

Abstract Submitted
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Analysis of the inclusive differential jet spectrum in pp collisions at $\sqrt{s}=2.76$ TeV with ALICE at the LHC RONGRONG MA, Yale University — Quantum-Chromodynamics (QCD) predicts that a new state of hot, dense matter, normally referred to as the Quark-Gluon Plasma (QGP), can be created in ultra-relativistic heavy-ion (HI) collisions. Investigating the features of this strongly interacting matter has been the main goal of the field. Full jet reconstruction provides a direct, unbiased probe to study the medium effects. With the advent of the HI run at the Large Hadron Collider (LHC), we are able to measure QGP properties in a new energy domain. In this talk, we present the analysis of the inclusive differential jet spectrum in pp collisions at $\sqrt{s}=2.76$ TeV, which is an essential reference for jet measurements in Pb-Pb collisions at the same $\sqrt{s_{NN}}$. The measurement is based on charged particle tracking in the ALICE central tracking system, and neutral energy measured in the Electromagnetic Calorimeter (EMCal). Especially, high tower triggers provided by the EMCal are used to greatly enhance the kinematic reach of the inclusive jet cross section measurement with ALICE.

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