



Contribution ID: 353

Type: Poster

PMT gain calibration for the JSNS2 experiment

The JSNS2 experiment will search for neutrino oscillations with $\Delta m^2 \sim 1 \text{ eV}^2$ from $\bar{\nu}_\mu$ to $\bar{\nu}_e$, detected via the IBD reaction and tagged via gammas from neutron capture on Gadolinium. A 3 GeV 1 MW proton beam incident on a mercury target at the MLF at J-PARC produces an intense neutrino flux from mu-DAR. The JSNS2 experiment consists of a 50 tons liquid scintillator detector, that is already completed and located at a distance of 24m from the neutrino source. JSNS2 is the only experiment that can directly test the LSND anomaly without having to rely on theoretical scaling assumptions. The commissioning of the detector has started already using LEDs with nanosecond-pulse width, and the data taking is expected to start in May 2020 after filling the detector with LS. In this poster we will introduce the results of the calibrations runs including PMT gain adjustment.

Mini-abstract

The analysis result of the calibration run using LED at the JSNS2 experiment.

Experiment/Collaboration

JSNS2 experiment / JSNS2 collaboration

Primary authors: ROTT, Carsten (Sungkyunkwan University); Mr JEON, Hyoungku (SungKyunKwan University)

Presenter: Mr JEON, Hyoungku (SungKyunKwan University)

Session Classification: Poster session 3