



Contribution ID: 54

Type: Oral presentation using Zoom

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

*Thursday, 28 October 2021 15:50 (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. This talk is based on arXiv:2109.02884.

### 1st preferred time slot for your oral presentation

19:00-21:00 JST (12:00-14:00 CEST, 6:00-8:00 EDT, 3:00-5:00 PDT)

### 2nd preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

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**Session Classification:** F-3: Higgs properties

**Track Classification:** Parallel sessions: Topical Groups: Session F: Higgs properties