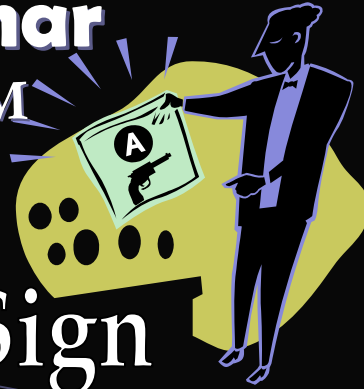


CU Physics Department Particle Seminar

Wednesday, September 22, 2010 705 Pupin Hall 1:00 PM



Evidence for an Anomalous Same-Sign Dimuon Charge Asymmetry

The D0 Collaboration has recently measured the charge asymmetry of same-sign dimuon events in 6.1 fb^{-1} of data collected in proton-antiproton collisions at the Fermilab Tevatron collider. This allows the extraction of the same-sign dimuon charge asymmetry in semileptonic b-hadron decays, which is predicted to be extremely small in the standard model. The result is found to differ by 3.2 standard deviations from the standard model value, providing the first evidence for anomalous CP-violation in the mixing of neutral B mesons. The analysis, and the method used to extract the result will be described in detail.



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