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Angular Coefficients Measurement of Drell-Yan Dielectron Pairs at CDF JIYEON HAN, Rochester University, CDF COLLABORATION — We report on the measurement of the angular distributions of final state electrons in $p\bar{p} \to \gamma^*/Z \to e^+e$ events produced in the Z boson region mass range of 66 to 116 GeV/c2 from 2.1 fb^{-1} of proton anti-proton collisions at $\sqrt{s} = 1.96$ TeV taken by the CDF detector at Fermilab. The transverse momentum (P_T) dependent angular coefficients A0, A2, A3, and A4 are compared with several predictions based on Quantum Chromodymnamics (QCD). The P_T dependence of A0 and A2 is in agreement with the predictions of perturbative QCD and shows that the production of Z bosons at large P_T proceeds via a combination of the quark-antiquark annihilation and the quark-gluon Compton processes. We find a good agreement with the Lam-Tung relation (A0 = A2), which implies that the spin of the gluon is 1.

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