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Measurement of W Boson Production Charge Asymmetry at CDF BO-YOUNG HAN, KEVIN MCFARLAND, University of Rochester, EVA HALKIADAKIS, Rutgers University, CDF COLLABORATION — We present a measurement of the W boson production charge asymmetry using the $W \to e\nu$ decay channel. We use data collected by the Collider Detector at Fermilab from $p\overline{p}$ collisions at $\sqrt{s} = 1.96$ TeV. The data represent an integrated luminosity of 1 fb^1. Our measurement of the W production charge asymmetry is compared to higher order QCD predictions generated using MRST2006 and CTEQ6 parton distribution functions. The asymmetry provides new input on the momentum fraction dependence of the u and d quark parton distribution functions within the proton.

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