

D+s production in pp collisions at 7 TeV and prospects for the Pb-Pb analysis with the ALICE detector

The measurement of the charm production cross section in pp collisions at the LHC allows one to test the perturbative QCD predictions in a new energy regime. Furthermore, it provides a reference for charm measurements in Pb-Pb collisions in which heavy quarks are expected to be sensitive probes for the properties of the medium.

D+s mesons have been reconstructed at mid-rapidity with the ALICE detector through the decay channel $D+s \rightarrow K+K\text{-}\pi^+$ in pp collisions at $\sqrt{s} = 7$ TeV. We present the pt-dierential cross section and we compare it to that of D0, D+ and D*+ mesons also measured with ALICE in the same collision system. The status of the D+s analysis in Pb-Pb collisions at $\sqrt{s_{NN}} = 2.76$ TeV is also discussed.

Primary author: Dr GIAN MICHELE, Innocenti (Universita' di Torino - Italy)