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| Title:                  | Measurement of the branching fraction of $\Lambda^+c \rightarrow p\omega$ decay at Belle.  |
| Authors:                | Bhardwaj, Vishal (/jspui/browse?type=author&value=Bhardwaj%2C+Vishal)<br>Patra, Sourav (/jspui/browse?type=author&value=Patra%2C+Sourav)   |
| Keywords:               | charmed bayrons<br>lepton colliders  |
| Issue Date:             | 2021   |
| Publisher:              | American Physical Society  |
| Citation:               | Physical Review D, 104(7).   |
| Abstract:               | Using 980.6 fb <sup>-1</sup> of data collected with the Belle detector operating at the KEKB asymmetric-energy e <sup>+</sup> e <sup>-</sup> collider, we present a measurement of the branching fraction of the singly Cabibbo-suppressed decay $\Lambda^+c \rightarrow p\omega$ . A clear $\Lambda^+c$ signal is observed for $\Lambda^+c \rightarrow p\omega$ with a statistical significance of 9.1 standard deviations, and we measure the ratio of branching fractions $\mathcal{B}(\Lambda^+c \rightarrow p\omega)/\mathcal{B}(\Lambda^+c \rightarrow pK-\pi^+\pi^-) \approx 0.12 \pm 0.10 \text{ (stat)} \pm 0.10 \text{ (syst)} \times 10^{-2}$ , from which we infer the branching fraction $\mathcal{B}(\Lambda^+c \rightarrow p\omega) \approx 0.827 \pm 0.75 \text{ (stat)} \pm 0.62 \text{ (syst)} \pm 0.42 \text{ (ref)} \times 10^{-4}$ . The first quoted uncertainty is statistical, the second systematic, and the third from the reference mode $\Lambda^+c \rightarrow pK-\pi^+\pi^-$ . |
| Description:            | Only IISER Mohali authors are available in the record.   |
| URI:                    | <a href="https://doi.org/10.1103/PhysRevD.104.072008">https://doi.org/10.1103/PhysRevD.104.072008</a> ( <a href="https://doi.org/10.1103/PhysRevD.104.072008">https://doi.org/10.1103/PhysRevD.104.072008</a> )<br><a href="http://hdl.handle.net/123456789/5190">http://hdl.handle.net/123456789/5190</a> ( <a href="http://hdl.handle.net/123456789/5190">http://hdl.handle.net/123456789/5190</a> )   |
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