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# Latest results from MicroBooNE's electron neutrino Low Energy Excess Search

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The MicroBooNE experiment utilizes a liquid-argon time projection chamber to detect neutrinos both on-axis from Fermilab's Booster Neutrino Beam (BNB) and off-axis from the Neutrinos at the Main Injector (NuMI) beam. MicroBooNE is investigating the observed anomalous excess of electron neutrino events reported by the MiniBooNE experiment. In this presentation, we report on searches for electron neutrinos motivated by the observed anomalous excess of electron neutrino events reported by the MiniBooNE experiment. We use the full 5-year dataset of 11e20 POT collected with the BNB by MicroBooNE to search for an excess of electron neutrino events as a direct test of the MiniBooNE excess. This updated analysis investigates an excess in several kinematic variables (neutrino energy, electron energy, and electron angle) and excludes this interpretation at > 99% CL. Additionally, we report on the status of the world's first dual beam analysis which combines data from both BNB and NuMI to search for short-baseline oscillation signals. This analysis leverages the beams' substantially different flavor content to greatly enhance the experiment's sensitivity to eV-scale sterile neutrinos in the 3+1 framework.

## Working Group

WG 1: Neutrino Oscillation Physics

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