

Studies of radiative and electroweak penguin decays of B mesons at Belle and Belle II

Tuesday 15 October 2024 18:15 (15 minutes)

The Belle and Belle II experiments have collected a 1.1 ab^{-1} sample of $e^+e^- \rightarrow B\bar{B}$ collisions at the $\Upsilon(4S)$ resonance. These data, with low particle multiplicity and constrained initial state kinematics, are an ideal environment to search for rare B meson decays proceeding via electroweak and radiative penguin processes. Results include those of the decay $B \rightarrow K^+\nu\bar{\nu}$ using an inclusive tagging technique. We also present results on radiative decays $B^0 \rightarrow \gamma\gamma$, $B \rightarrow \rho\gamma$ and $B \rightarrow K^*\gamma$. CP and isospin asymmetries are presented for the latter two decays. We also present results from decays related to $b \rightarrow s\ell^+\ell^-$ and $b \rightarrow d\ell^+\ell^-$ transitions, where ℓ is an electron or muon.

Track type

Flavour Physics

Author: MASLOVA, Nadiia (HEPHY)

Presenter: MASLOVA, Nadiia (HEPHY)

Session Classification: Parallel - Flavour