



Contribution ID: 18

Type: **Parallel Contributed Talk**

## Minimal scoto-seesaw mechanism for neutrino masses with spontaneous CP violation

*Friday, 19 February 2021 17:30 (20 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.

### Collaboration name

**Primary authors:** BARREIROS, D. (CFTP/IST, U.Lisboa); JOAQUIM, F. (CFTP/IST, U. Lisboa); SRIVASTAVA, R. (Indian Institute of Science Education and Research); VALLE, J. (Institut de Física Corpuscular –C.S.I.C./Universitat de Valencia)

**Presenter:** BARREIROS, D. (CFTP/IST, U.Lisboa)

**Session Classification:** Non Standard Interactions

**Track Classification:** Neutrino Theory and Cosmology