Azimuthal angular correlations between heavy flavor decay electrons and charged hadrons in pp collisions at 2.76 TeV in ALICE

In ultra-relativistic heavy-ion collisions, heavy quarks, i.e. charm and beauty, are produced in the early stage by hard scattering processes and experience the full evolution of the strongly-interacting system. They therefore carry relevant information on the properties of the medium. In such collisions, heavy flavour hadrons can be measured from electrons produced in their semileptonic decays. The relative contribution of charm and beauty hadrons can be estimated from the study of the near side azimuthal angular correlations between these electrons and charged hadrons.

We present the azimuthal angular correlations between electrons and charged hadrons in pp collisions at 2.76 TeV measured with ALICE at the LHC. Electrons are identified using the electromagnetic calorimeter and the Time Projection Chamber and the charged hadrons are identified using Time Projection Chamber. The azimuthal angular correlation distributions from PYTHIA simulations are used to fit the data in order to extract the relative contribution of B-hadron decays to the yield of electrons from heavy flavour decays up to $p_T = 10 \text{ GeV/c}$.

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