

Study of jet fragmentation in ALICE

Tuesday 25 April 2023 17:00 (20 minutes)

Jets provide unique and powerful probes to study Quantum Chromodynamics in proton-proton collisions and the quark-gluon plasma medium in heavy-ion collisions. Among these probes, measurement of jet substructure and of the distribution of hadronic constituents within a jet provide a detailed look into the partonic shower process. ALICE has recently measured and published transverse momentum (j_T) distributions of the jet fragments in proton-proton and proton-lead collisions. Further follow-up analysis is done to separate two components related to jet fragments and hadronisation. The study has been extended to j_T measurements in different momentum fraction z ranges for a more detailed look. In this talk, the latest results on measurements of transverse momentum of charged-particle jet fragments in pp collisions by the ALICE Collaboration will be presented. The results are compared with various models to test our understanding of jet fragmentation.

Theory / experiment

Experiment

Group or collaboration name

ALICE

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