Contribution ID: **40** Type: **Poster**

D0-meson production as a function of event transverse spherocity in pp collisions at $\sqrt{s}$ = 7 TeV with ALICE at the LHC

Tuesday, 15 May 2018 19:10 (30 minutes)

Multiplicity and event-shape variables like spherocity can be used to select events according to their topology. They provide a powerful tool to study soft-QCD processes (low Q^2), such as multiple parton interactions (MPI) and colour reconnection (CR) mechanisms which are expected to produce more isotropic events with respect to events dominated by jet production.

At the Large Hadron Collider (LHC) energies, heavy quarks are produced in hard scattering processes and their production can be described using perturbative quantum chromodynamics (pQCD). The measurements of open heavy-flavour hadrons as a function of spherocity and charged-particle multiplicity could improve the theoretical understanding of the production mechanisms, and the interplay between hard and soft processes.

In this contribution, recent results of the production of prompt D^0-meson as a function of event transverse spherocity (S_O) in minimum bias pp collisions at $\sqrt{s}$ = 7 TeV will be presented. The results will be compared to predictions obtained with PYTHIA event generator.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

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Session Classification: Poster Session

Track Classification: Open heavy flavour