

Abstract Submitted  
for the APR05 Meeting of  
The American Physical Society

**Top mass measurement in the lepton plus jets channel at CDF with a multivariate method** JOHN FREEMAN, University of California Berkeley  
— We present a preliminary measurement of the top quark mass using the Run II data collected with the CDF detector at Fermilab. The  $t\bar{t}$  events produced in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.96$  TeV are reconstructed in the lepton+jets channel. Using a matrix element integration and transfer functions derived from Monte Carlo to connect jets to partons, we calculate a likelihood for each event to be a top candidate at several possible top masses. Taking into account the presence of background and using additional kinematic variables, we estimate a value for the top mass.

Thomson Evelyn  
University of Pennsylvania

Date submitted: 14 Jan 2005

Electronic form version 1.4