## Phenomenology 2021 Symposium



Contribution ID: 1416

Type: Cosmology

## Flavor-specific Neutrino self interaction in Cosmology

Tuesday 25 May 2021 15:15 (15 minutes)

Neutrino self-interaction has been proposed as a solution to the Hubble tension, a discrepancy between the measured values of the Hubble constant from CMB and low-redshift data. However, flavor-universal neutrino self-interaction is highly constrained by BBN and laboratory experiments such as K-meson and tau decay, double-neutrino beta decay etc. In this talk, I will discuss the cosmology of flavor specific neutrino self-interaction where only one or two neutrino flavor states are self-interacting. Such flavor-specific interactions are less constrained by the laboratory experiments. I will show that CMB and other cosmological dataset favours strong flavor specific neutrino self-interaction. Finally, I will talk about the feasibility of addressing the Hubble tension in this framework.

**Summary** 

Author: Mr GHOSH, Subhajit (University of Notre Dame)Presenter: Mr GHOSH, Subhajit (University of Notre Dame)Session Classification: Cosmology III