

The Fate of Axion Domain Walls

Theories in which the Peccei-Quinn phase transition occurs after inflation tend to suffer from problematic domain walls. One possible solution involves a small, explicit breaking to the symmetry. But this raises other potential issues. In this talk, we review some aspects of axion domain walls, focussing especially on this proposed solution. We argue, in disagreement with some recent literature, that most of the domain wall energy emerges as high momentum axions. We then note that, if one accepts a remarkable coincidence, this solution can be acceptable. We consider a possible explanation of the required coincidence.

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