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## Baryogenesis through leptogenesis in Inverse and Linear seesaw with $A_4$ flavor symmetry

The origin of the small neutrino masses and the BAU can be explained using seesaw mechanism and leptogenesis as phenomenological benchmarks. Since type II seesaw suffers from direct detectability in any foreseeable experiment, to overcome this, we constructed the inverse and linear seesaw models. The inclusion of the right handed Majorana fields can serve as extra source of CP violation in the leptonic sector. In these models, BAU can be explained within the framework of resonant leptogenesis (RL) which can be enhanced with two nearly degenerate heavy Majorana neutrinos of the order of TeV scale. The  $A_4$  symmetry parameters obtained from the triplet VEV alignment of flavons in the right handed Majorana neutrino mass matrix are used in computation of the baryon asymmetry for each seesaw model. We use the latest global fit neutrino oscillation parameter values, and constrain our results with latest global fit values of BAU.

### Mini-abstract

BAU through leptogenesis for Type II, Inverse, & linear seesaw models using  $A_4$  symmetry

### Experiment/Collaboration

Not Applicable

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