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Dark linear seesaw mechanism

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I will discuss our recent paper Phys.Lett.B 843 (2023) 138012 where we propose a minimal model where a dark sector, odd under a Z2 discrete symmetry, is the seed of lepton number violation in the neutrino sector at the loop level, in the context of the linear seesaw mechanism. We study the dark-matter phenomenology of the model, focusing on the case in which the stable particle is the lightest neutral scalar arising from the dark scalar sector. Prospects for testing our framework with the results of current and future lepton flavour violation searches are also discussed.

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