

Observation of the Doubly Strange Ω_{cb} Baryon Ω_{cb} with the D0 Detector

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We report the first observation of the doubly strange b baryon Ω_{cb} in the decay channel $\Omega_{cb} \rightarrow J/\psi \Omega_{cb}$, with $J/\psi \rightarrow \mu^+ \mu^-$ and $\Omega_{cb} \rightarrow \Lambda K^- \rightarrow (p \pi^-) K^-$ in $p\bar{p}$ collisions at $\sqrt{s} = 1.96$ TeV. Using approximately 1.3 fb^{-1} of data collected with the D0 detector at the Fermilab Tevatron Collider, we observe a signal with 5.4σ .

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