

The Higgs, Flavor and Large A in Extended GMSB

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The observed Higgs at 126 GeV requires large tuning in the MSSM. This tuning is particularly bad in gauge mediated SUSY breaking (GMSB), as the large A -terms that can ameliorate this tuning are absent at the messenger scale. Extending GMSB through the addition of superpotential couplings between the MSSM and messenger superfields can generate these A -terms to reduce the severity of the tuning problems in GMSB. There are a variety of couplings that one can consider, but those best for tuning provide a source of flavor violation beyond the standard model Yukawas. However, extended GMSB models exhibit chiral flavor violation, a simple ansatz that relaxes many flavor constraints and the SUSY flavor problem. I will review extended GMSB and tuning, discuss the flavor issues, and also discuss some of the phenomenological prospects for discovering these models.