Contribution ID : **297** Type : **Poster reactor**

Towards a Precise Measurement of the 235U Antineutrino Spectrum with PROSPECT

Authorship annotation

for the PROSPECT Collaboration

Session and Location

Monday Session, Poster Wall #188 (Ballroom)

Abstract content

PROSPECT, the Precision Oscillation and Spectrum Experiment, is a reactor antineutrino experiment designed to search for eV-scale sterile neutrinos and measure the spectrum of antineutrinos from highly-enriched 235U at the High Flux Isotope Reactor (HFIR). PROSPECT uses a 4-ton, segmented 6Li-doped liquid scintillator detector to make a high-resolution measurement of the prompt energy spectrum from inverse beta decay on protons. An optical and radioactive source calibration system integrated into the active detector volume is used to characterize the optical and energy response of all detector segments. This poster will report on the initial calibration and data taking with the PROSPECT detector.

Poster included in proceedings:

yes

Primary author(s) : Prof. HEEGER, Karsten (Yale University)

Presenter(s) : Prof. HEEGER, Karsten (Yale University)

Session Classification : Poster Session Monday

Track Classification : Poster (participating in poster prize competition)