

Physics Beyond the SMEFT

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Electroweak interactions assign a central role to the gauge group $SU(2)_L \times U(1)_Y$, which is either realized linearly (SMEFT) or nonlinearly (e.g., HEFT) in the effective theory obtained when new physics above the electroweak scale is integrated out. Although the discovery of the Higgs boson has made SMEFT the default assumption, nonlinear realization remains possible.

I will discuss how the two can be distinguished through their predictions for the size of certain low-energy dimension-6 four-fermion operators. Future measurements can therefore tell us if non-SMEFT new physics is really necessary.

Submitted on behalf of a Collaboration?

No

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