

Abstract Submitted
for the APR17 Meeting of
The American Physical Society

Studying Silicon Photomultipliers and Light Signal Acquisition for the SBND Experiment CLAIRE SAVARD, Univ of Michigan - Ann Arbor, SBND COLLABORATION — The Short-Baseline Near Detector (SBND) is one of three Liquid Argon Time Projection Chamber (LArTPC) based detectors that will be used in the Short-Baseline Neutrino (SBN) program at Fermilab. SBN will study the neutrino-argon interaction and search for oscillations at short baseline. Light produced in neutrino interactions inside a LArTPC provides a precision measurement of the initial interaction time of the event, essential for differentiating non-beam-background from beam-based signal. I will discuss the light guide system for SBND, with an emphasis on the Silicon Photomultiplier (SiPM) readout and data acquisition. In particular, I will show results from testing and characterizing a candidate electronics board for reading out the SiPM signals.

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Date submitted: 26 Sep 2016

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