

Séminaire de physique mathématique

Lundi 17/06/2019, 11h00-12h00

Orme des Merisiers Salle Claude Itzykson, Bât. 774

Scaling behavior of the Bethe states for spin chains
associated with the 6-vertex model

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Going back to Kadanoff's block spin transformation, the concept of the Renormalization Group (RG) is usually illustrated by means of a finite statistical lattice system that provides a regularization of the Euclidean path integral. Within the Hamiltonian picture, attempts to introduce the size dependence for low energy stationary states of a finite lattice system meet immediate difficulties. However, for certain 1D spin chains, the problem is greatly facilitated by the presence of both conformal and integrable structures. Here we'll consider two examples of integrable critical spin chains related to the 6-vertex model: the spin 1/2 Heisenberg chain and the alternating spin chain. In the latter, the critical behavior is governed by a CFT possessing a continuous spectrum of scaling dimensions. Our considerations make use of the ODE/IQFT correspondence.
