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Warming up brane-antibrane inflation

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We show that, in constructions with additional intersecting D-branes, brane-antibrane inflation may naturally occur in a warm regime, such that strong dissipative effects damp the inflaton's motion, greatly alleviating the associated eta-problem. We illustrate this for D3-antiD3 inflation in flat space with additional flavor D7-branes, where for both a Coulomb-like and a quadratic potential a sufficient number of e-folds may be obtained for perturbative couplings and $O(10-100)$ branes. This is in clear contrast with the corresponding cold scenarios, thus setting the stage for more realistic constructions within fully stabilized compactifications. Such models generically predict a negligible amount of tensor perturbations and non-gaussianity $f_{NL} \sim O(10)$.

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