

From B physics to super B physics: Status and prospects of the Belle II project

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The main goal of the Belle Experiment at the B factory KEKB in Japan was to check whether the Standard Model with the CKM mechanism provides a correct description of CP violation. The next generation of B factories, the "Super B factories", aims to look for departures from the Standard Model. High precision measurements in flavor physics are an essential complement to the direct searches for new physics at the LHC.

The Belle II experiment at the SuperKEKB collider, which will provide about 50 times more data than its predecessor KEKB at luminosities of up to $8 \times 10^{35} \text{ cm}^{-2} \text{ s}^{-1}$, has been designed to perform such measurements.

In this talk, I will give an overview of the physics plans for Belle II and the status of the ongoing collider and detector upgrades.