

Belle II

Friday 14 November 2025 14:20 (20 minutes)

The Belle and Belle II experiments have collected samples of e^+e^- collision data at and near the centre-of-mass energies near the $Y(nS)$ resonances. These data have constrained kinematics and low multiplicity, which allow searches for dark sector particles in the mass range from a few MeV to 10 GeV. Using samples of up to 711 fb $^{-1}$ collected by Belle and 365 fb $^{-1}$ collected by Belle II at the $Y(4S)$, we have performed searches of ALPs decaying to two photons and tau leptons; long-lived ALPs in bottom to strange quark transitions; and ALPs produced in bottom mesons decaying to two photons or invisible final states. We will present recent highlights from several ALPs and dark matter searches at Belle and Belle II.

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Session Classification: Parallel session - Experiments II