Contribution ID: **1253** Type: **Parallel session talk**

Dynamical scoto-seesaw mechanism with gauged B-L symmetry

Saturday 20 July 2024 09:15 (15 minutes)

We propose a dynamical scoto-seesaw mechanism using a gauged $B-L$ symmetry. Dark matter is reconciled with neutrino mass generation, in such a way that the atmospheric scale arises through the standard seesaw, while the solar scale is scotogenic, arising radiatively from the exchange of dark sector particles. This way we explain the solar-to-atmospheric scale ratio. The TeV-scale seesaw mediator and the two dark fermions carry different $B-L$ charges. Dark matter stability follows from the residual matter parity that survives $B-L$ breaking. Besides having collider tests, the model implies sizeable charged lepton flavour violating (cLFV) phenomena, including Goldstone boson emission processes.

Alternate track

1. Beyond the Standard Model

I read the instructions above

Yes

Authors: Prof. VALLE, Jose; SADHUKHAN, Soumya (Ramakrishna Mission Residential College (Autonomous), Vivekananda Centre for Research, Narendrapur, Kolkata, West Bengal, India-700149)

Presenter: SADHUKHAN, Soumya (Ramakrishna Mission Residential College (Autonomous), Vivekananda Centre for Research, Narendrapur, Kolkata, West Bengal, India-700149)

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