

The Belle II Experiment

The Belle II experiment at the asymmetric e^+e^- SuperKEKB collider is a major upgrade of the Belle experiment, which ran at the KEKB collider at the KEK laboratory in Japan. The design luminosity of SuperKEKB is $8 \times 10^{35} \text{ cm}^{-2} \text{ s}^{-1}$, which is about 40 times higher than that of KEKB. The expected integrated luminosity of Belle II is 50 ab^{-1} in five years of running. The experiment will focus on searches for new physics beyond the Standard Model via high precision measurements of heavy flavor decays, and searches for rare signals. To reach these goals, the accelerator, detector, electronics, software, and computing systems are all being substantially upgraded. In this talk we present the status of the accelerator and Belle II detector upgrades, as well as the expected sensitivity to new physics of the Belle II data set.

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