

Axion strings and dark matter

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The axion solution to the strong CP problem also provides a natural dark matter candidate. If the PQ symmetry has ever been restored after inflation, topological defects of the axion field would have formed and produced relic axions, whose abundance is in principle calculable. Using numerical simulations I will present a detailed study of the evolution of axion strings and the resulting spectrum of axion produced. The features found are important for a correct estimate of the total DM abundance. Work to appear in collaboration with A.Azatov, E.Hardy and G.Villadoro

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