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Measurement of the Λ_b lifetime in $p\bar{p}$ Collisions at $\sqrt{s} = 1.96$ TeV
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The lifetime of the Λ_b baryon is presently the most interesting of all b -hadron lifetimes, and at the same time the least well known experimentally. We study the lifetime of the Λ_b baryon using $\Lambda_b \rightarrow_c^+ \pi^+$ decay mode in 360 pb⁻¹ of CDF data. Our $\Lambda_b \rightarrow_c^+ \pi^+$ sample has in excess of 1400 events and is the largest sample of Λ_b decays in existence. We study the effects of the trigger bias and the presence of physics backgrounds on the measurement of the lifetime of Λ_b .

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