

Hadron production measurements for neutrino oscillation experiments at NA61/SHINE

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Hadron production measurements are crucial for helping long baseline neutrino oscillation experiments constrain their beam flux uncertainties. These uncertainties represent a leading systematic uncertainty on measured neutrino oscillation parameters. At the NA61/SHINE experiment on CERN's Super Proton Synchrotron, interactions of charged hadrons with various materials relevant to neutrino production are recorded and analyzed, resulting in differential cross-sections of charged and neutral particles contributing to neutrino flux. Both thin targets and replica targets have been measured at NA61/SHINE, and more replica target measurements are foreseen after CERN's Long Shutdown 2. New thin target results will be shown.

Secondary track (number)

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