



Contribution ID: 466

Type: **Parallel session talk**

## Higgs invisible and rare decays at ILC

*Thursday, 29 July 2021 10:04 (17 minutes)*

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.

### First author

Alain Bellerive

### Email

alainb@physics.carleton.ca

### Collaboration / Activity

ILC IDT WG3

**Primary author:** POTTER, Chris (University of Oregon)

**Presenter:** POTTER, Chris (University of Oregon)

**Session Classification:** T09: Higgs Physics

**Track Classification:** Higgs Physics