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## **Cosmological implications of unification with D-parity**

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Exclusion of several classes of models due to LHC and astroparticle data has revived interest in grand unification. We consider  $SO(10)$  unified models with D-parity due to their success in incorporating light neutrino masses. We study various patterns of symmetry and supersymmetry breaking therein. Formation of topological defects in these models can alter the nature of phase transitions, including inflation. Combining the constraints on inflation from CMB data and the constraints from big bang nucleosynthesis we identify constraints to be satisfied by the energy scales of symmetry breaking and of supersymmetry breaking in this class of models.

### **Presentation type**

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