MAR15-2014-020042

Abstract for an Invited Paper
for the MAR15 Meeting of
the American Physical Society

Quantum Measurement in Superconducting Circuits

KATER MURCH, Physics Department, Washington University, St. Louis

In recent years, there has been immense progress in the ability to control and measure superconducting circuits. These abilities have enabled several different experiments that address the fundamental physics of quantum measurement, ranging from the observation of non-classical weak values, to the generation of entanglement through measurement and the tracking of individual quantum trajectories. I will review recent progress in the field and discuss how these advances add to the foundations of quantum mechanics.