

Flavor Physics in the Precision Era: Rare Decays, Lepton Universality, and New-Physics Targets

Friday, 17 April 2026 09:40 (30 minutes)

With the steady running of the LHCb and Belle II experiments, as well as the precision achieved from Lattice QCD for non-perturbative hadronic parameters, we are entering the era of precision flavor physics. In this talk, I will introduce the role played by flavor physics in precisely testing the Standard Model and indirectly probing physics beyond it. Then, I will give some examples to illustrate how precision flavor physics helps us to achieve this goal. I will also discuss the lepton universality and its violation indicated by the $R(D)$ and $R(D^*)$ anomalies, the $b \rightarrow s \nu \nu$ decays and their implications for the dark sector, as well as some deviations observed in non-leptonic B decays.

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