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Scalar field in an expanding toy Universe on a lattice

Content

We investigate the 2d $\lambda\phi^4$ model in an expanding space-time with a Friedmann-Lemaître-Robertson-Walker metric. The Euclidean lattice formulation is studied by means of Monte Carlo simulations. We explore the order-disorder phase transition as well as the energy density, both depending on the action parameters μ^2 and λ, and on the Hubble parameter H.

Summary

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