



Contribution ID: 83

Type: Oral presentation using Zoom

## Exploring Right Handed Neutrinos at ILC

*Wednesday, 27 October 2021 13:20 (20 minutes)*

We study search for Right Handed Neutrino at ILC. The process we focus on is the  $Z'$  boson mediated Right Handed neutrino (RHN) pair production process. The advantage of RHN pair production process is background free process. In final state, RHN pair production shows the same sign leptons.

We generated this process, investigate event properties, develop reconstruction and selection strategies and evaluate the sensitivity at ILC. In our study, we use the Delphes simulation of a parametrized ILC detector to analyze RHN production. We also include the full simulation SM backgrounds used by Geant4 and evaluate the likelihood of the charge misidentification in the background processes.

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

13:00-15:00 JST (6:00-8:00 CEST, 0:00-2:00 EDT, 21:00-23:00 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:** H-1: BSM particle production

**Track Classification:** Parallel sessions: Topical Groups: Session H: BSM particle production