



# VII Brunel–Bielefeld Workshop on Random Matrix Theory

Center for Interdisciplinary Research – ZiF, Universität Bielefeld

Convenors: G. Akemann (Bielefeld), I. Krasovsky (Imperial), D. Savin and I. Smolyarenko (Brunel)

## Thursday 15. December 2011:

15:00–16:00 REGISTRATION & COFFEE ZiF Hall 1st floor  
17:00 onwards POSTER SESSION followed by RECEPTION & BUFFET (from 19:00)

## Friday 16. December 2011:

09:20 WELCOME *by the ZiF Director Philippe Blanchard*  
09:30–10:15 Jon Keating *RMT and number theory*  
10:15–11:00 Friedrich Götze *Asymptotic approximations for global and local spectral distributions and applications*  
11:00–11:30 COFFEE BREAK  
11:30–12:15 Yan Fyodorov *Random Matrices and 1/f noises*  
12:15–13:00 Oleg Yevtushenko *Critical propagators in power law banded RMTs: Crossover to strong multifractality regime*  
13:00–15:00 LUNCH BREAK  
15:00–15:45 Reimer Kühn *Spectra of empirical auto-covariance matrices derived from time series*  
15:45–16:30 Nick Simm *Statistics of quantum transport with orthogonal or symplectic symmetry*  
16:30–17:00 COFFEE BREAK  
17:00–17:45 Kim Splittorff *RMT for QCD at non zero lattice spacing*  
17:45–18:30 Karol Życzkowski *Induced Ginibre ensemble and random operations*  
20:00 CONFERENCE DINNER

## Saturday 17. December 2011:

09:30–10:15 Arno Kuijlaars *Multiple orthogonal polynomials in the normal matrix model*  
10:15–11:00 Benjamin Schlein *The average density of states of Hermitian Wigner matrices*  
11:00–11:30 COFFEE BREAK  
11:30–12:15 Tamara Grava *Universality results for Hamiltonian PDEs*  
12:15–13:00 Boris Konopelchenko *On the singular sector of the Hermitian random matrix model in large  $N$  limit*  
13:00–14:30 LUNCH BREAK  
14:30–15:15 Dima Shepelyansky *Google matrix of social networks*  
15:15–15:45 COFFEE BREAK  
15:45–16:30 Alexander Soshnikov *On fluctuations of matrix entries of regular functions of Wigner matrices*  
16:30–17:15 Thomas Guhr *Random matrix approach to credit risk*

## Poster Presentations:

Lorna J. Brightmore	<i>Entanglement of a two-interval spin chain</i>
Jonit Fischmann	<i>The induced family of random matrices and the one-component plasma</i>
Felix Grimme	<i>Wigner random matrices: Distribution of the largest eigenvalue</i>
Jesper R. Ipsen	<i>Baryon Density Dirac Spectrum</i>
Fernando Metz	<i>The spectrum of sparse regular graphs</i>
Sebastian Müller	<i>Semiclassical approach to discrete symmetries in quantum chaos</i>
Marcel Novaes	<i>Exact semi-classics for transport statistics</i>
Alexander Ossipov	<i>Critical eigenstates of the long-range random Hamiltonians</i>
Sebastian Schierenberg	<i>Wigner surmise for mixed symmetry classes in random matrix theory</i>
Kristina Schubert	<i>Nearest neighbour spacing distribution in invariant matrix ensembles</i>
Martin Venker	<i>Local universality of repulsive particle systems and random matrices</i>
Lu Wei	<i>Eigenvalue based signal detection methods</i>