ASPECTS OF STATISTICAL MECHANICS AND ALGEBRAIC COMBINATORICS

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Abstract

I would like to outline two of the many connections between exactly solvable models and algebraic combinatorics.

The first is the corner transfer matrix method that allows one compute certain physical quantities in terms of q-weighted Dyck paths.

The second is the matrix integral representation of statistical models on random lattices.

REFERENCES

[1] O Foda, B Leclerc, M Okado, J-Y Thibon, and T A Welsh, Combinatorics of solvable lattice models, and modular representations of Hecke algebras, q-alg/9701021, first 3 sections.
[2] K Kostov, Solvable statistical models on a random lattice, hep-th/9509124, First 3 sections.

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