

Abstract Submitted  
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**SciNOvA: A measurement of neutrino-nucleus scattering in a narrow-band beam** REX TAYLOE, Indiana University — SciNOvA is a proposed project to deploy a fine-grained scintillator detector in front of the NOvA near detector to collect neutrino-nucleus scattering events in the NUMI, off-axis, narrow-band neutrino beam at Fermilab. This detector can make unique contributions to the measurement of charged- and neutral-current quasi-elastic scattering as well as neutral-current  $\pi^0$  and photon production. These processes are important to understand for fundamental physics and as backgrounds to measurements of electron neutrino appearance oscillations. The talk will present the strategy and science case of the SciNOvA experiment.

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