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(g-2) and lepton flavor violation in low scale flavor symmetries

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Low-energy flavour symmetries could contribute to the observed muon anomalous magnetic moment discrepancy. However, the stringent experimental bound on $\mu \to e\gamma$ is compatible with a simultaneous and sizable new physics contribution to the muon only if we assume a mostly (quasi)diagonal texture for models with a low flavor breaking scale. We propose a mechanism in which the realization of the (g-2) correction is manifestly related to the mass generation through a flavor symmetry. A radiative flavon correction to the fermion mass gives a contribution to the anomalous magnetic moment. We argue that many of the popular flavor models in the literature designed to explain the fermion masses and mixings are not suitable for reproducing the observed discrepancy in (g-2) which requires a delicate balance of maintaining a low flavor scale while simultaneously satisfying strong LFV constraints. Then, we present two concrete examples of models where a sub-TeV scale breaking of their respective T13 and A5 flavor symmetries is able to account for the recently observed discrepancy in the muon anomalous magnetic moment

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