

# Modulus mediation and lepton flavor violation in supersymmetric seesaw

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Supersymmetry (SUSY) is a well-motivated candidate for physics beyond the standard model (SM), while the seesaw mechanism explains observed small neutrino mass introducing heavy right-handed neutrinos and corresponding neutrino Yukawa couplings. In supersymmetry, it is well-known that radiative corrections from the neutrino Yukawa couplings induce large flavor mixing in the slepton mass. This eventually causes lepton flavor violating processes like  $\mu \rightarrow e, \gamma$  via loop diagram involving SUSY partners. Previously these processes are mostly analyzed in benchmark SUSY breaking models like the minimal supergravity or the constrained minimal SUSY SM (CMSSM) that have no strong theoretical motivations. We reanalyzed these processes in the modulus mediated SUSY breaking motivated by superstring theory.