

Measurement of electrons from heavy-flavour hadron decays in pp collisions at $\sqrt{s} = 13$ TeV in the ALICE experiment

Tuesday, 11 July 2017 17:40 (20 minutes)

Proton-proton collisions at the LHC are an excellent source of experimental data that allow us to test particle-production processes calculable with perturbative QCD. Heavy quarks (charm and beauty) are an interesting probe because, due to their large masses, the energy scales involved in their production are large. Therefore their production cross section can be calculated with perturbative QCD. In addition to that, the pp data provide a necessary reference for the study of the Quark-Gluon Plasma (QGP) produced in Pb-Pb collisions. Since heavy quarks are produced in the very beginning of the collision and survive all the QGP evolution, the comparison between the pT spectra of electrons from heavy-flavour hadron decays in Pb-Pb and pp collisions can provide information on how the heavy quarks lose energy by interacting with the QGP constituents. In the poster, we will show the status of the measurement of electrons from heavy-flavour hadron decays in pp collisions at $\sqrt{s} = 13$ TeV. The data were collected in the run 2 of LHC with the ALICE experiment. Electron identification is performed with the Time Projection Chamber and Time-Of-Flight detectors, up to 4 GeV/c. All analysis steps necessary for measuring the heavy-flavour electron spectra will be discussed, including the data-driven method used to subtract the large photonic background component at low transverse momentum.

List of tracks

Heavy-flavour (open and hidden)

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Session Classification: Poster session

Track Classification: Heavy-flavour (open and hidden)