

Overview

High-resolution spectroscopy of magnetically trapped Hydrogen is a powerful tool to analyze the Bose-Einstein phase transition, as well as the basic properties of cold atomic Hydrogen.

With our improved apparatus, we have begun to investigate the detailed dynamics of the BEC phase transition in real time.

We have also completed preliminary studies of the metastable $2S$ state decay. Our results suggest that the $2S$ lifetime is dependent on the density of the trapped sample.