

Abstract Submitted
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Liquid Argon Detectors for Long Baseline Neutrino Oscillation Physics BONNIE FLEMING, Yale University — Long baseline, off-axis ν_e appearance programs are sensitive to the final unknowns in the MNS neutrino mixing matrix, θ_{13} , a possible CP violating phase, δ , and with sufficient baseline, the mass hierarchy. These experiments are difficult, though, and require the best detectors to do the physics. Liquid Argon Time Projection Chambers (LArTPC) are the best way to take advantage of new high intensity neutrino beams, such as the NuMI neutrino beamline at Fermilab, to do these experiments. The sensitivity of these detectors for this physics, their feasibility, as well as a program to utilize these detectors on the NuMI beamline at Fermilab will be presented.

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