

Phenomenology 2021 Symposium



Contribution ID: 1305

Type: **Neutrinos**

Neutrino masses from simple scoto-seesaw model with spontaneous CP violation

Wednesday 26 May 2021 14:15 (15 minutes)

I will discuss our recent work on a simple scoto-seesaw model that accounts for dark matter and neutrino masses with spontaneous CP violation. This is achieved with a single horizontal \mathcal{Z}_8 discrete symmetry, broken to a residual \mathcal{Z}_2 subgroup responsible for stabilizing dark matter. CP is broken spontaneously via the complex vacuum expectation value of a scalar singlet, inducing leptonic CP-violating effects. We find that the imposed \mathcal{Z}_8 symmetry pushes the values of the Dirac CP phase and the lightest neutrino mass to ranges already probed by ongoing experiments.

Summary

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Session Classification: Neutrino II