

Abstract Submitted
for the APR12 Meeting of
The American Physical Society

Measurement of the W boson mass at CDF YU ZENG¹, Duke University, DANIEL BEECHER, ILIJA BIZJAK, University College London, CHRIS HAYS, University of Oxford, BODHITHA JAYATILAKA, ASHUTOSH KOTWAL, Duke University, TOM RIDDICK, University College London, OLIVER STELZER-CHILTON, TRIUMF, DAVID WATERS, University College London, CDF COLLABORATION — We describe a measurement of the W boson mass using ≈ 2.2 fb⁻¹ of $\sqrt{s} = 1.96$ TeV $p\bar{p}$ collision data collected by the CDF Run II detector at Fermilab. With 470,126 $W \rightarrow e\nu$ candidates and 624,708 $W \rightarrow \mu\nu$ candidates, we measure $m_W = 80387 \pm 19$ MeV/ c^2 . This is the most precise measurement of the W boson mass to date.

¹For the CDF Collaboration

Yu Zeng
Duke University

Date submitted: 23 Mar 2012

Electronic form version 1.4