The 24th International Workshop on Neutrinos From Accelerators (NuFact 2023)

Contribution ID: 53

Type: Oral

The NEUT Generator: Status and Plans

Friday 25 August 2023 08:50 (20 minutes)

The NEUT generator has a long, storied history. Originally written to predict neutrino induced backgrounds for the Kamioka Nucleon Decay Experiment (Kamiokande), it is now relied upon by T2K to simulate signal and background interactions for their oscillation and neutrino scattering cross section measurements. Looking to the future, the next-generation Hyper-Kamiokande experiment expects to rely on NEUT predictions for their flagship precision CP violation measurements.

This talk will introduce recent model development in NEUT in the context of comparisons to cross-section measurements. It will also discuss ongoing modernisation efforts for both HyperK and better compatibility with other tools that will be developed by the neutrino-scattering community in the build up to next-generation experiments and their modelling precision and tooling needs.

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Track Classification: WG2: Neutrino Scattering Physics