

Affleck-Dine Sneutrino Inflation

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Motivated by the coincidence between the Hubble scale during inflation and the typical see-saw neutrino mass scale, we present a supergravity model where the inflaton is identified with a linear combination of right-handed sneutrino fields. The model accommodates an inflaton potential that is flatter than quadratic chaotic inflation, resulting in a measurable but not yet ruled out tensor-to-scalar ratio. Small CP-violation in the neutrino mass matrix and supersymmetry breaking yield an evolution in the complex plane for the sneutrino fields. This induces a net lepton charge that, via the Affleck-Dine mechanism, can be the origin of the observed baryon asymmetry of the universe.

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