Vortex formation during the creation of Bose-Einstein condensates

TYLER NEELY, CHAD WEILER, DAVID SCHERER, BRIAN ANDERSON, University of Arizona — We experimentally study the growth of Bose-Einstein condensates in harmonic trapping potential and potentials shaped by light. We find that vortices naturally form in the condensates during the evaporative cooling process with the probability influenced by the trap geometry. In all cases angular momentum in not deliberately added to the system. We will discuss past and on-going experimental results.