The 33rd International Symposium on Lattice Field Theory (Lattice 2015)



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## Physics at the Belle II experiment and Lattice QCD

Friday, 17 July 2015 11:00 (45 minutes)

In this talk, we discuss the status and future prospect in B physics, focusing on the SuperKEKB/Belle II experiment at KEK, with the target peak luminosity of 8 \times 10^35 cm^-2s^-1. This enables us to study decays of heavy flavor particles, B and D mesons as well as \tau leptons, at the order of  $O(10^{10})$  per year, and to search for New Physics through processes sensitive to presence of virtual heavy particles. We present physics reach, status and plan of the experiment. We also discuss the inputs necessary from lattice QCD calculations, in order to identify effects of New Physics.

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