

Abstract Submitted  
for the APR10 Meeting of  
The American Physical Society

**Studies of Electron Trigger and Identification Efficiencies using  $Z \rightarrow e^+e^-$  simulation at the ATLAS** HO LI, MONICA DUNFORD, YOUNG-KEE KIM, The University of Chicago, ATLAS COLLABORATION — Events with electrons in the final state are important signatures for many physics topics envisaged at the LHC, including studies of  $W$  and  $Z$  bosons, top quarks, Higgs bosons, Supersymmetry,  $Z'$  bosons, and other new physics processes beyond the standard model. It is therefore crucial to understand and measure the electron trigger efficiencies and identification efficiencies. In this presentation, we show studies of electron trigger and identification efficiencies at the ATLAS experiment using  $Z \rightarrow e^+e^-$  Monte Carlo simulation events. We present the efficiencies of various electron selection criteria and their dependency on electron energy. We also present the acceptance of  $Z \rightarrow e^+e^-$  events, and the acceptance of  $Z' \rightarrow e^+e^-$  events.

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Date submitted: 27 Oct 2009

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