

Inflation From The MSSM. N=1 Supergravity Setup

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Taking the minimalistic approach, within MSSM, we propose the model of inflation in which the inflaton field is a scalar component of the MSSM state(s).

The proposed model turns out to be very predictive. The inflationary phase is fully governed by the MSSM Yukawa superpotential couplings. The values of the scalar spectral index and the tensor-to-scalar ratio are predicted to be $n_s \approx 0.966$ and $r \approx 0.00118$. The post-inflation reheating of the Universe proceeds by the inflaton's decay with the reheating temperature around 10 thousands TeV.

Some phenomenological implication will be also outlined and discussed.

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