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## Performance of Particle Identification with the ATLAS Transition Radiation Tracker >

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The ATLAS Transition Radiation Tracker (TRT) is the outermost of the three sub-systems of the ATLAS Inner Detector at the Large Hadron Collider at CERN. In addition to its tracking capabilities, the TRT provides particle identification (PID) ability through the detection of transition radiation X-ray photons. The latter functionality provides substantial discriminating power between electrons and hadrons in the momentum range from 1 to 200 GeV. In addition, the measurement of an enhancement of signal time length, which is related to high specific energy deposition ( $dE/dx$ ), can be used to identify highly ionizing particles, increasing the electron identification capabilities at low momentum and improving the sensitivity of searches for new physics. This talk presents the commissioning of TRT PID during early 2010 7 TeV data taking. Performance in 2010 and 2011 demonstrating the TRT's ability to identify electrons, complementary to calorimeter based identification methods, will also be shown.

**Primary author:** HINES, Elizabeth (Department of Physics and Astronomy-University of Pennsylvania)

**Presenter:** HINES, Elizabeth (Department of Physics and Astronomy-University of Pennsylvania)

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