

Contribution ID: 44 Type: Poster

Hints and Tests of Dark Neutrino Sectors

Experimental searches for light dark sectors can help shine light on the origin of neutrino masses. In this poster I present one possibility of a dark sector that realizes the inverse seesaw at the MeV scale, and offers new experimental signatures to be searched for. The model, in fact, can accommodate several experimental anomalies, such as the MiniBooNE low energy excess. We are interested in enriching a heavy neutrino sector with a dark $U(1)^\prime$ symmetry, whose mediator kinetically mixes with hypercharge. This scenario produces new production and decay channels for heavy neutral leptons.

Mini-abstract

Dark neutrino sectors with an inverse seesaw and possible hints at low energy experiments.

Primary author: Mr HOSTERT, Matheus (University of Minnesota / Perimeter Institute)

Presenter: Mr HOSTERT, Matheus (University of Minnesota / Perimeter Institute)

Session Classification: Poster session 4