

Abstract Submitted  
for the APR10 Meeting of  
The American Physical Society

**Inclusive Jet Cross Section in Early LHC Data using the ATLAS Inner Detector** S.C. ZENZ, University of California Berkeley and Lawrence Berkeley National Laboratory, ATLAS COLLABORATION — We present a method to study the emergence of low-momentum hadronic jets from soft proton-proton collisions with the ATLAS experiment at the Large Hadron Collider at CERN. The jets are reconstructed using tracks from the ATLAS Inner Detector. The track-based measurement will provide an independent check of calorimeter-based jet studies, and will allow the study of lower-momentum jets. This jet cross-section measurement, at the LHC's previously-unexplored energies, will provide new tests of quantum chromodynamics. We report on studies with Monte Carlo-simulated events for an analysis planned for early, low-luminosity data collected with a minimum bias trigger.

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Date submitted: 23 Oct 2009

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