

## Measurement of the front back asymmetry in top-antitop quark pairs at CDF

A method of reconstructing  $t\text{-}\bar{t}$  events in the lepton plus jets mode is applied to a measurement of the forward backward asymmetry in  $t\text{-}\bar{t}$  pair production at CDF. The measurement is a test of discrete symmetries in  $t\text{-}\bar{t}$  production and strong interactions at large  $Q^2$ . In the present data set it is potentially sensitive to the presence of parity-violating production channels such as a massive  $Z'$ -like boson or new physics within strong interactions. We present a measurement of the top quark forward-backward asymmetry in two complementary rest frames: the proton anti-proton frame and the top anti-top frame.

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