

Neutron Detection in MINERvA's Polystyrene Scintillator

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Accelerator-based neutrino experiments have historically discounted neutron detection as beyond the scope of their calorimeters and trackers. The MINERvA experiment has detected signals from 10-100 MeV neutrons from neutrino interactions in its polystyrene scintillator tracker. Energy deposit, timing, and distance from neutrino interaction point are explored for access to neutron kinematics. New neutron counting efforts in MINERvA's nuclear targets could help control systematic uncertainties in next-generation neutrino oscillation experiments that use detectors based on nuclei other than carbon.

TIPP2020 abstract resubmission?

No, this is an entirely new submission.

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