Contribution ID: 12

Next-to-leading-order corrections to the e+e- \rightarrow hZ process in extended Higgs models

Monday, 28 February 2022 07:00 (20 minutes)

Precision measurements of the properties of the discovered Higgs boson are one of the main programs at current and future collider experiments. At the international linear collider with the center-of-mass energy 250 GeV, $e+e- \rightarrow hZ$ is the dominant Higgs production process, and the cross section would be measured with a few percent accuracies. In this talk, we present the cross section of the $e+e- \rightarrow hZ$ process at full next-to-leading order in various extended Higgs models. In addition, by using the H-COUP program, we analyze the deviations in the cross section times decay branching ratios of the discovered Higgs boson. We discuss the discrimination of extended Higgs models at the future colliders in detail.

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Session Classification: JST-friendly