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Top Quark Physics and Precision Electroweak Measurements at the Tevatron

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Studies of the properties and production of the top quark and of the W and Z gauge bosons provide several important tests of the standard model of particle physics. We present recent measurements by the D0 and CDF experiments at the Fermilab Tevatron of the production of the top quark in ppbar collisions at 1.96 TeV. We also describe new measurements of the top quark mass and other properties such as spin correlations and the forward-backward asymmetry in ttbar production. Precise measurements of the W and Z bosons include those of the W boson mass, production of gauge boson pairs, and the dilepton forward-backward asymmetry and p_T in Z boson events. We present updates to several of these studies. We also update the combined Tevatron constraints on the standard model Higgs boson mass arising from these measurements.