

Measurement of the Forward Backward Asymmetry in Top Production at CDF

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In elementary particle physics, symmetry is fundamental to the theories we use to describe the world in which we live. A discrepancy in a symmetry predicted by the standard model can perhaps point to new types of physics, to an anomaly in the data, or it can demonstrate that current theories need revision. Since 2006, scientists at CDF and D0 have been studying the forward backward asymmetry in top quark pair production as a test of discrete symmetries of the strong interaction. Recent CDF results indicate that this production asymmetry is larger than expected by the standard model, and that the asymmetry is dependent on the mass of the top antitop system. This talk will present an update of this study that makes use of the entire available dataset.

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