

Abstract Submitted
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Measurement of the helicity of W bosons in top quark decays

AMITABHA DAS, University of Arizona — We report on a model-independent measurement of the helicity of W bosons produced in top quark decays based on a 5/fb sample of top quark pair events, collected by the D0 detector at Fermilab, colliding protons and anti-protons at the center of mass energy of 1.96 TeV, in the dilepton and lepton+jets channels. In the standard model, the fraction of longitudinal (right-handed) W bosons is predicted to be 0.7 (0). The deviation from these values would be a clear sign of new physics. The measurement is based upon the angle between the momenta of the down-type fermion and the top quark in the W boson rest frame.

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