

## Observation of the Doubly Strange $\Omega_{cb}$ Baryon $\Omega_{cb}$ with the D0 Detector

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We report the first observation of the doubly strange  $b$  baryon  $\Omega_{cb}$  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  $1.3 \text{ fb}^{-1}$  of data collected with the D0 detector at the Fermilab Tevatron Collider, we observe a signal with  $5.4 \sigma$ .

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