

**SEMPARIS – Séminaires en région parisienne**  
<http://string.lpthe.jussieu.fr/semparis/>

**Journal Club**

**Vendredi 12 Octobre 2018, 11 :30**  
IPHT, Pièce 026, Bât. 774  
Domaines : physics

Titre : *G-function from graph theory*

Orateur : **Dinh-Long Vu ( IPhT Saclay )**

Résumé : “*Integrability meeting ENS/IPhT*”

*We propose a new method for computing the boundary free energy of an integrable 1 1 dimensional quantum system. We apply the matrix-tree theorem to write the integration measure in the cluster expansion of the partition function as a sum over trees and loops. The sum over trees satisfies the Thermodynamic Bethe Ansatz equation while the sum over loops gives rise to two Fredholm determinants.*

*Based on recent work <https://arxiv.org/pdf/1809.05705.pdf>*

*(IPhT organizers : Ivan Kostov and Didina Serban)*

---