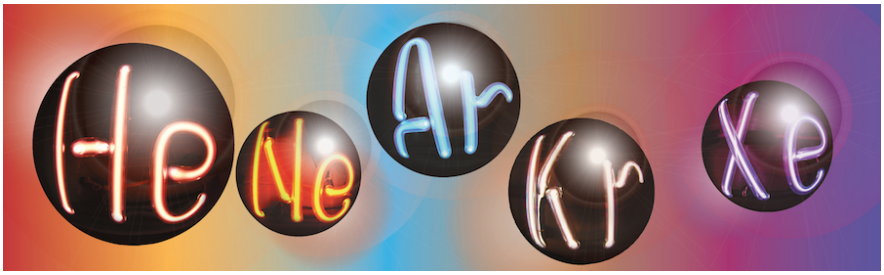

Contribution ID: **4** Type: **Presentation**

Scintillation Light Detection Performance for the DUNE ND-LAR 2x2 Modules

Friday, 23 September 2022 12:30 (15 minutes)

The Deep Underground Neutrino Experiment (DUNE) will be using a liquid argon time projection chamber (LAr TPC) with optically separated modules in the Near Detector (ND) complex. A prototype experiment for these modules, DUNE ND-LAr 2x2, is currently commissioning and constructing four test modules. These modules detect ionization charge through a pixel-based readout and scintillation light through fibers in Light Collection Modules and light traps called ArCLights. This presentation will discuss the light detection performance for two modules of DUNE ND-LAr 2x2 that took cosmic ray data at the University of Bern. The talk will discuss the role of DUNE ND-LAr 2x2 in DUNE and the reconstruction capabilities of its light detectors in terms of energy thresholds and timing resolution.

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Session Classification: Light and charge readout

Track Classification: Signal reconstruction and identification (analysis methods, simulations)