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## Constrained Supersymmetric Flipped SU(5) GUT Phenomenology

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We explore the phenomenology of the minimal supersymmetric flipped SU(5) GUT model (CFSU(5)), whose soft supersymmetry-breaking (SSB) mass parameters are constrained to be universal at some input scale,  $M_{in}$ , above the GUT scale,  $M_{GUT}$ . We analyze the parameter space of CFSU(5) assuming that the lightest supersymmetric particle (LSP) provides the cosmological cold dark matter, paying careful attention to the matching of parameters at the GUT scale. We first display some specific examples of the evolutions of the SSB parameters that exhibit some generic features. Specifically, we note that the relationship between the masses of the lightest neutralino and the lighter stau is sensitive to  $M_{in}$ , as is the relationship between the neutralino mass and the masses of the heavier Higgs bosons. For these reasons, prominent features in generic  $(m_{1/2}, m_0)$  planes such as coannihilation strips and rapid-annihilation funnels are also sensitive to  $M_{in}$ , as we illustrate for several cases with  $\tan(\beta)=10$  and 55. However, these features do not necessarily disappear at large  $M_{in}$ , unlike the case in the minimal conventional SU(5) GUT. Our results are relatively insensitive to neutrino masses.

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