



Workshop on Dynamical Systems and Number Theory 2007

July 2 - 6, Strobl (Austria)

Program

supported by the Austrian Science Foundation (FWF)

Monday, July 2

- 8:45–9:00 *Opening*
- 9:00–10:00 **Benjamin Weiss**
A new look at the “Unsolved problems” of Paul R. Halmos
- 10:00–10:30 *Break*
- 10:30–11:00 **Fritz Schweiger**
2-dimensional continued fraction algorithms as dynamical systems
- 11:00–11:30 **Hitoshi Nakada**
On the non-monotonicity of the entropy of α -continued fraction transformations
- 11:30–12:00 **Paul Surer**
Three dimensional symmetric Shift Radix Systems
- 12:30 *Lunch*
- 14:30–15:30 **Jon Aaronson**
Entropy of conservative endomorphisms
- 15:30–16:00 *Break*
- 16:00–16:30 **Arno Berger**
On digits and mantissae in simple dynamical systems
- 16:30–17:00 **Christoph Aistleitner**
On the discrepancy of $\{n_k x\}$
- 17:00–17:30 **Manfred Madritsch**
Generating normal numbers over Gaussian integers
- 18:30 *Dinner*

Tuesday, July 3

- 9:00–10:00 **Jeffrey C. Lagarias**
The Skolem-Mahler-Lech theorem and dynamical systems
- 10:00–10:30 *Break*
- 10:30–11:00 **Yann Bugeaud**
On a mixed Littlewood conjecture in Diophantine approximation
- 11:00–11:30 **Johan Nilsson**
The fine structure of dyadically badly approximable numbers
- 11:30–12:00 **Jörg Schmeling**
A general concept of Diophantine approximation
- 12:30 *Lunch*
- 14:30–15:30 **Michael Keane**
A conditionally sure ergodic theorem with an application to percolation
- 15:30–16:00 *Break*
- 16:00–16:30 **Michael Hochman**
Computational aspects of symbolic dynamics
- 16:30–17:00 **Andrei Khrennikov**
 P -adic dynamical systems: cyclic and ergodic behavior
- 17:00–17:30 **András Biró**
A note on an ergodic theorem of Bourgain
- 18:30 *Dinner*

Wednesday, July 4

- 9:00–10:00 **Yakov Pesin**
Thermodynamics of towers and the liftability problem
- 10:00–10:30 *Break*
- 10:30–11:00 **Mark Pollicott**
The Selberg zeta function via one dimensional dynamics
- 11:00–11:30 **Richard Miles**
Dirichlet series for finite combinatorial rank dynamics
- 12:00 *Lunch*
- 13:10 Start of excursion to Schafberg (20 min. walk,
transfer by ship, cogwheel railway to Schafberg 1782 m)
- 19:10 Return to Strobl
- 19:30 *Dinner*

Thursday, July 5

- 9:00–10:00 **Anatole Katok**
Applications of harmonic analysis to measure rigidity for commuting automorphisms of the torus
- 10:00–10:30 *Break*
- 10:30–11:00 **Christian Steiner**
A geometric interpretation of the subword complexity
- 11:00–11:30 **Clemens Fuchs**
Substitutions and the space filling property
- 11:30–12:00 **Valérie Berthé**
Brun's continued fraction algorithm and discrete geometry
- 12:30 *Lunch*
- 14:30–15:30 **Imre Leader**
The homomorphism problem for $\beta\mathbb{N}$
- 15:30–16:00 *Break*
- 16:00–16:30 **Eli Glasner**
Enveloping semigroups in topological dynamics
- 16:30–17:00 **Marek Lampart**
Chaos on hyperspaces
- 17:00–17:30 **Fabien Durand**
Topological factors of self-similar tiling systems
- 19:00 *Conference Dinner*

Friday, July 6

9:00–10:00 **Imre Ruzsa**
Meditations on the Bohr topology

10:00–10:30 *Break*

10:30–11:30 **Vitaly Bergelson**
Some recent results and open problems in Ergodic Ramsey Theory

12:30 *Lunch*