



DVR 0065528

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 Elvira Mayordomo & Jack Lutz Efficient Computation of Absolutely Normal Numbers

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

• 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!