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Usefulness of effective field theory in Higgs plus jet production

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The Higgs+jet channel at the LHC is sensitive to the effects of new physics both in the total rate and in the transverse momentum distribution at high p_T . We examine the production process using an effective field theory (EFT) language and discuss the possibility of determining the nature of the underlying high-scale physics from boosted Higgs production. The effects of heavy color triplet scalars and top partner fermions with TeV scale masses are considered as examples and Higgs-gluon couplings of dimension five and dimension seven are included in the EFT.

Oral or Poster Presentation

Oral

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