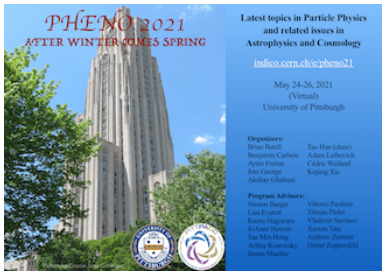

Contribution ID: **1316** Type: **Higgs**

Form Factor Effects in Higgs Couplings

Wednesday 26 May 2021 17:00 (15 minutes)

The presence of heavy new physics generally alters the Standard Model (SM) Higgs couplings predictions. In many models, momentum effects are assumed to decouple as the heavy states are integrated out. However, these effects can be important in situations of significant off-shellness at collider experiments. In this talk, I will discuss the momentum dependence of different beyond the SM scenarios, using form factors to encode the p^2 effect on the Higgs couplings. We show a significant enhancement of order p^2/Λ^2 over the expected v^2/Λ^2 predictions for the BSM scenarios studied. These effects are competitive with the momentum independent coupling modifications, changing the predictions of the models. Additionally, the use of form factors modifies the shapes of the kinematic distributions, providing new opportunities for LHC signals.

Summary

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