

Abstract Submitted
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NO ν A Event Reconstruction Techniques¹ ANDREW SUTTON, University of Virginia - for the NO ν A Collaboration — The NO ν A experiment measures long-baseline neutrino oscillations using the NuMI beam at Fermilab. The experiment uses liquid scintillator tracking calorimeters with a 300 ton Near Detector located underground, and a functionally-identical 14 kiloton Far Detector on the surface 810 km away. The detector location pose separate challenges. The Near Detector captures multiple overlapping neutrino events in each spill while the Far Detector, being on the surface, has a significant cosmic ray background. The neutrino appearance/disappearance analyses require accurate event reconstruction to measure the neutrino flavor and energy in each interaction. Likewise, the Near Detector cross section analysis relies on accurate identification of the particle content resulting from an interaction. This poster will describe the methods developed to separate events in time and space, locate interaction vertices, reconstruct particle tracks, and identify particles.

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