

715th ASRC Seminar

Date: 13:30 ~ Fri., April 13

Location: 302 Meeting Room, ASRC Bldg.

Speaker: Mr. Manfred Berger
(Stefan Meyer Institute, Austrian Academy of
Science)

Title: $\Lambda_c \rightarrow \pi\pi\Sigma$ decays at Belle

Abstract:

Charmed baryon decays provide crucial information for the study of both strong and weak interactions. The Λ_c , which is the lightest charmed baryon and has a udc quark configuration, plays a key role. The decay $\Lambda_c^+ \rightarrow \Sigma\pi\pi$ is particularly interesting as it has been proposed as a possible avenue to extract the Σ - π scattering length [1], and this measurement would provide crucial information in the study of the $\Lambda(1405)$ resonance [2].

Pursuing this approach at the Belle experiment leads to a high purity data sample of $\Lambda_c^+ \rightarrow \Sigma^+\pi^-\pi^+$, $\Lambda_c^+ \rightarrow \Sigma^0\pi^+\pi^0$ and $\Lambda_c^+ \rightarrow \Sigma^+\pi^0\pi^0$ decay modes, allowing both a measurement of branching ratios relative to $\Lambda_c^+ \rightarrow p\bar{K}^-\pi^+$ and a direct measurement of intermediate resonances.

In this talk I will present the results obtained for the Λ_c^+ branching ratios and summarize the current status of the ongoing analysis of the intermediate resonances, occurring in these channels.

なお、今回のセミナーは、第71回「原子核ハドロン物理セミナー」
を兼ねております。セミナー内容は
http://silver.j-parc.jp/hadron/hadron_seminar/index.html
でご覧になれます。

<Contact>

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