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Bethe Ansatz and Periodic Box-Ball Systems.

Akira Takenouchi
Institute of physics, University of Tokyo, Komaba 3-8-1, Meguro-ku, Tokyo 153-8902, Japan

Based on the Bethe ansatz at q=0 and q=1, we formulate the inverse scattering method for the most fundamental periodic box-ball system and solve the initial value problem. Moreover we propose explicit formulae for the dynamical period and the number of states characterized by conserved quantities in the most general periodic box-ball system for $A_n^{(1)}$ case. (Joint work with A. Kuniba and T .Takagi)

References

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