

**Institut Henri Poincaré**  
11 rue Pierre et Marie Curie, 75231 Paris cedex 05  
**String Theory in Greater Paris**

**Rencontres Théoriciennes**  
**“Supergravité, théorie des cordes et théorie M”**

*Jeudi 9 Mars 2017, 10:00*

**Razvan Gurau**

*CPT-Polytechnique*

**Invitation to Random Tensors**

*Random matrices are ubiquitous in modern theoretical physics and provide insights on a wealth of phenomena, from the spectra of heavy nuclei to the theory of strong interactions or random two dimensional surfaces. The backbone of all the analytical results in matrix models is their  $1/N$  expansion (where  $N$  is the size of the matrix). Despite early attempts in the '90, the generalization of this  $1/N$  expansion to higher dimensional random tensor models has proven very challenging. This changed with the discovery of the  $1/N$  expansion (originally for colored and subsequently for arbitrary invariant) tensor models in 2010. In this talk I will present a short introduction to the modern theory of random tensors and its connections to random higher dimensional geometry.*

**Institut Henri Poincaré, salle 314, 3<sup>ème</sup> étage**

Retrouvez les activités de la communauté parisienne de théorie des cordes sur  
<http://string.lpthe.jussieu.fr>  
La liste de tous les séminaires en région parisienne est disponible sur  
<http://string.lpthe.jussieu.fr/semparis>

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