

# Flavor Physics and Lattice QCD

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Our ability to resolve new physics effects is, largely, limited by the precision with which we calculate. The calculation of observables in the Standard (or a new physics) Model requires knowledge of the associated hadronic contributions. The precision of such calculations, and therefore our ability to leverage experiment, is typically limited by hadronic uncertainties. The only first-principles method for calculating the nonperturbative, hadronic contributions is lattice QCD. Modern lattice calculations have controlled errors, are systematically improvable, and - in some cases - are pushing the sub-percent level of precision. I'll outline the role lattice plays in flavor physics, highlight state of the art lattice efforts, and discuss the future of lattice calculations.

## APS member ID

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**Primary author:** BOUCHARD, Chris (The Ohio State University)

**Presenter:** BOUCHARD, Chris (The Ohio State University)

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