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Production of heavy-flavour hadron decay electrons in pp collisions at $\sqrt{s} = 13$ TeV as a function of charged-particle multiplicity with ALICE

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The study of heavy flavours in pp collisions as a function of the charged particle multiplicity gives an insight into the particle production mechanisms. Moreover, the multiplicity dependence of the heavy flavour yield in pp collisions is sensitive to the large amounts of gluon radiation and the contribution of Multiple Parton Interactions (MPI) in the collisions.

In this contribution, we present the measurement of the yield of heavy-flavour hadron decay electrons at mid-rapidity ($|\eta| < 0.8$) as a function of transverse momentum and charged particle multiplicity in pp collisions at $\sqrt{s} = 13$ TeV. Electron identification is done within $0.5 < p_T < 4.5$ GeV/c with the Time Projection Chamber (TPC) and the Time of Flight (TOF) detectors of the ALICE apparatus. The measurement of electrons from heavy-flavour hadron decay is expressed in terms of the ratio of the yield in a particular multiplicity interval to the multiplicity integrated yield (self-normalized yield). The result is given as a function of the relative charged particle pseudorapidity density within $|\eta| < 1$.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

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