

1127-17-391

Kang Lu* (lukang@iupui.edu), Department of Mathematical Sciences LD 270, 402 N Blackford St, Indianapolis, IN 46202. *On the Gaudin model and self-dual Grassmannian.*

We derive explicit formulas for solutions of the Bethe ansatz equations of the Gaudin model associated to the tensor product of one arbitrary finite-dimensional irreducible module and one vector representation for all simple Lie algebras of classical type. We use this result to show that the Bethe ansatz is complete in any tensor product where all but one factor are vector representations and the evaluation parameters are generic.

We shall also talk about the self-dual Grassmannian. The self-dual Grassmannian is a subset of Grassmannian related to the study of Gaudin model in types B and C. It has a remarkable stratification-like structure.

This is a joint work with E. Mukhin and A. Varchenko. (Received February 07, 2017)