

First Measurement of Electron Neutrino Cross Section on Argon

Wednesday, July 29, 2020 5:45 PM (15 minutes)

ArgoNeuT has produced the first fully-automated reconstruction and selection of GeV-scale electron neutrinos scattering on argon, extracting a $\nu_e + \bar{\nu}_e$ total cross section. This talk will describe those results, emphasizing the novel electromagnetic shower classification tools developed for identifying GeV-scale ν_e -like interactions among complex backgrounds and the broader context with respect to DUNE oscillation physics, where electron neutrino classification at the GeV scale is highly relevant but data-based studies are largely absent.

Secondary track (number)

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