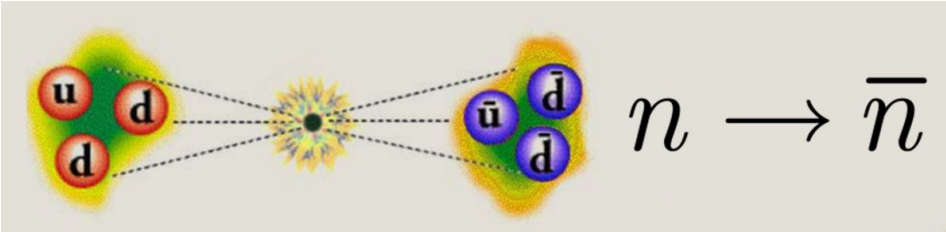

Contribution ID: **32** Type: **Oral Presentation**

Search for $n \to \bar{n}$ in the Deep Underground Neutrino Experiment

Monday, 3 August 2020 13:00 (30 minutes)

The Deep Underground Neutrino Experiment (DUNE) utilizes Liquid Argon Time Projection Chamber (LArTPC) technology to deeply probe ν and beyond Standard Model (BSM) interactions with great granularity. The DUNE Technical Design Report (TDR) prioritizes BSM searches for baryon number violation (BNV) modes such as proton decay and neutron-antineutron transformation ($n \to \bar{n}$), showing expected lower limit targets for DUNE. The previous DUNE analysis techniques used for DUNE's $n \to \bar{n}$ target will be highlighted, as well as ongoing studies utilizing similar procedures which move toward understanding intranuclear modeling systematics related to this unknown rare process.

Contribution Title

Studies for Expected Lower Limits of Bound Neutron-Antineutron Transformation in the Deep Underground Neutrino Experiment

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