

# SEMPARIS – Séminaires en région parisienne

<http://string.lpthe.jussieu.fr/semparis/>

## Strings, integrability and beyond

**Jeudi 25 Avril 2019, 11 :30**

IPHT, Salle Itzyckson

Domaines : hep-th

Titre : *Separated variables and wave functions for rational  $GL(N)$  spin chains*

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Résumé : *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  $B[\text{good}]$ -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  $B[\text{good}]$ -operator acting on a suitably chosen vacuum constructs the eigenstates of the Bethe algebra.*

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