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Production measurements of heavy-quarks in pp collisions at 13 TeV with the ALICE detector.

Heavy-flavour production measurements in pp collisions are important tools to test theoretical models based on pertubative quantum chromodymanics (pQCD) and to investigate the heavy-quark hadronization mechanisms. In ALICE, heavy quarks are measured via the hadronic and electronic decay channels at central rapidity (|η|<0.9), and via the muon decay channels at forward |η|<0.9), and via the muon decay channels at forward<0.9), and via the muon decay channels at forward), and via the muon decay channels at forwardη|<0.9), and via the muon decay channels at forward rapidity (-4< <-2.5).).η|<0.9), and via the muon decay channels at forward rapidity (-4< <-2.5).

In this contribution, the production cross-sections measurements of leptons from heavy-flavour hadron decays are presented and compared to pertubative quantum chromodymanics (pQCD) theoretical calculations. The latest measurements of D0, D+,D +⋆+ and D+s mesons together with the measurements of Λ +c , Ξ0,+c , Σ0,++c and the measurement of Ω0c baryons performed with the ALICE detector at midrapidity in pp collisions at √s = 13 TeV are also presented. Measurements of charm-baryon production are crucial to study the charm-quark hadronization mechanisms in a partonic rich environment like the one produced in pp collisions at the LHC energies.

Abstract Category

Particle Physics

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