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## Gauge Non-Singlet Matter Inflation in Supergravity

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We discuss a novel class of inflation models in supergravity with gauge non-singlet matter fields as the inflaton. It is based on a ‘tribrid’ structure in the superpotential and on a ‘Heisenberg symmetry’ for solving the  $\eta$ -problem. Inflation ends via a waterfall phase transition, as in hybrid inflation. In the context of grand unified theories, the unified matter superparticle provides a promising inflaton candidate. We also comment on how a generalization of this model class may be suitable for realising inflation in heterotic orbifold compactifications, where the Heisenberg symmetry is a property of the tree-level Kahler potential of untwisted matter fields.

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