

# Electrons for Neutrino - the next generation

*Tuesday 25 October 2022 09:00 (30 minutes)*

The ability of current and next generation accelerator based neutrino oscillation measurements to reach their desired sensitivity and provide new insight into the nature of our Universe, requires a high-level of understanding of the neutrino-nucleus interactions. These include precise estimation of the relevant cross sections and the reconstruction of the incident neutrino energy from the measured final state particles.

The electron for neutrinos collaboration leverages wide phase-space exclusive electron scattering data with known beam energies to test energy reconstruction methods and interaction models. The dedicated 2022 data taking run was performed with beams at the same energy region and on similar nuclear targets as expected in the next generation of accelerator based neutrino oscillation experiments. The talk will summarise our recent results and the data taking effort.

**Author:** STEINBERG, Noah (Fermi National Accelerator Laboratory)

**Co-author:** ASHKENAZI, Adi

**Presenter:** STEINBERG, Noah (Fermi National Accelerator Laboratory)

**Session Classification:** Electron-Nucleus Scattering