PHYSTAT-Flavour 2020



Contribution ID: 10

Type: not specified

Global Fits

Wednesday 21 October 2020 16:30 (30 minutes)

Global fits are an indispensable tool in the search for New Physics (NP). On the one hand, they can provide interpretations of measurements that deviate from Standard Model (SM) predictions, and on the other hand, they allow using the wealth of experimental data for testing the viability of NP models. Being "global" means that these fits include hundreds of observables, whose theoretical predictions depend on a large number of nuisance parameters. Furthermore, the number of possible fit parameters in effective fields theories and explicit NP models can be huge. In this talk, I show how global fits are used in phenomenological analyses of flavour physics and other precision tests of the SM, I describe approximations that facilitate working with the large number of nuisance parameters, and I discuss issues and ambiguities related to the large number of possible fit parameters.

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Session Classification: Session 3