

Charm physics at Belle and Belle II

The Belle and Belle II experiments have collected a 1.6 ab^{-1} sample of e^+e^- collision data at centre-of-mass energies near the $\Upsilon(nS)$ resonances. These samples contain a large number of $e^+e^- \rightarrow c\bar{c}$ events that produce charmed mesons. We present measurements of charm-mixing parameters from flavour-tagged $D^0 \rightarrow K_S^0 \pi^+ \pi^-$ decays. Direct CP violation is searched for in $D^0 \rightarrow K_S^0 K_S^0$ decays and D meson decays to two or three pions. In addition, we present searches for rare flavour-changing neutral current processes and measure several radiative decays of the $D_{(s)}$ meson. Further, we study several decays of the Ξ_c baryon to determine branching fractions, CP asymmetries and decay asymmetries.

Author: ROBERTSON, Steven (IPP / University of Alberta)

Presenter: ROBERTSON, Steven (IPP / University of Alberta)