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Measurement of the helicity fractions of W bosons in $t\bar{t}$ production in dilepton channel at CDF CHANG-SEONG MOON, Seoul National University, Korea, CDF COLLABORATION — We present a measurement of the helicity fractions of W bosons in the $t\bar{t}$ candidate events selected from final states where both W bosons are decaying leptonically. The analysis is based on 5 fb^{-1} of data collected by the CDF detector at the Fermilab Tevatron in $p\bar{p}$ collisions at $\sqrt{s} = 1.96 \text{ TeV}$. The helicity fractions are determined by a comparison of the $\cos\theta^*$ distribution between the momentum of the charged lepton in the W boson rest frame and the W momentum in top-quark rest frame with templates corresponding to left-handed, right-handed and longitudinally polarized fractions exclusively. This is the first measurement of the W boson helicity fractions in the dilepton channel using kinematic reconstruction at CDF.

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Maria Sorin
vsorin@fnal.gov
IFAE-Barcelona

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