Contribution ID: **185** Type: **Parallel session talk**

Beyond the N1-dominated leptogenesis with the smallest modular finite group

Friday 19 July 2024 12:15 (15 minutes)

We propose a model for leptons based on the smallest modular finite group $\Gamma_2 \simeq S_3$, incorporating two right-handed sterile neutrinos $N_{1,2}$ and a single modulus τ into the Standard Model (SM) particle spectrum. In addition to offering an excellent fit to low-energy neutrino observables, we investigate the potential for explaining the baryon asymmetry of the Universe (BAU) through thermal leptogenesis. We numerically solve the unflavored Boltzmann Equations for lepton asymmetry, considering both the decays of N_1 and N_2. Our analysis leads to the conclusion that the N_1-dominated scenario is successful and it represents the most natural choice for the model.

I read the instructions above

Yes

Alternate track

1. Beyond the Standard Model

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