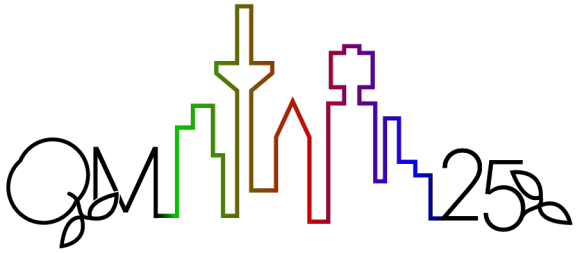

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EPJ Featured Poster: Measurement of the transverse momentum(j_T) distributions of charged-particle jet fragments in minimum-bias and high multiplicity pp collisions at $\sqrt{s}$ = 13.6 TeV with ALICE

Jet substructure measurements, based on the distribution of final-state hadrons, offer insights into parton shower dynamics and hadronization. Observables such as the transverse momentum fraction (j_{T}) and longitudinal momentum fraction (z) of jet constituents, provide valuable information on these processes. The ALICE collaboration has recently reported measurements of the j_{T} distributions for jet fragments in inclusive and differential z in proton-proton and proton-lead collisions at $\sqrt{s_{\mathrm{NN}}}$ = 5.02 TeV, with quantitative comparisons to various theoretical models. In this poster, we present a new measurement of jet fragmentation in pp collisions, extending the precision of the previous measurement using the new high statistics data samples from Run 3. The results will also be presented differentially in event multiplicity, investigating potential medium effects in high multiplicity pp collisions. The j_{T} distributions are characterized through fits that separately constrain the perturbative and hadronization components, providing a basis to probe modifications at early times in the evolution of the jet.

Category

Experiment

Collaboration (if applicable)

ALICE

Author: RYU, Jaehyeok (Pusan National University (KR))

Presenter: RYU, Jaehyeok (Pusan National University (KR))

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