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Recent results and future prospects from the Belle II experiment

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The Belle and Belle II experiments have collected a combined sample of 1.2 ab^{-1} of $e^+e^- \to B\overline{B}$ collisions at a centre-of-mass energy corresponding to the $\Upsilon(4S)$ resonances. These data, with low particle multiplicity and constrained initial state kinematics, are an ideal environment for studying the properties of bottom mesons, such as semileptonic and rare electroweak penguin decays to final states with missing energy from neutrinos, and search for dark sector particles in the mass range from a few MeV to 10 GeV. In addition, the boost provided by the asymmetric SuperKEKB collider allows to perform measurements of time-dependent CP violation. These samples also contain a large number of $e^+e^- \to c\bar{c}$ and $e^+e^- \to \tau^+\tau^-$ pairs, which are used to study the properties of charm hadrons and tau leptons. In this talk we will present recent results and future prospects from several areas of the Belle II physics program.

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