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The Muon Charge Asymmetry Measurement in Inclusive $pp \rightarrow W + X$ production at $\sqrt{s} = 7$ TeV HASAN OGUL, The University of Iowa, CMS COLLABORATION — Measurements of the muon charge asymmetry in inclusive $pp \rightarrow W + X$ production at $\sqrt{s} = 7$ TeV are presented. The data sample corresponds to an integrated luminosity of 4.7 fb⁻¹ recorded by the CMS detector at the LHC. With a sample of more than 20 million $W \rightarrow \mu\nu$ events, the statistical precision is greatly improved in comparison to previous measurements. These new results provide additional constraints on the parton distribution functions of the proton in the Bjorken parameter x range from 0.001 to 0.1.

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