

Generalizing the Scotogenic model

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The Scotogenic model is an economical setup that induces Majorana neutrino masses at the 1-loop level and includes a dark matter candidate. We discuss a generalization of the original Scotogenic model with arbitrary numbers of generations of singlet fermion and inert doublet scalar fields. First, the full form of the light neutrino mass matrix is presented, with some comments on its derivation and with special attention to some particular cases. The behavior of the theory at high energies is explored by solving the Renormalization Group Equations.

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