

# BEACH 2024: XV International Conference on Beauty, Charm, Hyperons in Hadronic Interactions

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## B-physics results from Belle and Belle II

*Tuesday, 4 June 2024 09:00 (30 minutes)*

The Belle II experiment has collected a  $424 \text{ fb}^{-1}$  sample of  $e^+e^-$  collisions produced by the asymmetric SuperKEKB collider. Ninety percent of the sample is at the  $\Upsilon(4S)$  resonance, which decays to  $B$ -meson pairs. The predecessor experiment, Belle, collected nearly  $1 \text{ ab}^{-1}$  of data from 1999-2010, three-quarters of which was at the  $\Upsilon(4S)$ . From these  $\Upsilon(4S)$  data, we have made measurements of rare  $B$  decays and  $CP$  violation, as well as searched for lepton-universality violation. Highlights include the first observation of  $B \rightarrow K\nu\bar{\nu}$  and measurements of lepton-universality in semitauonic  $B$  decays.

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