

Abstract Submitted  
for the DNP06 Meeting of  
The American Physical Society

**New measurement of the parity-violating asymmetry  $A_\gamma$  in neutron-proton capture.** ROB MAHURIN, University of Tennessee, Knoxville, NPDGAMMA COLLABORATION — The NPDGamma experiment aims to measure the parity-violating correlation  $A_\gamma$  between the neutron spin and photon direction in the capture of polarized cold neutrons on hydrogen, to a precision  $5 \times 10^{-9}$ , 10% of the expected value. This asymmetry measures the neutral weak hadronic coupling without the complicating effects of nuclear structure. In summer 2006 the collaboration will have commissioned its liquid parahydrogen target at the Los Alamos Neutron Science Center. I will present a preliminary analysis of the hydrogen data.

Rob Mahurin  
University of Tennessee, Knoxville

Date submitted: 05 Jul 2006

Electronic form version 1.4