

Abstract Submitted
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A study of the decay $\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^- \pi^+ \pi^-$ at CDF BRIANNA SCHUYLER, Johns Hopkins, CDF COLLABORATION — Using $\sim 360 \text{ pb}^{-1}$ of Run II data collected by the CDF detector, we search for the decay $\Lambda_b^0 \rightarrow \Lambda_c^+ \pi^- \pi^+ \pi^-$, in $p\bar{p}$ collisions at $\sqrt{s} = 1.96 \text{ TeV}$, where Λ_c baryon is reconstructed as $\Lambda_c^+ \rightarrow p^+ K^- \pi^+$. This decay mode is plagued by a substantial combinatorial background arising from a large track multiplicity characteristic of hadronic environment. We investigate ways of suppressing the combinatorial background in order to extract the Λ_b signal.

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