

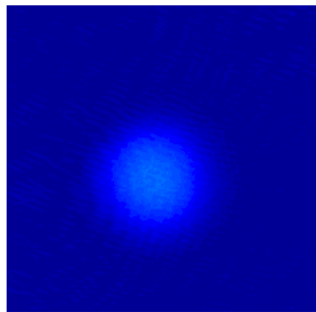
Bose-Einstein Condensation at the College of Optical Sciences, UA

First achieved on September 23, 2005

Research team: David Scherer, Chad Weiler, Tyler Neely, Brian Anderson (PI)

A cold ($1\ \mu\text{K}$)
thermal gas in a
magnetic trap

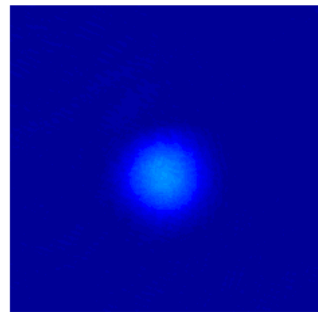
RF = 4.6 MHz



1 mm

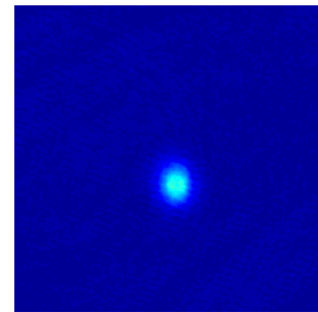
Just above the
BEC transition

RF = 4.3 MHz



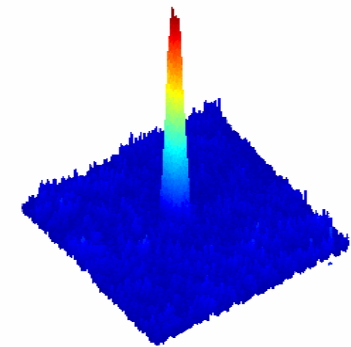
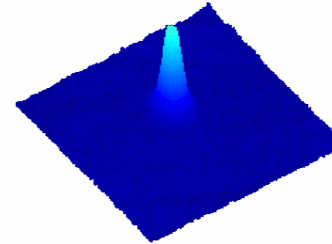
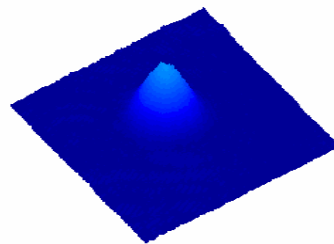
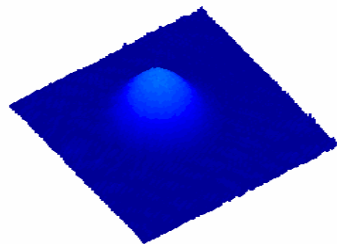
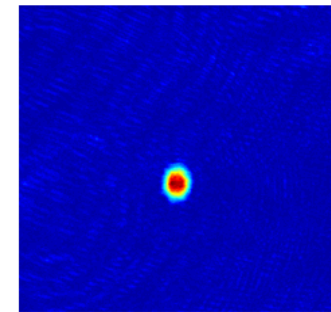
Just below the
transition temperature
(220 nK)

RF = 3.95 MHz



BEC!
 $\sim 10^5\ ^{87}\text{Rb}$ atoms
 $T \sim 30\ \text{nK}$

RF = 3.85 MHz



16 ms time-of flight (momentum distribution) absorption images of atom density.