Radiative Neutrino Mass via Fermion Kinetic Mixing

Tuesday 28 August 2018 15:45 (1 hour)

We propose that the radiative generation of the neutrino mass can be achieved by incorporating the kinetic mixing of fermion fields which arises radiatively at 1 loop level. As a demonstrative example of the application of the mechanism, we will present the particular case of Standard Model extension by $U(1)_D$ symmetry. As a result, we show how neutrino masses can be generated via kinetic mixing portal instead of mass matrix with residual symmetries responsible for stability of multicomponent dark matter.

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Track Classification: Neutrinos