# CDF seeks massive particle that could top the Top quark

October 24 2005

Scientists at DOE's Fermilab are testing for the existence of a new particle up to five times more massive than the top quark.

With data collected from the CDF detector at Fermilab's Tevatron, a University of Florida group searched for the particle by reconstructing the invariant mass of top quark pairs and looking for a peak in the mass spectrum.

Results hinted at a peak at about 500 GeV and analysis indicated that it was consistent with an extra 30 percent contribution from resonance to the top pair production cross section.

Scientists are collecting more data for the analysis to find out if the hypothesis of the new particle holds up.

Source: DOE Pulse (Kendra Snyder)