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Yang–Baxter maps associated to integrable lattice equations

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Abstract

There has been a recent interest in the study of the Yang–Baxter equation for maps. This is due to the development of the dynamical theory of Yang–Baxter maps by A. Veselov, and classification results of Yang–Baxter maps and integrable discrete equations on the square lattice by V. Adler, A. Bobenko and Yu. Suris.

The main aim of the talk is twofold. First, to show that Yang–Baxter maps can be obtained from integrable lattice equations by virtue of their admitted symmetry groups, and second, to give a method to the same end which does not prerequisite the existence of a symmetry group.
(Joint work(s) with V. Papageorgiou and A. Veselov)