# SEMPARIS – Séminaires en région parisienne

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

## Strings, integrability and beyond

**Jeudi 27 Avril 2017, 14 :30**
LPTENS, LPTENS Library
Domaines : hep-th

Titre : *Integrable twists of N=4 SYM*

Orateur : **Konstantin Zarembo ( NORDITA )**

Résumé : *The N=4 Super-Yang-Mills theory admits star-product-type deformations which preserve many remarkable properties of the parent theory. The resulting field theories can be non-local - non-commutative or dipole - or can just have different couplings in the Lagrangian. The AdS/CFT correspondence and integrability lead to a very beautiful triality between star-products in field theory, TsT transformations on the gravity side and Drinfeld-Reshetikhin twists in the spin-chain picture. I will mostly focus on the null dipole CFT - an example of (potentially) solvable (2+1)d non-relativistic theory - where integrability structure gets deformed in an interesting way. The traditional Bethe ansatz is not applicable even at one loop and one needs to deal with the Baxter equation from the very beginning.*