25th International Workshop on Deep Inelastic Scattering and Related Topics



Contribution ID: 362

Type: not specified

Tevatron Combination of Effective Weak Angle Measurements in Drell-Yan Di-electron and Di-muon Channels at CDF and D0, and Review of Direct and Indirect W Mass Measurements

Thursday 6 April 2017 09:00 (25 minutes)

We present the effective weak angle measurements from the CDF and D0¬ experiments at Fermilab. We combine the most precise published results based on the forward-backward asymmetry of $p\bar{p} \rightarrow Z/\gamma^* \rightarrow e^+e^-/\mu^+\mu^- + X$ events in the full Run II data set corresponding to up to $10fb^{-1}$ of luminosity. We use the extracted values of $\sin^2 \theta_{eff}^{lept}$ with an on-shell renormalization scheme in a standard model context to make indirect measurements of $\sin^2 \theta_W$ and m_W . We also review direct measurements of m_W at the Tevatron and discuss the relative precision of the direct and indirect measurements.

Primary authors: QUINN, Breese (University of Mississippi); BERTRAM, Iain (Lancaster University (GB))

Presenter: BERTRAM, Iain (Lancaster University (GB))

Session Classification: WG4 Hadronic and Electroweak Observables

Track Classification: WG4) Hadronic and Electroweak Observables