

# Numeration 2016 – Conference program

## Monday, May 23

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8 <sup>30</sup>	Registration
9 <sup>25</sup>	Conference opening

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*Session chair: Manfred Madritsch*

9 <sup>30</sup>	Horst Brunotte (Invited talk)
(50'+10')	<i>Algebraic Aspects of Canonical Number Systems</i>
10 <sup>30</sup>	Attila Pethő
(25'+5')	<i>Algorithmic Theoretical Questions on Canonical Number Systems and Shift Radix Systems</i>

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11 <sup>00</sup>	Coffee break
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*Session chair: Manfred Madritsch*

11 <sup>30</sup>	Attila Kovács, Péter Hudoba
(25'+5')	<i>Some Improvements on Number Expansion Computations</i>
12 <sup>00</sup>	Dávid Bóka, Péter Burcsi
(25'+5')	<i>Reconstruction of Matrix-Based Numeration Systems from Some Expansions</i>
12 <sup>30</sup>	Daniel Krenn
(25'+5')	<i>From Redundant Digit Expansions via Continued Fractions to (Non-)Minimal Expansions</i>

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13 <sup>00</sup>	Lunch
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*Session chair: Attila Pethő*

15 <sup>00</sup>	Christoph Bandt
(25'+5')	<i>Kneading Sequences, Bernoulli Convolutions, and Beta-Numeration</i>
15 <sup>30</sup>	Wolfgang Steiner
(25'+5')	<i>Permutations and Negative Beta-Shifts</i>

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16 <sup>00</sup>	Coffee break
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*Session chair: Attila Pethő*

16 <sup>30</sup>	Christiane Frougny, Edita Pelantová
(25'+5')	<i>Beta-Representations of 0 and Pisot Numbers</i>
17 <sup>00</sup>	Marta Brzicová, Christiane Frougny, Edita Pelantová, Milena Svobodová
(25'+5')	<i>On-Line Multiplication and Division in Number Systems with Complex Bases</i>

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18 <sup>00</sup>	Welcome drink
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## Tuesday, May 24

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*Session chair: Kevin Hare*

9<sup>00</sup> Artūras Dubickas (Invited talk)  
(50'+10') *Pisot Numbers and Their Conjugates*

10<sup>00</sup> Jonas Jankauskas  
(25'+5') *Pisot–Salem Numbers, Interlacing and {0,1}-Words*

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10<sup>30</sup> Coffee break

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*Session chair: Kevin Hare*

11<sup>00</sup> Johannes Schleisnitz  
(25'+5') *Distribution Modulo 1 and the Cardinality Gap Phenomenon*

11<sup>30</sup> Tomáš Vávra  
(25'+5') *Eventually Periodic Representations in Positional Number Systems*

12<sup>00</sup> Jean-Louis Verger-Gaugry  
(25'+5') *On Height One Trinomials and Limit Dynamical Zeta Functions*

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12<sup>30</sup> Lunch

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*Session chair: Edita Pelantová*

14<sup>30</sup> Nikita Sidorov (Invited talk)  
(50'+10') *Self-Affine Sets: Topology, Uniqueness, Simultaneous Expansions*

15<sup>30</sup> Francesco Dolce  
(25'+5') *Return Words and Palindromes in Specular Sets*

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16<sup>00</sup> Coffee break

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## Wednesday, May 25

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*Session chair: Christiane Frougny*

9<sup>00</sup> David Matula (Invited talk)  
(50'+10') *Freezing Arithmetic Algorithms into Foundational Number Representation Theorems*

10<sup>00</sup> Jordan Emme, Alexander Prikhodko  
(25'+5') *On the Density of Sets Defined by Sum-of-Digit Function in Base 2*

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10<sup>30</sup> Coffee break

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*Session chair: Christiane Frougny*

11<sup>00</sup> Hirohito Inoue, Shoichi Kamada, Koichiro Naito, Keisuke Shiromoto  
(25'+5') *Simultaneous Approximation Problems and Knapsack Cryptosystems in  $p$ -Adic Numberlands*

11<sup>30</sup> Radhakrishnan Nair  
(25'+5') *On Distribution of Subsequences of the Natural Numbers on the  $p$ -Adic Integers*

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19<sup>00</sup> Conference dinner

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## Thursday, May 26

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*Session chair: Wolfgang Steiner*

- 9<sup>00</sup> Simon Baker  
(25'+5') *Unique Expansions and Intersections of Cantor Sets*
- 9<sup>30</sup> William Mance  
(25'+5') *Normality of Different Orders for the Cantor Series Expansions*
- 10<sup>00</sup> Rafael Alcaraz Barrera  
(25'+5') *Topological Transitivity and Entropy Unique Beta-Expansions*
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10<sup>30</sup> Coffee break

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*Session chair: Wolfgang Steiner*

- 11<sup>00</sup> DoYong Kwon  
(25'+5') *Sturmian Word and Cantor Set Arising from Unique Expansions over Ternary Alphabets*
- 11<sup>30</sup> Kan Jiang  
(25'+5') *Multiple Expansions of Real Numbers with Digits Set  $\{0, 1, q\}$*
- 12<sup>00</sup> Vilmos Komornik, Marco Pedicini  
(25'+5') *Critical Bases for Ternary Alphabets*
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12<sup>30</sup> Lunch

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*Session chair: Petr Kůrka*

- 14<sup>30</sup> Anne Bertrand-Mathis  
(25'+5') *Rauzy Tilings in the Light of Uniform Distribution:  $+\beta$  Case and  $-\beta$  Case*
- 15<sup>00</sup> Bernd Sing  
(25'+5') *Exploring the Intersection of the Pieces of Rauzy Fractals*
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15<sup>30</sup> Coffee break

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*Session chair: Petr Kůrka*

- 16<sup>00</sup> Manfred Madritsch  
(25'+5') *The Hausdorff Dimension of Non-Normal Numbers*
- 16<sup>30</sup> Kevin Hare  
(25'+5') *Base  $d$  Expansions with Digits  $0$  to  $q - 1$*
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## Friday, May 27

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*Session chair: Marco Pedicini*

- 9<sup>00</sup> Aviezri S. Fraenkel  
(25'+5') *Numeration Systems and Their Uses*
- 9<sup>30</sup> Lukas Spiegelhofer, Michael Walner  
(25'+5') *Divisibility of Binomial Coefficients by Powers of Two*
- 10<sup>00</sup> Tamás Krutki, Gábor Nagy  
(25'+5') *On Simultaneous Number Systems with 3 Bases*
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10<sup>30</sup> Coffee break

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*Session chair: Marco Pedicini*

- 11<sup>00</sup> Paul Surer  
(25'+5') *Substitutions, Shifts of Finite Type, and Numeration*
- 11<sup>30</sup> Maria Rita Iacò  
(25'+5') *Two Properties Related to Beta-Expansions*
- 12<sup>00</sup> Štěpán Starosta  
(25'+5') *Continued Fractions and Spectra of Certain Operators*
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12<sup>30</sup> Conference closing

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