Abstract Submitted for the APR14 Meeting of The American Physical Society

Analysis and Preliminary Results of The NPDGamma Experiment JASON FRY, Indiana University, NPDGAMMA COLLABORATION — The NPDGamma Experiment measures the parity violating gamma asymmetry from polarized neutrons captured on protons at the Spallation Neutron Source at ORNL. The parity violating asymmetry A_{γ} between the neutron spin and the photon momentum is proportional to the $\Delta I=1$ long range weak meson coupling h_{π}^1 between nucleons in the hadronic weak interaction. Liquid para-hydrogen production data has been taken since May 2012 and will continue in 2014 to measure A_{γ} to a precision of 1×10^{-8} . Various aspects of the experiment, preliminary results, and plans to complete NPDGamma in 2014 will be discussed.

Jason Fry Indiana University

Date submitted: 10 Jan 2014 Electronic form version 1.4