

Abstract Submitted  
for the APR10 Meeting of  
The American Physical Society

**Search for Hadronic Resonances in Multijet Final States** TIM LOU, EVA HALKIADAKIS, DEAN HIDAS, AMITABH LATH, Rutgers University — We describe an analysis to search for a new hadronic resonance using the CDF detector at Fermilab. Although the search is intended to be model independent, we model the signal using R-parity violating supersymmetry with gluino pair production in a six jet final state. We make use of final state correlations and create an ensemble of jet combinations to distinguish the signal from the multi-jet QCD backgrounds. We also apply this technique to “search” for top quark pairs in the all hadronic channel. Successfully applying this method on a known process such as top provides a convincing demonstration of the method, as well as a control sample for our heavy resonance search.

Thomas Wright  
University of Michigan

Date submitted: 23 Oct 2009

Electronic form version 1.4