Lowering the Energy Threshold at the Sudbury Neutrino Observatory

GABRIEL OREBI GANN, University of Pennsylvania, THE SUDBURY NEUTRINO OBSERVATORY COLLABORATION — The Sudbury Neutrino Observatory has successfully demonstrated the phenomenon of neutrino oscillation by observing both the total active solar neutrino flux, via the neutral current interaction on deuterium, and the pure $\nu_e$ component via the charged current interaction. An improved analysis has lowered the energy threshold, resulting in increased statistics and a greater sensitivity to possible distortions in the incident neutrino energy spectrum. This talk discusses the systematic uncertainties dealt with in this analysis and presents the neutrino spectrum down to an effective electron kinetic energy of 3.5 MeV.