

Open heavy flavour analysis with the ALICE experiment at the LHC

Abstract content

for the ALICE collaboration

The ALICE experiment at the LHC is taking data in proton-proton collisions at the center-of-mass energy of 7 TeV starting from March

1. Heavy-ion collisions are expected to be delivered during November 2010.

Among other particles charmed and beauty mesons can be reconstructed by the ALICE apparatus. Open heavy flavour mesons provide a powerful tool to study hot quark matter produced in high energy heavy-ion collisions because their spectra are expected to be affected by the energy loss in the medium. Measuring such particles is important also in proton-proton collisions. In this case they provide a necessary reference for heavy-ion collisions and allow to test pQCD predictions in a new energy domain. Different ways to reconstruct D and B mesons will be described together with adopted selection and analysis techniques. D mesons in the central rapidity region are reconstructed via 2,3, and 4-prongs hadronic decays and via single electrons. In the forward region single muons are used to reconstruct D and B mesons decays. Latest results for D mesons, single electrons and single muons will be presented.

Summary

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