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Low-energy effective action for Dirac neutrino model

In this work, we investigate a simple model which leads to a tiny Dirac neutrino mass due to the small expectation value of the scalar Higgs. The model consists of the two Higgs, one of which is the heavy scalar and the other is the light scalar. To construct the effective action of the Dirac neutrino field, we integrate out the scalar Higgs fields. In addition, we also study the properties of the obtained effective action and its phenomenology caused by it.

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