Quantum integrable systems, conformal field theories and stochastic processes



ID de Contribution: 75

Type: Non spécifié

Correlation and entanglement in non-uniform one-dimensional quantum systems: the free fermion case

The goal will be to reach exact asymptotic formulas for correlation functions and entanglement entropies in two simple

models: the free Fermi gas in a trap potential, and free fermions on a line, released from a flat trap. The key idea

will be to identify the metric that enters the action of the (conformal) field theory from the local behavior of the propagator,

which is given by a local density approximation. We will discuss connections with arctic circle problems.

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