ILC Workshop on Potential Experiments (ILCX2021)



Contribution ID: 72

Type: Oral presentation using Zoom

A global study of right-handed neutrinos with GAMBIT

Friday, 29 October 2021 14:02 (23 minutes)

The complementarity of searches for new physics has become increasingly important in recent years, and therefore global analyses of BSM models, including constraints from many sources, are necessary for a full understanding on their validity. In this talk I will describe a global analysis of a model with three right-handed neutrinos using the GAMBIT tool, with constraints from cosmological sources, such as BBN, direct searches for heavy neutrinos at colliders and beam dump experiments, and a collection of indirect constraints, such as neutrinoless double beta decay and lepton flavour violation. I will also argue that searches for heavy neutral leptons, such as right-handed neutrinos, should be an important part of the research program of future experiments such as those at the ILC, as the most interesting parameter region falls within its energy reach and the results will make significant impact on our understanding of neutrino masses.

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: J: Global interpretations

Track Classification: Parallel sessions: Topical Groups: Session J: Global interpretations