

The spin-one XXZ chain and symmetry classes of alternating sign matrices

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On this talk, I discuss some recent progress on the ground states of the integrable spin-one XXZ chain with diagonal and anti-diagonal twists. Several components and scalar products of the ground state vectors are related to polynomials which appear in problems of enumeration of alternating sign matrices with symmetries. I show how these relations can be proved by means of the algebraic Bethe ansatz and the quantum separation of variables method.