Seminar/Talk

Random matrices with slow correlation decay

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Host: Laszlo Erdös

We first present a short introduction to random matrix theory and its motivations from quantum physics. In the main part of the talk we review some recent results on the local eigenvalue statistics of various random matrix models generalising the classical Wigner random matrices with independent identically distributed zero mean entries. We demonstrate that the celebrated Wigner-Dyson-Mehta universality conjecture also extends to correlated random matrices with a finite polynomial decay of correlations and arbitrary expectation. Our proof relies on a quantitative stability analysis of the matrix Dyson equation (MDE) as well as on a systematic diagrammatic control of a multivariate cumulant expansion.

Tuesday, November 14, 2017 04:00pm - 06:00pm
Big Seminar room Ground floor / Office Bldg West (I21.EG.101)

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