

Measurements of heavy-flavour production in pp collisions at $\sqrt{s} = 13$ TeV with the ALICE detector.

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Heavy-flavour production measurements in pp collisions are important tools to test theoretical models based on perturbative quantum chromodynamics (pQCD) calculations and to investigate the mechanisms of heavy-quark hadronization. In ALICE, heavy-flavour particles are measured via the hadronic and electronic decay channels at central rapidity ($|\eta| < 0.9$), and via the muonic decay channels at forward rapidity ($-4 < \eta < -2.5$).

In this contribution, the production cross section measurements of leptons from heavy-flavour hadron decays are presented and compared to pQCD-based calculations. In particular, the measurements of heavy-flavour decay muon at forward rapidity and electron production at mid-rapidity as a function of charged-particle multiplicity in pp collisions at $\sqrt{s} = 8$ and 13 TeV will be presented, respectively. Measurements of charm-hadron production are crucial to study the charm-quark hadronization mechanisms in a partonic-rich environment generated in pp collisions at the LHC energies. The latest measurements of D-mesons and charm-hadron production performed with the ALICE detector at midrapidity in pp collisions at $\sqrt{s} = 13$ TeV are also presented. These results will also be compared to theoretical model calculations.