

Study of charm fragmentation with charm meson and baryon angular correlation measurements with ALICE

Friday 19 July 2024 11:00 (15 minutes)

Fragmentation functions (FFs) are typically parametrised exploiting measurements performed in e^+e^- and e^-p collisions, under the assumption of universality across collision systems. Measurements of charmed-hadron yields in pp collisions at LHC have proved that the fragmentation of heavy quarks differ in hadronic and leptonic collisions.

In this talk, we present measurements of differential observables that allow for a closer connection to the charm FFs and put stronger constraints on the properties of hadronisation in hadronic collisions. We report the results of angular correlations between D mesons and charged particles in pp collisions, including the first studies with Run 3 data. The latter are also compared to the correlations of Λ_c^+ and charged particles in pp collisions. We also present the final measurement of the fraction of longitudinal momentum of jets carried by Λ_c^+ baryons in pp collisions at $\sqrt{s} = 13$ TeV.

Alternate track

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Yes

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