

B-jet fragmentation measurements using ATLAS detector

Friday, June 9, 2023 10:40 AM (20 minutes)

Accurate modelling of the b-jet fragmentation is important for measurements at the LHC where b-jets identification is required to isolate signal or reject backgrounds. In this talk, we present the measurement of b-quark fragmentation properties into jets using the decay of B hadrons to J/Psi and Kaon in pp collisions at the centre-of-mass energy of 13 TeV. In addition, charged-particle fragmentation observables are measured in b-jets produced in events with top quark pairs using data collected at the centre-of-mass energy of 13 TeV. The data are corrected for detector effects and compared to the predictions of state-of-the-art Monte Carlo event generators that include various parton shower and hadronisation approaches.

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