Measurement of $Z\rightarrow ee$ differential cross sections in proton-proton collisions at $\sqrt{s}=7$ TeV with the ATLAS detector

HAO LIU, University of Michigan — We report the differential cross-section measurements of the $Z\rightarrow ee$ with respect to the transverse momentum and rapidity of $Z$ boson produced in proton-proton collisions at $\sqrt{s} = 7$ TeV with the ATLAS detector. The analysis is based on a dataset corresponding to an integrated luminosity of approximately 36.6 pb$^{-1}$ collected in year 2010. The results are compared with theoretical expectations.