



Contribution ID: 148

Type: Poster

## NA61/SHINE Experiment - New Results from the Neutrino Program and Future Prospects

A precise prediction of the neutrino flux is a key input for accelerator-based neutrino experiments. Neutrino beams are created from the decays of secondary hadrons produced in hadron-nucleus interactions. Hadron production is the leading systematic uncertainty source on the neutrino flux prediction; therefore, its precise measurement is essential.

The neutrino program of the NA61/SHINE experiment at the CERN SPS makes measurements of production of secondary hadrons. This contribution will review recent hadron production measurements for precise neutrino flux predictions needed by Fermilab long-baseline neutrino experiments. This contribution will also review the status of ongoing NA61/SHINE facility upgrade and the prospects for future hadron production measurements after the Long Shutdown 2 of the accelerator complex at CERN.

### Mini-abstract

Hadron production measurements with NA61/SPS Heavy Ion and Neutrino Experiment (NA61/SHINE) at CERN

### Experiment/Collaboration

NA61/SHINE

**Primary author:** NAGAI, Yoshikazu (University of Colorado Boulder)

**Presenter:** NAGAI, Yoshikazu (University of Colorado Boulder)

**Session Classification:** Poster Session 1