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## Axion cosmology and domain walls

*Wednesday, 31 August 2011 14:00 (20 minutes)*

We reargue the axion cosmology which suffers from the domain wall problem. Domain walls are formed after the QCD phase transition, but it may disappear if we introduce a bias in the potential. We perform lattice simulations of domain wall networks and estimate the decay rate of domain walls. Using the result of the numerical study, we give the observational constraints for model parameters. We also discuss the possibility to probe axion models by the direct detection of gravitational waves produced by domain walls.

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