

# Phenomenology 2022 Symposium: From Virtual to Real



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## Recent results from Belle II

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The Belle II experiment at the SuperKEKB energy-asymmetric  $e^+e^-$  collider is a substantial upgrade of the B factory facility at the Japanese KEK laboratory. The design luminosity of the machine is  $6 \times 10^{35} \text{ cm}^{-2}\text{s}^{-1}$  and the Belle II experiment aims to ultimately record  $50 \text{ ab}^{-1}$  of data, a factor of 50 more than its predecessor. With this data set, Belle II will be able to measure the Cabibbo-Kobayashi-Maskawa (CKM) matrix, the matrix elements and their phases, with unprecedented precision and explore flavor physics with  $B$  and charmed mesons, and  $\tau$  leptons. Belle II has also a unique capability to search for low mass dark matter and low mass mediators. We also expect exciting results in quarkonium physics with Belle II. In this presentation, we will review the latest results from Belle II.

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