

High-Scale Supersymmetry from Inflection-Point Sgoldstino Inflation

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We propose a modification of no-scale supergravity models which incorporates sgoldstino stabilization and supersymmetry (SUSY) breaking with a tunable cosmological constant by introducing a Kahler potential which yields a kinetic pole of order one. The resulting scalar potential may develop an inflection point close to which an inflationary period can be realized for subplanckian field values consistently with the observational data. For central value of the spectral index n_s , the necessary tuning is of the order of 10^{-6} , the tensor-to-scalar ratio is tiny whereas the running of n_s is around -3×10^{-3} . Our proposal is compatible with high-scale SUSY and the results of LHC on the Higgs boson mass.

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