

Abstract Submitted
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The SBND X-ARAPUCA Light Collection System DANIEL MISHINS, Univ of Michigan - Ann Arbor, SBND COLLABORATION — Photon detection significantly improves the calorimetric capabilities and spatial and timing resolution of Liquid Argon Time Projection Chamber (LArTPC) based neutrino detectors. We discuss the X-ARAPUCA light collection system in SBND, which uses wavelength-shifter and dichroic filters to trap photons for collection in SiPMs. We also describe the DAPHNE readout system for SiPM signals, which is used to digitize the signals from the X-ARAPUCAs and is centered around a low-cost commercial ultrasound ADC.

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