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Recent Results from MicroBooNE

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MicroBooNE is a large (89-ton active mass) Liquid Argon Time Projection Chamber (LArTPC) experiment operating near the surface at Fermilab in Batavia, Illinois. The detector observes neutrino interactions from the on-axis Booster Neutrino Beam (BNB) at short distance (470 m), enabling an investigation of the MiniBooNE low-energy excess as well as neutrino-argon cross section measurements. Another key purpose of the experiment is to gain experience with the operation and calibration of large LArTPC detectors in preparation for the SBN (Short Baseline Neutrino) program at Fermilab and DUNE (the Deep Underground Neutrino Experiment). We discuss the principal physics goals of MicroBooNE and highlight aspects related to operating a large LArTPC near the surface. The MicroBooNE LArTPC calibration program and different neutrino event reconstruction techniques are discussed, and recent results from the experiment are presented.