Contribution ID: **262**
Type: **Poster**

Data Acquisition for SBND

Friday, 21 June 2024 17:30 (2 hours)

The Short Baseline Near Detector is a liquid argon time projection chamber (LArTPC) composed of a variety of subsystems which each help collect different data elements. The TPC itself uses a wire-based readout to collect drifted ionization electrons. In conjunction with this charge readout system, there is also a photon detection system (PDS) composed of two methods of scintillation light detection, traditional PMTs and SiPM-based X-ARAPUCAs. The experiment also uses a cosmic ray tagger (CRT) made of solid scintillator strips; a dedicated system which handles the management and issuing of trigger signals; and a timing system that coordinates all of these components. In order to facilitate steady physics quality data taking, the data acquisition system (DAQ) must be fully developed and vigorously tested. Integrating all subsystems to run simultaneously, with synchronized timing and sufficient data throughput is a key aspect of commissioning the detector.

Poster prize

Yes

Given name

Amy

Surname

Filkins

First affiliation

Syracuse University

Second affiliation

Institutional email

afilkins@syr.edu

Gender

Female

Collaboration (if any)

SBND

Primary author: FILKINS, Amy (Syracuse University)

Presenter: FILKINS, Amy (Syracuse University)

Session Classification: Poster session and reception 2

Track Classification: Accelerator neutrinos