



Contribution ID: 342

Type: **not specified**

Development of PROSPECT detectors for precision antineutrino studies

Wednesday 5 August 2015 17:00 (20 minutes)

PROSPECT, the Precision Oscillation and Spectrum Experiment, will use two segmented detectors positioned 7-20m from the High Flux Isotope Reactor (HFIR) to measure the antineutrino spectrum of uranium-235 and perform a search for eV-scale sterile neutrinos. PROSPECT has developed Li-loaded liquid scintillator detectors for efficient identification of reactor antineutrinos and performed background studies near the HFIR. Multiple detectors have been built and characterized to understand the optical performance of the scintillator and pulse shape discrimination capabilities for enhanced background rejection. The results from this R&D effort will be discussed, in the context of the design and physics potential of PROSPECT.

Oral or Poster Presentation

Oral

Author: Ms NORCINI, Danielle (Yale University)

Presenter: Ms NORCINI, Danielle (Yale University)

Session Classification: Neutrino Physics

Track Classification: Neutrino Experiment