

Abstract Submitted  
for the SES15 Meeting of  
The American Physical Society

**Design and Construction of Anti-Helmholtz Coils for Laser Cooling and Trapping Gd** UPENDRA ADHIKARI, CLAYTON SIMIEN, Univ of Alabama - Birmingham — Lanthanide elements are of interest because of their potential for investigating next generation optical clock transitions, novel non-S ground state ultracold collisions, and the physics of quantum degenerate dipolar gases. We present the design and construction of Anti-Helmholtz coils for the laser cooling and trapping of atomic Gadolinium (Gd). The design, construction, and performance of the apparatus will be presented.

Upendra Adhikari  
Univ of Alabama - Birmingham

Date submitted: 16 Oct 2015

Electronic form version 1.4