

LEPP JOURNAL CLUB

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New Measurements of Upsilon Polarization at CDF

The CDF experiment at the Fermilab Tevatron has recently provided new measurements of the angular distributions of muons produced in the decays of Upsilon mesons, from which the Upsilon production polarization can be inferred. For many years, polarization measurements have been regarded as important tests of several formulations of QCD that are able to explain the unexpectedly large quarkonium production cross sections observed at hadron colliders, but which predict very different behavior for quarkonium polarization. The new CDF measurement is the first to fully characterize the three-dimensional angular distributions of muons from Upsilon decays and is the first to study angular distributions of muons from decays of the Upsilon(3S) meson. These results open a new chapter in the long and puzzling history of quarkonium production in hadron collisions.

Friday

May 4, 4:00pm

301 Physical Sciences Building

(Refreshments, 3:45pm)

