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Title:	Observation of $B^+ \rightarrow p^- \Lambda K^-$ and $B^+ \rightarrow p^- \Lambda K^+$
Authors:	Bhardwaj, V. (/jspui/browse?type=author&value=Bhardwaj%2C+V.)
Keywords:	Belle detector Conjugation Evidence
Issue Date:	2019
Publisher:	American Physical Society
Citation:	Physical Review D,99(3).
Abstract:	We report the study of $B^+ \rightarrow p^- \Lambda K^-$ and $B^+ \rightarrow p^- \Lambda K^+$ decays using a 772×106 $B^- \bar{B}$ pair data sample recorded on the $Y(4S)$ resonance with the Belle detector at KEKB. The following branching fractions are measured: $B(B^+ \rightarrow p^- \Lambda K^-) = (4.10 \pm 0.45 - 0.43 \pm 0.50) \times 10^{-6}$, $B(B^+ \rightarrow p^- \Lambda K^+) = (3.70 \pm 0.39 - 0.37 \pm 0.44) \times 10^{-6}$, $B(\eta_c \rightarrow p^- \Lambda K^- + c.c.) = (2.83 \pm 0.36 - 0.34 \pm 0.35) \times 10^{-3}$ and $B(B^+ \rightarrow p^- \Lambda \phi) = (7.95 \pm 2.09 \pm 0.77) \times 10^{-7}$, where c.c. denotes the corresponding charge-conjugation process. The intermediate resonance decays are excluded in the four-body decay measurements. We also find evidence for $B(\eta_c \rightarrow \Lambda(1520)^- \Lambda + c.c.) = (3.48 \pm 1.48 \pm 0.46) \times 10^{-3}$ and $B(B^+ \rightarrow \Lambda(1520)^- \Lambda K^+) = (2.23 \pm 0.63 \pm 0.25) \times 10^{-6}$. No significant signals are found for $J/\psi \rightarrow \Lambda(1520)^- \Lambda + c.c.$ and $B^+ \rightarrow \Lambda(1520)^- \Lambda K^+$; we set the 90% confidence level upper limits on their decay branching fractions as $< 1.80 \times 10^{-3}$ and $< 2.08 \times 10^{-6}$, respectively.
Description:	Only IISERM authors are available in the record.
URI:	https://journals.aps.org/prd/abstract/10.1103/PhysRevD.99.032003 (https://journals.aps.org/prd/abstract/10.1103/PhysRevD.99.032003) http://hdl.handle.net/123456789/2250 (http://hdl.handle.net/123456789/2250)
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