Contribution ID: **83** Type: **Poster**

Collider Neutrino Studies with the FASER Electronic Detector

Monday 1 September 2025 17:30 (20 minutes)

The LHC offers a unique environment to study neutrinos in the intermediate energy range between those produced in fixed-target accelerator experiments and high-energy astrophysical sources. The FASER experiment takes advantage of the intense, highly collimated flux of light hadrons produced at Interaction Point 1 (IP1) to probe high-energy collider neutrinos. Using the electronic detector alone, FASER has measured the muon neutrino cross section and flux in this energy regime with unprecedented precision. With a dataset corresponding to approximately 200 fb^{-1}, further studies using only the electronic detector are underway, promising improved constraints on neutrino properties in this previously unexplored energy range.

Author: ELEY, Sinead (University of Liverpool (GB))

Presenter: ELEY, Sinead (University of Liverpool (GB))

Session Classification: Poster Session

Track Classification: NuFACT 2025: WG2 - Neutrino Scattering