Abstract Submitted for the APR15 Meeting of The American Physical Society

W Boson Mass Measurement with D0 Data MICHELLE BROCHMANN¹, University of Washington, DZERO COLLABORATION — We present a measurement of the W boson mass using D0 Run II data collected from proton and anti-proton collisions produced by the Tevatron at 1.96 TeV center of mass energy. We select $W \rightarrow e\nu$ events and use a template method to extract the W boson mass from the distributions of the electron transverse momentum, missing transverse energy as a proxy for the transverse momentum of the neutrino, and the transverse mass of the $e\nu$ system. A sample of Z boson events is used for calibration and the analysis is blinded. Analysis methodology and status will be discussed.

¹Presenting on behalf of the D0 Collaboration

Rick Van Kooten Indiana University

Date submitted: 08 Jan 2015

Electronic form version 1.4