Kolokviální přednáška se konala ve středu 12. října 2016, v 16:00 v posluchárně M1

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Universality of random matrices and log-gases

Abstract:

The Wigner-Dyson-Mehta conjecture asserts that the local eigenvalue statistics of large real and complex Hermitian matrices with independent, identically distributed entries are universal in a sense that they depend only on the symmetry class of the matrix and otherwise are independent of the details of the distribution.
We present the recent solution to this half-century old conjecture. We explain how stochastic tools, such as the Dyson Brownian motion, and PDE ideas, such as De Giorgi-Nash-Moser regularity theory, were combined in the solution.
We also show related results for log-gases that represent a universal model for strongly correlated systems.

Záznam přednášky **ZDE**