Contribution ID: 269

Type: Talk

EMPHATIC: Table-top Hadron Scattering Measurements for Improved Neutrino Flux Predictions

Tuesday, 2 August 2022 18:00 (20 minutes)

State-of-the-art predictions of accelerator-based neutrino fluxes have uncertainties ranging from 5-15%, dominated by hadron production uncertainties. The EMPHATIC Collaboration has proposed a unique, compact spectrometer to measure hadron-scattering and hadron-production cross sections that are needed to reduce neutrino flux uncertainties for current and future neutrino experiments to the few-percent level. In this talk I present an overview of the motivation, design and run plan of the experiment, and progress in data collection and analysis.

Attendance type

In-person presentation

Primary author: PALEY, Jonathan (Fermilab)

Presenter: PALEY, Jonathan (Fermilab)

Session Classification: WG2: Neutrino Scattering Physics

Track Classification: WG2: Neutrino Scattering Physics