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EFT analysis of Higgs naturalness & search strategies at a future electron-positron collider (canceled)

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An effective field theory (EFT) approach is used to investigate naturalness of the Higgs sector at scales below $M \sim calO(10)$ TeV. In particular, we obtain the leading 1-loop EFT contributions to the Higgs mass with a Wilsonian-like hard cutoff Λ (i.e., $\Lambda < M$), and determine the constraints on the corresponding operator coefficients for these effects to alleviate the little hierarchy problem up to the scale of the effective action Λ; a condition we denote by "**EFT-naturalness**". We also discuss the specific types of physics that can lead to "**EFT-naturalness**"and their potential signatures at a future e^+e^- collider, e.g., in the production of multiple vector-bosons and/or Higgs-bosons.

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