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The Belle II experiment at SuperKEKB: Importance for the European Particle Physics Institutions

The Belle detector at the KEKB electron-positron collider has collected approximately 800 million Y(4S) events in its decade of operation. Many of the existing measurements have statistical uncertainties still higher than their systematics.
More statistics would then bring a substantial improvement in the accuracy.
However further increase of the luminosity at the same rate as now would not lead to significant reduction of uncertainties.
The Japanese national accelerator laboratory KEK has therefore started tu build Super-KEKB, an upgrade of KEKB to increase the luminosity by two orders of magnitude during a four-year shutdown, with an ultimate goal of 8E35/cm2/s luminosity.
To exploit the increased luminosity, an upgrade of the Belle detector is under construction by new international collaboration Belle II. The document presents physics motivation, basic methods of the accelerator upgrade, as well as key improvements of the detector.
The experiment will be performed in Japan, but about 40% of the members come from the European institutions. This document presents the participation of them, and also the synergies with other European projects.

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