

Abstract Submitted  
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**The Top Quark Width at the CDF Experiment** SATOMI SHIRAISHI, University of Chicago — We study a measurement of the total width of the top quark, thus the top quark lifetime, from  $p\bar{p}$  collisions recorded at the CDF experiment in Run II of the Fermilab Tevatron. In each  $t\bar{t}$  event in the lepton+jets final state, the reconstructed top quark invariant mass is determined by minimizing a  $\chi^2$  for the overconstrained kinematic system, and the reconstructed mass distribution is formed for the selected event sample. The top quark width is extracted by fitting the reconstructed mass distribution to a template function which incorporates top quark events and expected backgrounds, and varies with the top quark width.

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