Contribution ID : **154** Type : **Poster reactor**

Calibration and quality assurance of the SoLid detector

Authorship annotation

for the SoLid collaboration

Session and Location

Monday Session, Poster Wall #171 (Ballroom)

Abstract content

SoLid is a short baseline neutrino oscillation experiment, which is searching for sterile neutrinos at the SCK·CEN BR2 reactor in Belgium. It uses a novel technology, combining PVT cubes of 5×5×5 cm^3 and ^{6}LiF:ZnS sheets of $\sim$ 250 μm thickness. To detect anti-neutrino interactions, signals are read out by a network of wavelength shifting fibers and MPPCs. This fine granularity (12800 cubes) provides powerful tools to distinguish signal from background, but presents a challenge in ensuring homogeneous detector response and calibrating light yield and neutron detection efficiency. This poster describes the results of the quality assurance process with CALIPSO system, which was deployed to perform a first calibration of the 50 detector planes to identify and correct any deficient components during the detector construction.

Poster included in proceedings:

yes

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Session Classification : Poster Session Monday

Track Classification : Poster (participating in poster prize competition)