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Neutrino masses and self-interacting dark matter in a Z-Z' mixing model

Monday 8 May 2023 14:15 (15 minutes)

In this talk we will discuss the possibility that a gauged U(1)' symmetry mediates dark matter self interactions. The breaking of this symmetry induces a Z-Z' mass mixing term, connecting the dark and visible sectors. After symmetry breaking of the U(1)', the fermion content of the dark sector is divided into right handed neutrinos and a stable dark matter candidate. We discuss the neutrino and dark matter phenomenology of this setup.

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