

Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Measurement of the Top Quark Mass using Events with a MET+Jets Signature JIAN TANG, University of Chicago, CDF COLLABORATION — A top quark mass measurement using the so-called “MET+Jets” events are presented. The events used are triggered by the MULTIJET trigger and have significant missing Et. After a set of clean-up cuts, the events that pass the selection mainly have the signature of “lepton + jets” channel of $t\bar{t}$ events but either have one lepton escaping undetected or have a lepton that doesn’t pass the usual cuts of tight lepton or loose muon, which makes these events “orthogonal” to the usual high-Pt-lepton triggered events in the $t\bar{t}$ “lepton + jets” channel and its “all-hadronic” channel. A template method is used for this analysis which compares the data events with a set of Monte Carlo simulated samples using 3-dimensional kernel density estimation (KDE) technique, and a maximum-log-likelihood method is used for fitting the final top quark mass. This is the first time these events are used in top quark mass measurement of CDF Run II and we see comparable number of events of this final state compared to the usual “lepton + jets” channel. This analysis will give complementary and independent result to the CDF top quark mass measurements.

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Date submitted: 14 Jan 2011

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