Abstract Submitted
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**Studies of spontaneous vortex formation during Bose-Einstein condensation.** TYLER NEELY, CHAD WEILER, College of Optical Sciences, University of Arizona, ASHTON BRADLEY, MATTHEW DAVIS, School of Physical Sciences, University of Queensland, BRIAN P. ANDERSON, College of Optical Sciences, University of Arizona — We experimentally observe the spontaneous creation of quantized vortices in Bose-Einstein condensates during the BEC phase transition. Numerical simulations based on the Stochastic Gross-Pitaevskii equation formalism show excellent quantitative agreement with experimental results. We will present results of ongoing experiments characterizing spontaneous vortex formation in BECs created in various trap geometries, including multiply connected and nearly two-dimensional potential wells.

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