Contribution ID: 24 Type: Oral

Baryon Number Violation Searches Using the DUNE Far Detector

Wednesday, May 15, 2024 2:30 PM (30 minutes)

The DUNE experiment will have a rich set of physics topics, including neutrino oscillation and Beyond Standard Model (BSM) physics. Of great importance to the latter of these goals in baryon number violation (BNV), especially including proton decay (PDK), neutron-antineutron transformations, and dinucleon decay. All suffer from atmospheric neutrino backgrounds, which at times mimic these rare events' unique topologies. In this talk, we will review recent results in this vein using the DUNE Far Detector, and look forward to some upcoming analyses.

Primary authors: BARROW, Josh (UMN, Fermilab visitor); WAN, Linyan; STOKES, Tyler (Louisiana State

University); Dr TSAI, Yun-Tse (SLAC)

Presenter: BARROW, Josh (UMN, Fermilab visitor) **Session Classification:** Proton Decay - Parallel

Track Classification: Proton Decay