

Abstract Submitted
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Study of the Σ_b Baryon with the CDF Detector CONSTANTINO CALANCHA, CIEMAT, Madrid, CDF COLLABORATION — We present a measurement of properties of the Σ_b baryon in proton-antiproton collisions at a center-of-mass energy of 1.96 TeV. Using 2.9 fb^{-1} of data collected with the CDF II detector, we observe four $\Lambda_b \pi$ resonances in the fully reconstructed decay mode $\Lambda_b \rightarrow J/\psi \Lambda$ with $J/\psi \rightarrow \mu^+ \mu^-$ and $\Lambda \rightarrow p\pi$. In addition, we combine the selected Λ_b signal from $\Lambda_b \rightarrow J/\psi \Lambda$ with events from the $\Lambda_b \rightarrow \Lambda_c \pi$ decay mode, with $\Lambda_c \rightarrow pK\pi$, to measure the Λ_b polarization.

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