June 13 (Fri.) 15:00 – 16:00

Alternating sign matrices and the Quantum Hall effect?

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There has recently been a convergence of interests between combinatorics and physics through the observation due to Razumov and Stroganov that the components of the ground state wave function of the 6-vertex (at a special value of the anisotropy parameter) model enumerate alternating sign matrices. This correspondence is still mysterious. I shall present one approach to the problem which uses the (Macdonald) polynomial representation of affine-Hecke algebras and points towards a connection with the Quantum Hall Effect.