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Asymptotic behavior of integrable models correlation functions : Bethe ansatz approach

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Abstract

We describe a method to derive, from first principles, the asymptotic behavior of integrable models correlation functions in the framework of the algebraic Bethe ansatz. We apply this approach to the XXZ Heisenberg spin-1/2 chain (with magnetic field) in the disordered regime. The results confirm the Luttinger liquid and conformal field theory predictions.