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Title: Measurement of the decays $\Lambda c \rightarrow \Sigma \pi \pi$ at Belle

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Authors: Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.)

Keywords: Measurement

Λc→Σππ Belle decays

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Citation: Physical Review D, 98(11).

Abstract: We report measurements of the branching fractions of the decays $\Lambda + c \rightarrow \Sigma + \pi - \pi +$, $\Lambda + c \rightarrow \Sigma 0\pi + \pi 0$

and $\Lambda + c \rightarrow \Sigma + \pi 0\pi 0$ relative to the reference channel $\Lambda + c \rightarrow pK - \pi +$. The analysis is based on the full data sample collected at and near the Y(4S) resonance by the Belle detector at the KEKB asymmetric-energy e+e- collider, corresponding to an integrated luminosity of 711 fb-1. We measure $B(\Lambda + c \rightarrow \Sigma + \pi - \pi +)/B(\Lambda + c \rightarrow pK - \pi +) = 0.719 \pm 0.003 \pm 0.024$,

 $B(\Lambda + c {\to} \Sigma 0 \pi + \pi 0)/B(\Lambda + c {\to} pK - \pi +) {=} 0.575 {\pm} 0.005 {\pm} 0.036$ and

 $B(\Lambda + c \rightarrow \Sigma + \pi 0\pi 0)/B(\Lambda + c \rightarrow pK - \pi +) = 0.247 \pm 0.006 \pm 0.019. \ The \ listed \ uncertainties \ are \ statistical \ and$

systematic, respectively.

Description: Only IISERM authors are available in the record.

URI: https://journals.aps.org/prd/abstract/10.1103/PhysRevD.98.112006

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