

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Measurement of the Lifetime of the B_c^\pm Meson Using Semileptonic Decays MARK HARTZ, University of Pittsburgh, CDF COLLABORATION — We report on a measurement of the lifetime of the B_c^\pm meson using the semileptonic decay modes $B_c^\pm \rightarrow J/\psi \ell^\pm X$ with $J/\psi \rightarrow \mu^+ \mu^-$. The measurement utilizes 1 fb^{-1} of data collected with the CDF II detector during Run II of the Fermilab Tevatron in $p\bar{p}$ collisions at $\sqrt{s} = 1.96 \text{ TeV}$. The measurement combines the $J/\psi \mu^\pm$ and $J/\psi e^\pm$ final states in a single framework to increase the statistical reach of the data while minimizing systematic differences between the two final states.

Manfred Paulini
Carnegie Mellon University

Date submitted: 11 Jan 2008

Electronic form version 1.4