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**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  $36.6 \text{ pb}^{-1}$  collected in year 2010. The results are compared with theoretical expectations.

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