Status of the Charged Pion Production Cross Section Measurements at MIPP

GURAL AYDIN, The University of Iowa — The MIPP (Main Injector Particle Production) Experiment is a fixed target experiment at Fermilab to measure hadronic production for different targets and beam energies. Data were taken in 2005 on targets including aluminum, beryllium, bismuth, carbon, copper, and uranium, a cryogenic hydrogen target, and the NuMI target using six types of beam particles (pion, kaon, and proton of both charges) for the beam energies ranging from 5 GeV/c to 120 GeV/c. The MIPP experiment used Fermilab Main Injector protons as 120 GeV/c beam. We present the status of the charged pion production cross section measurements of 58 GeV/c and 120 GeV/c proton beam on a thin carbon target in terms of final state particle’s longitudinal and transverse momenta.

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