

Workshop on
“Normal Numbers: Arithmetic, Computational and Probabilistic Aspects”

November 14 – 18, 2016

organized by

**Christoph Aistleitner (TU Graz), Yann Bugeaud (U Strasbourg),
Theodore Slaman (UC, Berkeley), Robert Tichy (TU Graz)**

• **Monday, November 14, 2016**

09:00 – 09:30 **Opening & Registration**

09:30 – 10:30 **Christoph Aistleitner**

Introductory talk 1: *Connections in normal number theory*

10:30 – 11:00 *coffee / tea break*

11:00 – 12:00 **Veronica Becher**

Introductory talk 2: *Constructions of normal numbers and their computation*

12:00 – 14:20 *lunch break*

14:20 – 15:00 **David H. Bailey**

On the normality of Stoneham numbers, π and $\log(2)$

15:10 – 15:50 **Manfred Madritsch**

Construction of numbers which are normal with respect to a shift-invariant measure

16:00 – 16:40 **Jean-Marie De Koninck & Imre Katai**

New approaches in the construction of normal numbers

• **Tuesday, November 15, 2016**

09:00 – 10:00 **Yann Bugeaud**

Introductory talk 3: *Normal numbers: recent results and open problems*

10:00 – 10:40 **Mini talks & introduction of young researchers**

10:40 – 11:10 *coffee / tea break*

11:10 – 11:50 **Theodore Slaman**

Normality in Different Integer Bases

11:50 – 14:20 *lunch break*

14:20 – 15:00 **Dong Han Kim**

A new complexity function of repetition and irrationality exponents

15:10 – 15:50 **Tomas Persson**

Fourier dimension and equidistribution

16:00 – 16:40 **Jan Reimann**

Irrationality Exponent, Hausdorff Dimension and Effectivization

- **Wednesday, November 16, 2016**

09:00 – 09:40 **Olivier Carton**

Finite state machines and normality

09:50 – 10:30 **Joel Rivat**

The Thue-Morse sequence along squares is normal

10:30 – 11:00 *coffee / tea break*

11:00 – 11:40 **Joseph Vandehey**

Skew-products, automata, and normality

free afternoon

- **Thursday, November 17, 2016**

09:00 – 09:40 **Teturo Kamae**

Between normal numbers and random numbers

09:50 – 10:30 **Ai-Hua Fan**

Martingale method in the study of the almost convergence of ergodic series

10:30 – 11:00 *coffee / tea break*

11:00 – 11:40 **El Houcein El Abdalaoui**

On the Erdős flat polynomials problem

11:40 – 14:20 *lunch break*

14:20 – 15:00 **Mario Neumüller**

Metrical star discrepancy bounds for subsequences of digital Kronecker-sequences

15:10 – 15:50 **Anne Bertrand-Mathis**

Normal Numbers : what we know about Pisot bases and dynamical systems

16:00 – 16:40 **Elvira Mayordomo & Jack Lutz**

Efficient Computation of Absolutely Normal Numbers

- **Friday, November 18, 2016**

09:00 – 09:40 **Hajime Kaneko**

Algebraic independence of real numbers related to beta expansion and beta representation

09:50 – 10:30 **Adrian Scheerer**

(Absolute) Normality for continued fractions and beta expansions

10:30 – 11:00 *coffee / tea break*

11:00 – 11:40 **Bill Mance**

Normality of different orders for the Cantor series expansions

All talks take place at the ESI, Boltzmann Lecture Hall!