## The XXVIII International Conference on Supersymmetry and Unification of Fundamental Interactions (SUSY 2021)



Contribution ID: 109 Type: not specified

## The Radiative SUSY Seesaw Mechanism

Tuesday, 24 August 2021 22:30 (20 minutes)

In this talk we first review the radiative seesaw scenario in the context of inverse seesaw models, in which small lepton number violating parameters generate radiatively at the one-loop order the observed small light neutrino masses. Then, we show how the supersymmetric version of this radiative mechanism offers cancellations among the one-loop contributions to neutrino masses thanks to a SUSY non-renormalization theorem, thereby relaxing dramatically the size of the lepton number violating parameters in such models. Finally, we discuss the phenomenological and cosmological implications of this radiative SUSY seesaw scenario.

**Primary author:** CANDIA DA SILVA, Pablo (The University of Manchester)

Co-author: PILAFTSIS, Apostolos (University of Manchester (GB))Presenter: CANDIA DA SILVA, Pablo (The University of Manchester)

Session Classification: Neutrino Physics and Leptons

Track Classification: Neutrino Physics and Leptons