

Landscapes of integrable spin chains.

Based on 2405.09718 with Jules Lamers: I discuss the general construction of integrable long-range spin chains from R-matrices, in particular the two known elliptic solutions to the sl_2 Yang-Baxter equation. I'll show how each generates its own landscape of models, which connect only incidentally, and identify the various models that appear in each. In particular, I'll show how the Sechin-Zotov spin chain, which belongs to the landscape generated by the eight-vertex R-matrix, can be thought of as an antiperiodic version of the Inozemtsev spin chain (which sits in the landscape of Felder's dynamical R matrix). As a byproduct, this shows that the (hyperbolic) Sechin-Zotov chain is a long-range deformation of the antiperiodic XX model.

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