Contribution ID: **486** Type: **Parallel session talk**

Searches for physics beyond the Standard Model at the Short-Baseline Near Detector

Thursday 18 July 2024 08:30 (17 minutes)

The Short-Baseline Near Detector (SBND) is a 112-ton liquid argon time projection chamber 110 m away from the Booster Neutrino Beam (BNB) target at Fermilab (Illinois, USA). In addition to its role as a near detector enabling precision searches for short-baseline neutrino oscillations, the proximity of SBND to the BNB target makes the experiment ideal for many beyond the Standard Model (BSM) searches of new particles produced in the beam. The nanosecond-timing resolution of the scintillation light detectors further boosts the experiment capabilities. In this talk, we present the status and expected sensitivity to new BSM particles such as heavy neutral leptons using a full beamline and detector simulations, as well as with a model-independent approach.

Alternate track

1. Neutrino Physics

I read the instructions above

Yes

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Session Classification: Beyond the Standard Model

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