

Algèbres non commutatives, théorie des représentations et fonctions
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Folded quantum integrable models and deformed W -algebras

We propose a novel quantum integrable model for every non-simply laced simple Lie algebra \mathfrak{g} . Its spectra correspond to solutions of the Bethe Ansatz equations obtained by folding the Bethe Ansatz equations associated to the simply-laced Lie algebra \mathfrak{g}' (corresponding to \mathfrak{g}). Our construction is motivated by the analysis of the second classical limit of the deformed W -algebra of \mathfrak{g} . We conjecture, and verify in a number of cases, that the spaces of states of the folded integrable model can be identified with finite-dimensional representations of the Langlands dual (twisted) quantum affine algebra.

This is a joint work with E. Frenkel and N. Reshetikhin.