

Cosmic Muon induced EM Showers in NOvA Experiment

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The NOvA experiment is a new appearance neutrino oscillation experiment at Fermilab. It identifies the new signal by the electromagnetic (EM) showers induced by the electrons in the final state of neutrino interactions. Cosmic muon induced EM showers, dominated by bremsstrahlung, are abundant in NOvA far detector. We use the Cosmic Muon-Removal technique to get pure shower sample from cosmic data. The large Cosmic-EM sample can be used to characterize the EM signature and provides valuable checks of the MC simulation, reconstruction, PID algorithm, and calibration across the NOvA detector.

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Yes

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No

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