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## Status of the Belle II experiment and overview of early semi-leptonic and leptonic results

*Wednesday, June 5, 2019 10:45 AM (30 minutes)*

The Belle II experiment, located at SuperKEKB in Tsukuba Japan, collected around 500 pb<sup>-1</sup> during its commissioning run in 2018. After the integration of its vertex detector, the experiment has recently started its first full run in March 2019. The goal of Belle II is to collect data with a target integrated luminosity of the experiment is 50 ab<sup>-1</sup>. The large dataset has a unique capability of reaching high precision in many areas of B physics, specifically leptonic and semileptonic B decays with missing energy. In this talk, we will present an overview of the Belle II experiment and its current status. Results from the 2018 Belle II commissioning run will be shown, including the rediscovery of the B meson using semileptonic decays. In addition, a novel B tagging technique to be used in many Belle II measurements, called the Full Event Interpretation (FEI), will be presented and its performance with early 2018 and 2019 data will be shown. Furthermore, we will also present an overview of the semileptonic B decays that will be measured in the upcoming years at Belle II and discuss prospects for important B-anomalies like R(D) and R(D\*), as well as other tests of lepton flavour universality.

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