

Abstract Submitted
for the APR09 Meeting of
The American Physical Society

Search for B_c Mesons Using the $B_c \rightarrow B_s^0 X$ Decay Channel at CDF EDWIN ROGERS, University of Illinois, Urbana-Champaign, CDF COLLABORATION — To date, the B_c meson has only been observed in $B_c \rightarrow J/\psi \pi$ and $J/\psi \ell X$ final states, while the dominant decay modes are expected to be in the $B_c \rightarrow B_s^0 X$ channel. We present the results of a first search for the B_c meson through $B_c \rightarrow B_s^0 X$. The measurement uses 3 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 analysis is based on a neural network selection and combines the B_s^0 decay modes into $J/\psi\phi$, $D_s^\pm\pi$, and $D_s^\pm 3\pi$.

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Date submitted: 08 Jan 2009

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