

30th International Symposium on Lepton Photon Interactions at High Energies



Contribution ID: 150

Type: **Poster**

Higgs invisible and rare decays at ILC

Monday, January 10, 2022 4:30 PM (1 minute)

The operation of an e^+e^- collider at a CM energy of 250 GeV will yield a large sample of Higgs bosons that are tagged by recoil against an observed Z boson at a fixed laboratory energy. By selecting these Z bosons and looking on the other side of the event, e^+e^- colliders will be sensitive to essentially all possible rare and exotic Higgs boson decay channels, in most cases down to branching ratios of order 10^{-4} . This includes channels important for theories beyond the Standard Model such as $H \rightarrow b \bar{b} + (\text{missing energy})$ and $H \rightarrow b \bar{s}$ that are very difficult to observe at the LHC. This talk will review the expectations for the discovery of new decay modes of the Higgs boson at the International Linear Collider.

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Session Classification: Future experiments and facilities

Track Classification: Future experiments and facilities