

Abstract Submitted  
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**Determination of hadronic activity near the neutrino interaction vertex for the NOvA cross-section measurements<sup>1</sup>** CHATURA KURUPPU, Univ of South Carolina, NOVA COLLABORATION — NOvA is a long-baseline neutrino oscillation experiment with two functionally identical detectors that use Fermilab's NuMI beam. NOvA is designed to measure the neutrino mixing angles and to discover the neutrino mass hierarchy, probe leptonic CP violation by measuring the oscillation of muon (anti)neutrinos to electron (anti)neutrinos between the near detector at Fermilab and the near detector in Ash River, Minnesota. The near detector provides an excellent platform to perform high-statistics studies of neutrino-nucleus interactions. The observation of this hadronic activity is of great importance of the identification of rare interactions such as charged-current coherent interactions. This poster will explain the importance of determining hadronic activity near the neutrino interaction vertex, how it's been determined, and its application to neutrino-nucleus scattering analyses.

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