

Probing 6D Higgs Operators at Future e^+e^- Colliders

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In an effective theory, the UV physics can be parametrized by a set of higher-dimensional operators. We explore the sensitivity potential at future e^-e^+ colliders to probe six-dimensional operators which may deform Higgs physics at electroweak scale. Different from studies in literature, we (1) analyze the sensitivities of disentangling the single-operator contribution, under the assumption that a deviation from the SM prediction will have been observed in some observable, and (2) take into account correlations among these operators, which may result from either physics at cutoff or renormalization group running of their Wilson coefficients or both. In particular, we compare the sensitivities which might be achieved at future e^-e^+ colliders, such as CEPC, FCC_{ee} and ILC.

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