



International Conference:

Dynamical Numbers: Interplay between Dynamical Systems and Number Theory

Bonn, Germany, 20-24 July 2009

PROGRAMME

Monday 20 July 2009

- 09.30 - 10.00 **Conference opening**
Welcome by organizers
- Tea break*
- 10.30 - 11.30 **Marmi, Stefano** (Scuola Normale Superiore di Pisa, Italy & MPI, Germany)
Roth type interval exchange maps
- 11.40 - 12.40 **Vershik, Anatoly** (St.Petersburg Department of Steklov Institute of
Mathematics, Russia)
Arithmetic and dynamics
- Lunch*
- 14.00 - 14.50 **Bainbridge, Matthew** (University of Chicago, US & MPI, Germany)
Algebraically primitive Teichmüller curves in genus three
- 15.00 - 16.00 **Deninger, Christopher** (Universität Münster & MPI, Germany)
Noncommutative Mahler measures and Ljapunov exponents
- Tea break*
- 16.30 - 17.30 **Marklof, Jens** (University of Bristol, UK & MPI, Germany)
**The asymptotic distribution of Frobenius numbers and flows on
homogeneous spaces**
- 17.40 - 18.30 **Kontorovich, Alex** (Brown University, US)
On representations of integers in thin subgroups of $SL(2, \mathbb{Z})$

Tuesday 21 July 2009

- 09.00 - 09.50 **Bufetov, Alexander** (Rice University, US & MPI, Germany)
Limit theorems for translation flows
- Tea break*
- 10.30 - 11.30 **Glasner, Eli** (Tel-Aviv University, Israel & MPI, Germany)
A topological lens for a measure-preserving system
- 11.40 - 12.40 **Schmidt, Klaus** (University of Vienna, Austria & MPI, Germany)
Mahler measure, a dynamical number
- Lunch*
- 14.00 - 14.50 **Zieve, Michael** (Institute for Advanced Study, US)
**Intersections of polynomial orbits, and a dynamical Mordell-Lang
conjecture**



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15.00 - 16.00 **Einsiedler, Manfred** (Ohio State University, ETH Zürich & MPI, Germany)
Diophantine approximation on invariant fractals

Tea break

16.30 - 17.30 **Nevo, Amos** (Technion - Israel Institute of Technology & MPI, Germany)
Ergodic theory and lattice points

18.00 – **Open problems session**

Wednesday 22 July 2009

09.00 - 09.50 **Shapira, Uri** (Hebrew University of Jerusalem, Israel & MPI, Germany)
Applications of rigidity of higher rank hyperbolic actions

Tea break

10.30 - 11.30 **Lindenstrauss, Elon** (Hebrew University of Jerusalem, Israel & MPI, Germany)
Arithmetic combinatorics and effective equidistribution

11.40 - 12.40 **Ugarcovici, Ilie** (DePaul University, US & MPI, Germany)
Structure of attractors for (a,b)-continued fractions, II

Lunch

14.00 – 15.00 **Pollicott, Mark** (University of Warwick, UK & MPI, Germany)
Random matrix products and absolute continuity of the associated measures

15.10 – 16.00 **Solomyak, Boris** (University of Washington, US & MPI, Germany)
Dynamics of self-affine tilings and algebraic number theory

Tea break

20.00 – **Conference dinner**

Thursday 23 July 2009

09.00 - 09.50 **Wang, Zhiren** (Princeton University, US & HCM, Germany)
A quantitative result on actions of commutative toral automorphisms

Tea break

10.30 - 11.30 **Yoccoz, Jean-Christophe** (Collège de France & MPI, Germany)
Affine interval exchange maps

11.40 - 12.40 **Margulis, Gregori** (Yale University, US)
Distribution of values of indefinite quadratic forms at integral points

Lunch



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- 14.00 – 14.50 **Jones, Rafe** (College of the Holy Cross, US)
Galois actions on preimage trees
- 15.00 – 16.00 **Ulcigrai, Corinna** (University of Bristol, UK & MPI, Germany)
Absence of mixing in locally Hamiltonian flows on surfaces
- Tea break*
- 16.30 – 17.30 **Oh, Hee** (Brown University, US & MPI, Germany)
Orbital counting for Thin groups

Friday 24 July 2009

- 09.00 - 09.50 **Snoha, Lubomir** (Matej Bel University, Slovakia & MPI, Germany)
Topology of minimal sets
- Tea break*
- 10.30 - 11.30 **Gorodnik, Alexander** (University of Bristol, UK & MPI, Germany)
Rigidity of actions on algebraic spaces
- 11.40 - 12.40 **Skau, Christian** (Norwegian University of Science and Technology & MPI, Germany)
Orbit equivalence and (ordered) K-theory
- Lunch*
- 14.00 -** **Boat trip on the Rhine**

Saturday 25 July 2009

Morning *Departure*