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SEMINAR OF MATHEMATICS

> MONDAY 26 MARCH 2018, 11:00 - MA A1 12

Dr. Razvan GURAU (CPHT, Ecole Poltyechnique, Palaiseau / France) will present a seminar entitled:

"Invitation to random tensors and tensor field theories"

Abstract:

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). In spite of early attempts in the 1990s, the generalization of this 1/N expansion to higher rank random tensor models proved very challenging. This changed with the discovery of the 1/N expansion (originally for colored and subsequently for arbitrary invariant) tensor models in 2010. I this talk I will present an introduction to the modern theory of random tensors and its applications to conformal field theory and higher dimensional random geometry.

Lausanne, 13 March 2018/ AA/cr