

Abstract Submitted
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Study of transition radiation in the ATLAS Transition Radiation Tracker using test beam and cosmic ray data¹ ALEX HARVEY, Hampton University, ATLAS COLLABORATION — Experiments at the design luminosity of the LHC face a challenge in particle identification. Many of the interesting event signatures involve leptons. Transition radiation (TR) as a constraint on identification of ultra-relativistic electrons can be significant in rejecting background while efficiently selecting interesting events. The ATLAS Transition Radiation Tracker (TRT) is designed to produce and detect TR with this in mind. Simulations of TR will be compared with data taken during the 2004 ATLAS Combined Test Beam run and during the 2008 and 2009 cosmic-ray commissioning runs.

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