

Neutrino masses, flavor anomalies and muon

boldsymbolg-2fromdarkloops

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The lepton sector of the Standard Model is at present haunted by several intriguing anomalies, including an emerging pattern of deviations in $b \rightarrow s\ell\ell$ processes, with hints of lepton flavor universality violation, and a discrepancy in the muon anomalous magnetic moment. More importantly, it cannot explain neutrino oscillation data, which necessarily imply the existence of non-zero neutrino masses and lepton mixings. We propose a model that accommodates all the aforementioned anomalies, induces neutrino masses and provides a testable dark matter candidate. This is achieved by introducing a dark sector contributing to the observables of interest at the 1-loop level. Our setup provides a very economical explanation to all these open questions in particle physics and is compatible with the current experimental constraints.

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