

Abstract Submitted
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An Analysis of Simulated Identified Particle Spectra in ALICE at Intermediate and High Transverse Momentum¹ XIEYUE FAN, Yale University, ALICE COLLABORATION — High transverse momentum (p_T) particles have provided a wealth of information on the hot and dense matter created in heavy-ion collisions at the Relativistic-Heavy Ion Collider (RHIC) at BNL. Charged, high- p_T particles were observed to be suppressed relative to binary scaling. Also, a difference between baryon and meson spectra at intermediate p_T was found. With the startup of the Large Hadron Collider (LHC) at CERN coming in 2007, it will be interesting to see how these effects evolve with increasing beam energy. To explore the capabilities of the ALICE experiment, we present an analysis of simulated events from PYTHIA ($p + p$) and HIJING (Pb+Pb) at 5.5 TeV/Nucleon. Particles from these simulated events are propagated through the ALICE GEANT model and reconstructed using the full software chain. Characterizations of identified particle spectra and yields are presented, with focus on the high p_T region.

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Xieyue Fan
Yale University

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