

Λ_c^+ physics with BESIII threshold data

Saturday, July 7, 2018 9:20 AM (20 minutes)

The BESIII detector accumulated 567 pb^{-1} of data at the center-of-mass energy of 4.6 GeV, which is the world's largest e^+e^- sample at the Λ_c pair threshold. By analyzing this data sample, we report the determinations of the absolute branching fractions of the semi-leptonic decays of $\Lambda_c^+ \rightarrow \Lambda e^+\nu$ and $\Lambda\mu^+\nu$, the hadronic decays of $\Lambda_c^+ \rightarrow pK_s, pK^- \pi^+, pK_s \pi^0, pK_s \pi^+ \pi^-, \Lambda\pi^+, \Lambda\pi^+ \pi^0, \Lambda\pi^+ \pi^+ \pi^-, pK^- \pi^+ \pi^0, \Sigma^0 \pi^+, \Sigma^+ \pi^0, \Sigma^+ \pi^+ \pi^-, \Sigma^+ \omega, nK_s \pi^+, p\pi^+ \pi^-, p$ and $\Sigma^- \pi^+ \pi^+ \pi^0$, as well as the inclusive Λ and electron decays. The accuracies of the absolute branching fractions for most decays are improved significantly compared to the previous measurements. We will also report cross section measurement of $e^+e^- \rightarrow \Lambda_c^+ \Lambda_c^-$ near threshold at BESIII.

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Session Classification: Quark and Lepton Flavor Physics