

Abstract Submitted
for the APR05 Meeting of
The American Physical Society

The Neutral Current Detector Phase of the Sudbury Neutrino Observatory LAURA STONEHILL, University of Washington, SUDBURY NEUTRINO OBSERVATORY COLLABORATION — The Sudbury Neutrino Observatory (SNO) has recently started taking data in the Neutral Current Detector (NCD) phase, in which an array of forty ^3He - and ^4He -filled proportional counter strings has been added to SNO's heavy water to detect neutrons liberated in neutral current interactions of neutrinos with deuterium. Pulse shape analysis of digitized current pulses from the NCDs is used to achieve the background rejection necessary to extract the neutral current signal. Alphas from uranium and thorium contamination in the NCD bodies are the primary physics background to the NCD neutron signal. This talk will focus on the NCD analysis techniques under development, and, in particular, emphasize techniques for discrimination against alpha backgrounds.

Laura Stonehill
University of Washington

Date submitted: 14 Jan 2005

Electronic form version 1.4