric amplifier (JTWPA). Using the parametric nature of this device, we are able to produce correlated photons separated by a frequency of 1.6 GHz. We further explore how this can be used for high fidelity readout in superconducting qubits and other high precision measurements.

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