

Abstract Submitted
for the APR10 Meeting of
The American Physical Society

Study of the behavior of highly ionizing particles in the ATLAS Transition Radiation Tracker K. FINELLI¹, A. BOCCI, E.B. KLINKBY, M. KRUSE, Duke University, ATLAS COLLABORATION — The Transition Radiation Tracker (TRT) is the outermost of the 3 tracking subsystems of the ATLAS Inner Detector at the Large Hadron Collider. It is a straw based gas detector providing continuous tracking as well particle identification capability. It also provides information about the amount of ionization produced by charged particles crossing the straws. In this talk we present a study of the detector response to heavy ionizing particles that could either be heavy or doubly charged as predicted by some new physics models. We also discuss studies using this information in the TRT to discriminate these particles from those with normal ionization.

¹Presenter

Jaehoon Yu
Univ. of Texas at Arlington

Date submitted: 23 Oct 2009

Electronic form version 1.4