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Sub-GUT mSUGRA PEARL SANDICK, University of Utah — In this talk I will discuss the phenomenology of minimal supergravity (mSUGRA) models in which the supersymmetry-breaking parameters are universal at a scale below the scale at which the Standard Model gauge couplings unify, known as the GUT scale. We find that these so-called sub-GUT mSUGRA models can accommodate a $\sim$125 GeV Standard Model-like Higgs boson while at the same time providing a viable explanation for the observed dark matter in the universe. I will introduce the sub-GUT mSUGRA parameter space and present a brief exploration, focusing on cosmologically-favored regions where the dark matter abundance is in agreement with the measured value.

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