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## Measurements of W charge asymmetry (20+10min)

Wednesday 2 September 2015 16:30 (30 minutes)

We present W boson and lepton charge asymmetry measurements from W decays in the electron channel, with 9.7 fb  $^{-1}$  of RunII data collected by the D0 detector at the Fermilab Tevatron Collider. The electron charge asymmetry is presented as a function of the electron transverse momentum and pseudo-rapidity out to  $|\eta| \leq 3.2$ ; we also give the W charge asymmetry as a function of W boson rapidity. The asymmetries are compared with next-to-leading order perturbative quantum chromodynamics calculations. These charge asymmetry measurements will allow more accurate determinations of the proton parton distribution functions.

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