Contribution ID: **51** Type: **not specified**

Precision Measurements of Electroweak Parameters with Z Bosons at the Tevatron

Tuesday, 31 May 2016 18:10 (20 minutes)

Summary

The extraction of sin2?_eff(MZ) and an indirect measurement of the mass of the W boson from the forward-backward asymmetry of dilepton events in the Z boson mass region at the Tevatron are presented. The data sample of e+e?events collected by the D0 detector corresponds to the full 9.4 fb?1 run II sample, yielding an effective electroweak mixing angle sin2?_eff(MZ)=0.23146±0.00047. The CDF collaboration uses data samples of e+e? and ?+?? events, corresponding to the full 9.4 fb?1 run II sample to obtain an effective electroweak mixing angle sin2?_eff(MZ)=0.23222±0.00046. The CDF collaboration also extracts the on-shell electroweak mixing angle sin2?W=0.22401±0.00044 which corresponds to an indirect measurement of the W boson mass MW(indirect)=80.327±0.023GeV. The quoted uncertainties include both statistical and systematic contributions.

Presenter: BERNARDI, Gregorio (LPNHE-Paris CNRS/IN2P3)

Session Classification: EW + Top + Higgs