

Study on Leptogenesis in texture zeros of minimal inverse seesaw

Monday 27 May 2024 15:00 (15 minutes)

We study maximal texture zeros of the Dirac matrix in a minimal inverse seesaw ISS (2,3) model with S_4 flavor symmetry. The seesaw model is extended with the addition of 2 Right Handed neutrinos and 3 sterile states in the intermediate-mass range. To make the model more predictive, we have considered the maximum possible texture zeros in Dirac neutrino mass matrix M_D , heavy right-handed (RH) neutrino mass matrix M_R , and sterile mass matrix μ . There are six possible two zero textures of M_D along with maximal zero textures of M_R and μ that yield correct neutrino phenomenology. The decay of the light quasi-Dirac pair present in the model leads to lepton asymmetry. We study Leptogenesis in these six different textures for both normal and inverted ordering.

Primary author: GAUTAM, Nayana

Presenter: GAUTAM, Nayana

Session Classification: Parallel - 1

Track Classification: Neutrino physics