QNP2024 - The 10th International Conference on Quarks and Nuclear Physics



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## Studies of hadron spectroscopy at Belle and Belle II

Wednesday, 10 July 2024 15:40 (20 minutes)

The Belle and Belle II experiments have collected a  $1.4~{\rm ab}^{-1}$  sample of  $e^+e^-$  collision data at centre-of-mass energies near the  $\Upsilon(nS)$  resonances. These data include a 19.2 fb<sup>-1</sup> sample collected near the  $\Upsilon(10753)$  resonance to probe its potentially exotic nature. We present several results related to the following processes:  $e^+e^- \to \Upsilon(nS)\eta, e^+e^- \to \gamma X_b(\chi_{bJ}\pi^+\pi^-), e^+e^- \to h_b(1P)\eta$  and  $e^+e^- \to \chi_{bJ}(1P)\omega$ . The last analysis also includes data samples collected by Belle at similar centre-of-mass energies. In addition, we present Belle measurements of the  $B^0$  and  $B^+$  meson mass difference, a pentaquark search in  $\Upsilon(1S)$  and  $\Upsilon(2S)$  decays, as well as studies of  $h_b(2P)$  decays to the  $\eta \Upsilon(1S)$  and  $\chi_{bJ} \gamma$  final states.

## session

A. Facilities and Detectors

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Session Classification: B. Hadron Spectroscopy