



Contribution ID: 488

Type: **Parallel**

## Searches for physics beyond the Standard Model with the MicroBooNE experiment

*Wednesday 9 July 2025 17:15 (15 minutes)*

MicroBooNE is an 85-tonne active mass liquid argon time projection chamber (LArTPC) at Fermilab. The detector, which has an excellent calorimetric, spatial and energy resolution, has collected beam data from two different beamlines between 2015 and 2020, as well as cosmic ray data when no neutrino beam was running. These characteristics make MicroBooNE a powerful detector not just to explore neutrino physics, but also for Beyond the Standard Model (BSM) physics. Additionally, MicroBooNE is investigating the observed low energy excess (LEE) of single electromagnetic shower events reported by the MiniBooNE experiment with various searches across a number of channels the anomalous excess may originate in. This talk will discuss various newly published BSM and LEE search results as well as explore future MicroBooNE searches.

### Secondary track

**Author:** COLLABORATION, MicroBooNE

**Session Classification:** T03

**Track Classification:** T03 - Neutrino Physics