Journal Club

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Jeudi 25/04/2019, 11h30

Orme des Merisiers Salle Claude Itzykson, Bât. 774

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Nordita Stockholm and Uppsal U.

Separated variables and wave functions for rational GL(N) spin chains

"Integrability meeting ENS/IPhT"

We present a basis in which wave functions of integrable XXX spin chain factorise into a product of Slater determinants of Baxter Q-functions. We furthermore show that this basis is formed by eigenvectors of the B[good]-operator and it is naturally labelled by Gelfand-Tsetlin patterns. The discussion is valid for spin chains in any rectangular representation and arbitrary rank of the GL(N) symmetry group. For symmetric powers of the defining representation, one also observes a corollary that B[good]-operator acting on a suitably chosen vacuum constructs the eigenstates of the Bethe algebra.

(IPhT organizers: Ivan Kostov and Didina Serban)