New Perspectives 2021



Contribution ID: 70

Type: not specified

MicroBooNE in 10 minutes

Tuesday, 17 August 2021 11:00 (15 minutes)

MicroBooNE is an 85 tonne liquid argon time projection chamber (LArTPC) detector situated on-axis 470m downstream the Fermilab Booster Neutrino Beam (BNB). The high spatial resolution and good calorimetric energy reconstruction of the MicroBooNE detector offers excellent particle identification and reconstruction of low-energy charged particles. While MicroBooNE is proposed to address the "low-energy excess" (LEE) in nu_e CCQE-like events observed in MiniBooNE and measure precisely neutrino-argon interaction cross sections, MicroBooNE is well suited for a variety of research and developments, such as detector construction/modeling, event reconstruction etc, which will provide significant technical experience for future LArTPC-based neutrino experiments. Having been in operation since 2015, MicroBooNE is the longest running LArTPC to date. This talk will give an overview of the MicroBooNE experiment highlighting the exciting physics conducted with MicroBooNE data.

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