

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Solar neutrino flux results measured with the Neutral Current Detector array in the Sudbury Neutrino Observatory (SNO) KEITH RIELAGE, Los Alamos National Laboratory, SUDBURY NEUTRINO OBSERVATORY (SNO) COLLABORATION — In 2004, the Sudbury Neutrino Observatory (SNO) added an array of ^3He proportional counters to the 1000 tonnes of heavy water. The Neutral Current Detector (NCD) array detects the neutrons liberated in the neutral current reaction of neutrinos on deuterium. The NCD measurement of the total flux of active solar neutrinos above 2.22 MeV is decoupled from the PMT-based measurements of the electron solar neutrino flux resulting in a smaller correlation between these fluxes in this phase than in the previous SNO results. The operation of the NCD array will be discussed. The solar neutrino flux results from this 385-live-day phase and the latest global combined fits for the solar neutrino mixing angle and mass difference will be discussed. This work was supported in part by the US Department of Energy Office of Science - Nuclear Physics.

Keith Rielage
Los Alamos National Laboratory

Date submitted: 11 Jan 2008

Electronic form version 1.4