## Quark Matter 2023



Contribution ID: 558

Type: Poster

## Measurement of the transverse momentum( $j_T$ ) distributions of charged-particle jet fragments in pp collisions at $\sqrt{s}$ = 5.02 TeV with ALICE

Tuesday 5 September 2023 17:30 (2h 10m)

Measurement of the jet substructure and the distribution of final state hadrons within a jet provide a detailed look into both the partonic shower and hadronisation process. These processes can be studied using the transverse momentum  $(j_{\rm T})$  and longitudinal momentum fraction (z) of constituent particles. ALICE has recently measured the transverse momentum distributions of the jet fragments in proton-proton and proton-lead collisions at  $\sqrt{s_{NN}} = 5.02$  TeV with ALICE. Various parton-shower models were shown to reasonably describe the pp results. We now extend this analysis to more detailed measurements of the  $j_{\rm T}$  distributions for charged-particle jets in pp collisions, in several z ranges. The z-dependent  $j_{\rm T}$  distributions are compared with the theoretical predictions to test our current understanding of jet fragmentation.

## Category

Experiment

## Collaboration (if applicable)

ALICE

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Track Classification: Jets