

Latest results from new physics searches in MicroBooNE

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MicroBooNE is a liquid argon time projection chamber (LArTPC) neutrino detector located in Fermilab. Operating from 2015 to 2020 it collected the largest number of neutrino interactions in liquid-argon to date. Its primary physics goal is to clarify the origins of the low-energy excess of electromagnetic activity observed by MiniBooNE; the first set of results on this were released during 2021. In addition, MicroBooNE has a rich program of neutrino-liquid argon cross section measurements, other Beyond the Standard Model physics searches, and pioneering research and development of LArTPC detector technology, all of which will be key to the success of the Fermilab Short-Baseline Neutrino Program (SBN) and the DUNE experiment. This talk will focus on our latest results of new physics searches: a search for eV-scale sterile neutrino oscillations, and a search for heavy neutral leptons and Higgs portal scalars decaying in the detector.

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