Measurement of the $W$ Boson Helicity in Top Quark Decay at DØ

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We report on a measurement of the fraction of right-handed $W$ bosons in top quark decay. In the standard model, this fraction is too small to measure with the current data sample, so a nonzero value would be a clear sign of new physics. The measurement uses $t\bar{t}$ events in both the lepton+jets and dilepton decay channels, and is based upon the helicity angle $\theta^*$ between the charged lepton and top quark directions in the $W$ boson rest frame.

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