

Pion production in p+p and p+C interactions at 31 GeV/c

Evidence for the onset of deconfinement in central Pb+Pb collisions was reported by NA49 at the CERN SPS at collision energy 30A GeV. This observation motivated the NA61/SHINE ion program which, in particular, aims to study properties of the onset of deconfinement by measurements of hadron production in p+p, p+A and nucleus-nucleus collisions at the SPS energies. The program started in 2009 when the on p+p interactions at 20, 31, 40, 80, and 158 GeV/c were recorded.

This contribution presents preliminary spectra of negatively charged pions produced in p+p and p+C interactions at 31 GeV/c. The NA61 results will be compared with the corresponding NA49 data from central Pb+Pb collisions at this energy. Finally, the dependence of pion yield on reaction type at 31A GeV/c (NA61 and NA49 results) and 158A GeV/c (NA49 results) will be compared and discussed.

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