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 $\alpha$-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 $\{n_kx\}$

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 Steineder**  
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*