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Prototype Gas Cherenkov Radiation Muon Detector For LBNE

BEN SCHLITZER, None — The proposed Long Baseline Neutrino Experiment (LBNE) beamline at Fermilab will require muon detectors in order to record the muon flux and eventually correlate this measurement to the muon-neutrino flux. At the University of Colorado, we have been conducting research to assemble a prototype muon detector using cosmic ray muons. This detector will exploit Cherenkov radiation emitted by incoming cosmic rays in order to detect whether a muon has passed though the detector. My presentation will examine the methods and apparatus used in performing experiments and analyzing data, as well as summarize results of all data collected up to the current date.

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