Contribution ID: **3** Type: **not specified**

Inverse Muon Decay Reactions at SND@LHC and FASERν

In long-baseline neutrino experiments, the systematic uncertainty associated with neutrino flux remains one of the primary challenges for precision measurements. Inverse Muon Decay (IMD) has a unique characteristic since it's a purely leptonic process and its cross-sections can be theoretically calculated with precision. We can study the IMD reactions at SND@HL-LHC and FASER by simulating neutrino interactions with GENIE3. Considering a tungsten (W184) target, the muonic neutrino fluxes for the pseudorapidity regions at SND ($7.2 < \eta < 8.6$) and FASERν ($\eta \leq 8.3$) with neutrino energies up to few TeV.

Author: MELLA ALVAREZ, Fernanda (UC)

Presenter: MELLA ALVAREZ, Fernanda (UC)

Session Classification: Posters