

UNIVERSITÄT DES SAARLANDES
Fakultät für Mathematik und Informatik
Fachrichtung Mathematik



Mathematisches Kolloquium

Am Freitag, dem 26. Januar 2018 spricht um 14 Uhr c. t. im Hörsaal IV
der Fachrichtung Mathematik (Gebäude E24)

Prof. Dr. Laszlo Erdős
Institute of Science and Technology Austria
(IST Austria)

über das Thema:

Random matrices via the matrix Dyson equation

Abstract: The spectral statistics of large random matrices exhibit a new type of universality as postulated by Eugene Wigner in the 1950's. This celebrated Wigner-Dyson-Mehta conjecture has recently been proved for hermitian matrices with independent, identically distributed entries. Wigner's original vision, however, extends well beyond this class of matrix ensembles and it predicts universal behavior for any random operator with 'sufficient complexity'. One of main mathematical tools is the matrix Dyson equation (MDE), a deterministic quadratic equation for large matrices that computes the density of states. After an extensive and non-technical introduction to random matrix theory, we will discuss new classes of matrix ensembles that have become accessible by a systematic analysis of the MDE.

Der Gast wird von Prof. Dr. Roland Speicher betreut.

Alle Interessenten sind zum Vortrag herzlich eingeladen.

Kaffee und Tee ab 13.45 Uhr im Konferenzraum der Mathematik (Erdgeschoss, Raum 103)

Die Dozenten der Mathematik