



Contribution ID: 103

Type: **Presentation**

## The Short Baseline Near Detector at Fermilab

*Monday, 31 July 2017 11:03 (18 minutes)*

SBND (Short-Baseline Near Detector) is a 112 ton liquid argon TPC neutrino detector under construction on the Fermilab Booster Neutrino Beam. Together with MicroBooNE and ICARUS-T600, SBND will search for shortbaseline neutrino oscillations in the  $1 \text{ eV}^2$  mass range. SBND will also perform detailed studies of the physics of neutrino-argon interactions, thanks to a data sample of millions of electron and muon neutrino interactions. Finally SBND plays an important role in the on-going R&D effort to develop the LArTPC technology, testing several technologies that can be used in a future kiloton-scale neutrino detectors for a long-baseline experiment. We will discuss the detector design, its current status, and the physics program.

**Primary author:** Dr CRESPO-ANADÓN, José Ignacio (Columbia University Nevis Laboratories)

**Presenter:** Dr CRESPO-ANADÓN, José Ignacio (Columbia University Nevis Laboratories)

**Session Classification:** Neutrino Physics

**Track Classification:** Neutrino Physics