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The ArgoNeuT and MicroBooNE Experiments at Fermi National Accelerator Laboratory

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Liquid argon time projection chambers provide an extraordinary level of information about the interactions of neutrinos. There are several different efforts ongoing at Fermi National Accelerator Laboratory to develop the liquid argon detector technology and utilize it to study neutrino interactions. Among these are the Argon Neutrino Teststand, or ArgoNeuT, project and the MicroBooNE experiment. ArgoNeuT deployed a relatively small, 170 liter, detector in the NuMI neutrino beamline at Fermilab, and the data collected during that endeavor is now being analyzed and used to measure neutrino interaction cross-sections. MicroBooNE is beginning construction this year of a 100 ton liquid argon detector which will be installed in the Booster neutrino beamline at Fermilab and used to measure a wide variety of cross-sections as well as probing the low-energy excess previously reported by the MiniBooNE experiment. This talk will include discussion of recent results and ongoing analyses from ArgoNeuT, as well as the status of the MicroBooNE experiment and its planned physics program.

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