

# Charmless B decays at Belle II

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Charmless  $B$  decays provide a unique portion of the Belle II program. The expected large signal yields with moderate backgrounds associated with efficient reconstruction of neutral particles enable world-leading determination of the CKM phase  $\alpha/\phi_2$ , a conclusive understanding of the so-called  $K$ - $\pi$  CP puzzle, and further insight into the nature of localized CP violation in three-body decays. We report preliminary measurements based on the sample collected during 2019-2020 operations and corresponding to  $65 \text{ fb}^{-1}$  of integrated luminosity. Results include a test of the  $K\pi$  isospin sum-rule, an angular analysis of  $B \rightarrow \rho^+ \rho^0$  decays, and the reconstruction of a  $B^0 \rightarrow \pi^0 \pi^0$  signal.

## Collaboration

Belle II

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