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## Measurement of Charged Pion Cross Sections in Proton Carbon Interactions at 31 GeV/c with the NA61/SHINE experiment

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Among other goals, the NA61/SHINE (SHINE= Sps Heavy Ion and Neutrino Experiment) aims at precise hadron production measurement for improving calculations of the neutrino flux in the T2K neutrino oscillation experiment.

These measurements are performed using a 30 GeV proton beam produced at the SPS with carbon targets of different thickness, including a replica of the T2K target.

Inclusive production cross sections for negatively and positively charged pions have been obtained from a set of data collected during the first NA61/SHINE run in 2007 with a 2cm graphite target (4% of the interaction length).

The NA61/SHINE spectrometer and PID capabilities are shown and the results from different analysis are discussed.

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