

Phenomenological Implications of Multipartite Dark Sector

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Multipartite dark sector has several motivations, one of the key issues being to evade stringent direct search bound. In this talk, we highlight some interesting phenomenological features of having two component dark matter models constituted of scalar-scalar or scalar-fermion dark matter, where the interaction between the dark matter components not only yields a larger available parameter space but also can aid to a observable signal excess at the Large Hadron Collider experiment in near or distant future. We also comment on the prospect of addressing neutrino mass in the same framework(s).

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