



ID de Contribution: 209

Type: YSF (Young Scientists Forum)

## Probing the seesaw mechanism and leptogenesis

*jeudi 15 mars 2018 18:03 (5 minutes)*

Heavy neutrinos with masses below the electroweak scale can simultaneously generate the light neutrino masses via the seesaw mechanism and the baryon asymmetry of the universe via leptogenesis.

The requirement to explain these phenomena imposes constraints on the mass spectrum of the heavy neutrinos, their flavor mixing pattern and their CP properties.

We combine bounds from different experiments in the past to map the viable parameter regions in which the minimal low scale seesaw model can explain the observed neutrino oscillations, while being consistent with the negative results of past searches for physics beyond the Standard Model.

We then study which additional predictions for the properties of the heavy neutrinos can be made based on the requirement to explain the observed baryon asymmetry of the universe.

If any heavy neutral leptons are discovered in the future, our results can be used to assess whether these particles are indeed the common origin of the light neutrino masses and the baryon asymmetry of the universe.

### Summary

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**Classification de Session:** YSF4