38th INTERNATIONAL CONFERENCE
ON HIGH ENERGY PHYSICS
AUGUST 3 - 10, 2016
CHICAGO

Contribution ID: **1385** Type: **Poster**

Development of the Short-Baseline Near Detector (SBND)

Saturday 6 August 2016 18:00 (2 hours)

SBND (Short-Baseline Near Detector) will be a 112 ton liquid argon TPC neutrino detector located 110m from the target of the Fermilab Booster Neutrino Beam. SBND, together with the MicroBooNE and ICARUS-T600 detectors at 470m and 600m, respectively, make up the Fermilab Short-Baseline Neutrino (SBN) Program. SBN will search for new physics in the neutrino sector by testing the sterile neutrino hypothesis in the 1 eV^2 mass-squared region with unrivaled sensitivity. The SBND plays an important role in an on-going R&D effort within neutrino physics to develop the LArTPC technology toward many-kiloton-scale detectors for next generation long-baseline neutrino oscillation experiments. In this poster the development of the SBND detector will be presented.

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Session Classification: Poster Session

Track Classification: Neutrino Physics