

Abstract Submitted
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Measurement of Correlations in b Quark Pair Production at the Tevatron JASON GALYARDT, Carnegie Mellon University, CDF COLLABORATION — We present an analysis of $b\bar{b}$ pair production correlations, using dimuon-triggered data collected with the Collider Detector at Fermilab in $p\bar{p}$ collisions at $\sqrt{s}=1.96$ TeV during Run II of the Tevatron. The leading order (LO) and next-to-leading order (NLO) b quark production processes are discriminated by the angular and momentum correlations between the $b\bar{b}$ pair. Track-level jets containing a muon are classified by b quark content and used to estimate the momentum vector of the progenitor b quark. The theoretical distributions given by the MC@NLO event generator are tested against the data, and the ratio of LO to NLO processes as a function of \hat{s} is measured.

Manfred Paulini
Carnegie Mellon University

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