Contribution ID: 300 Type: Parallel talk

Precision measurements of (anti)neutrinos interactions with the SAND detector at the DUNE near site

Wednesday 4 May 2022 15:40 (20 minutes)

DUNE is a next-generation long baseline experiment for neutrino science. An advanced Near Detector (ND) complex is foreseen for limiting the systematic uncertainties and ensure high precision measurements of neutrino oscillation parameters.

The SAND apparatus is one component of the ND permanently located on-axis with the primary goal of monitoring the beam and measure the neutrino flux. In addition, the accurate control of the configuration, chemical composition and mass of the (anti)neutrino targets in SAND allows precise measurements of high statistics samples of (anti)neutrino interactions in hydrogen and other nuclear targets, including argon.

In this talk the SAND design and its physics program are discussed.

Submitted on behalf of a Collaboration?

Yes

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Session Classification: WG6: Future Experiments

Track Classification: WG6: Future Experiments