

Relaxation in Integrable Field Theories

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Out of equilibrium dynamics of integrable systems have been intensively studied in the past 20 years. However, a full characterisation of time evolution of an integrable field theory after a quantum quench is still missing. We investigate processes occurring during relaxation towards a steady state and describe them in terms of analytical properties of matrix elements of operators in the post-quench theory. All these results are fully general for integrable models and are checked against the predictions obtained from Ising field theory, transverse-field Ising lattice model, Sinh-Gordon and Sine-Gordon field theory.

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