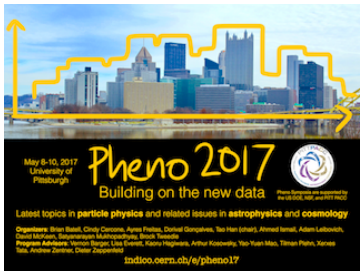

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A global view on Higgs self-coupling

Monday, 8 May 2017 15:45 (15 minutes)

Recently it has been suggested that precision single-Higgs measurements offer an alternative approach to the extraction of the Higgs self coupling with respect the traditional double-Higgs searches. We study how to obtain a parametrically enhanced deviation of the Higgs self-coupling and we estimate how large this deviation can be in a self-consistent EFT framework. We perform a global study on the impact that large deviations on the trilinear might have on the determination of single-Higgs couplings. We advocate that new observables are needed to resolve a degeneracy that appears at large Higgs self-coupling, leading to an interesting interplay between diboson production, single-Higgs data and double Higgs analysis.

Summary

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