

Abstract Submitted  
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**Solar Neutrino Measurements in Super-Kamiokande-IV** ANDREW RENSHAW, University of California, Irvine, SUPER-KAMIOKANDE COLLABORATION — Super-Kamiokande-IV begin data taking in September of 2008, and with upgraded electronics and many improvements to water system dynamics, calibration, and analysis techniques the solar neutrino energy threshold was pushed down to 3.5MeV (recoil electron kinetic energy). The observed recoil electron spectrum favors a flat suppression over distortions predicted by standard neutrino flavour oscillation parameters by 1.1 to  $1.9\sigma$ . Using a maximum likelihood fit of the amplitude of the expected zenith variation, the observed day/night asymmetry of  $-2.8\pm 1.1(\text{stat})\pm 0.5(\text{syst})\%$  is consistent with zero at the  $2.3\sigma$  level. This significance is increase to  $2.9\sigma$  when combined with SNO's day/night measurement, giving a slight hint for the regeneration of electron type solar neutrinos as they travel through Earth's matter.

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