

The Importance of Flavor in SMEFT Electroweak Precision Fits

Tuesday 20 June 2023 14:00 (17 minutes)

Effective field theory tools are essential for exploring non-Standard Model physics at the LHC in the absence of the discovery of new light particles. Predictions for observables are typically made at the lowest order in the QCD and electroweak expansions in the Standard Model effective field theory (SMEFT) and often ignore the effects of flavor. In this talk I will present results for electroweak precision observables (EWPOs) at the next-to-leading order QCD and electroweak expansions (NLO) of the SMEFT with an arbitrary flavor structure for the fermion operators. Numerical NLO SMEFT fits to EWPOs have a strong dependence on the assumed flavor structures and I will show this using various popular assumptions for flavor symmetries, including Minimal Flavor Violation (MFV) and $U(3)^5$.

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yes

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