

Determination of the CKM matrix elements $|V_{ub}|$ and $|V_{cb}|$ at Belle II

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The Belle II experiment is a substantial upgrade of the Belle detector and will operate at the SuperKEKB energy-asymmetric e^+e^- collider. The accelerator has already successfully completed the first phase of commissioning in 2016 and first electron positron collisions in Belle II are expected for April 2018. The design luminosity of SuperKEKB is $8 \times 10^{35} \text{ cm}^{-2} \text{ s}^{-1}$ and the Belle II experiment aims to record 50 ab^{-1} of data, a factor of 50 more than the Belle experiment. In this presentation we report our prospects for CKM favoured and suppressed semileptonic B meson decays (with a light lepton) and how they can be used to better understand the CKM matrix element magnitudes $|V_{ub}|$ and $|V_{cb}|$.

Primary authors: PERUZZI, Ida (Laboratori Nazionali di Frascati dell'INFN); LUECK, Thomas (INFN - National Institute for Nuclear Physics)

Presenter: LUECK, Thomas (INFN - National Institute for Nuclear Physics)

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