

Abstract Submitted
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The NPDGamma experiment - A measurement of parity violation in polarized cold neutron capture NADIA FOMIN, University of Tennessee, NPDGAMMA COLLABORATION — The NPDGamma experiment aims to measure the correlation between the neutron spin and the direction of the emitted photon in neutron-proton capture. An up-down parity violating asymmetry from this process can be directly related to the strength of the hadronic weak interaction between nucleons. The first phase of the experiment was completed in 2006 at LAN-SCE. The methodology will be discussed and preliminary results will be presented. The next run will start in late 2010 at the SNS at ORNL with several improvements, which will be discussed. The upcoming run will yield a measurement with a projected statistical error 1×10^{-8} . This will finally allow the result to be compared with theoretical predictions.

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