



# **Analytic and Probabilistic Methods in Number Theory**

The Sixth International Conference

Palanga, Lithuania,  
September 11-17, 2016

Palanga ♦ 2016

VILNIUS UNIVERSITY  
FACULTY OF MATHEMATICS AND INFORMATICS  
LITHUANIAN MATHEMATICAL SOCIETY

**Analytic and Probabilistic Methods  
in Number Theory**

The Sixth International Conference  
Palanga, Lithuania, 11-17 September 2016

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- N. Moshchevitin (Moscow, Russia)*
- Y. Nesterenko (Moscow, Russia)*
- A. Schinzel (Warsaw, Poland)*
- J. Steuding (Wurzburg, Germany)*
- P. Varbanets (Odesa, Ukraine)*

## PROGRAMME

### 09.12 MONDAY

10.00 – 10.10                    **Opening ceremony**

#### **Plenary lectures. Chairman A. Dubickas**

10.10 – 10.50                    **A. Schinzel.** On some conjectures concerning primes

10.55 – 11.35                    **K. Matsumoto.** On the zeros of multiple zeta-functions

11.35 – 11.55                    Coffee break

#### **Plenary lectures. Chairman K. Matsumoto**

11.55 – 12.35                    **N. Moshchevitin.** Irrationality measure functions

12.40 – 13.00                    **A. Ustinov.** Double Somos-4

13.00 – 15.00                    Lunch

#### **Lectures. Chairman A. Ustinov**

15.00 – 15.30                    **M. Rehberg.** A discrepancy estimate for certain  $\alpha$ -points of the Riemann zeta function

15.35 – 16.05                    **S. Saito.** Mertens' theorems for Galois extensions of number fields

16.10 – 16.30                    **T. Srichan.** New summation formulas for arithmetical functions.

#### **Lectures. Chairman J. Andersson**

16.40 – 17.00                    **R. Kačinskaitė.** A mixed joint functional independence of a class of zeta-functions

17.00 – 17.15                    **A. Mačiulis.** On the distribution of common primes

17.15 – 17.30                    **G. Bareikis.** Modeling beta distribution with the multiplicative functions

17.30 – 17.45                    **V. Stepas.** Variance of additive functions defined on random assemblies

## 09.13 TUESDAY

### Plenary lectures. Chairman G. Stepanauskas

- 10.00 – 10.40      **H. Mishou.** Joint discrete value distribution of Dirichlet  $L$ -functions at horizontal shift of non-trivial zeros of the Riemann zeta function
- 10.45 – 11.15      **O. German.** Diophantine exponents of lattices and multidimensional continued fractions
- 11.15 – 11.35      Coffee break

### Plenary lectures. Chairman N. Moshchevitin

- 11.35 – 12.15      **L. Pańkowski.** Joint universality of  $L$ -functions
- 12.20 – 13.00      **M. Suzuki.** On the distributions for the zeros of the Riemann  $\xi$ -function on vertical lines
- 13.00 – 15.00      Lunch

### Lectures. Chairman O. German

- 15.00 – 15.30      **K. Gierszewski.** Omega result for the arithmetic Möbius function of elliptic curves
- 15.35 – 15.55      **C. Aistleitner.** Large values of the zeta function via the resonance method
- 16.00 – 16.30      **Y. Suzuki.** On prime vs. prime power pairs

### Lectures. Chairman S. Saito

- 16.35 – 17.05      **A. I. Suriajaya.** On the distribution of zeros of the first derivative of Dirichlet  $L$ -functions
- 17.10 – 17.25      **J. Šiaulyš, G. Stepanauskas.** The Poisson distribution in number theory
- 17.40 – 17.55      **V. Stakėnas.** The Cantor expansions and arithmetical functions
- 17.55 – 18.10      **L. Meška.** Modifications of universality theorems

## 09.14 WEDNESDAY

- 9.00      **Excursion to Nida**

## 09.15 THURSDAY

### Plenary lectures. Chairman R. Garunkštis

- 10.00 – 10.40            **J. Steuding.** Sharing values
- 10.45 – 11.20           **V. Bernik, F. Götze, A. Husakova.** Distribution of algebraic and integral algebraic numbers close to smooth curves
- 11.20 – 11.40            Coffee break

### Plenary lectures. Chairman J. Steuding

- 11.40 – 12.10           **J. Andersson.** Voronin universality in several complex variables
- 12.15 – 12.45           **E. Manstavičius.** The Poisson-Dirichlet process in number theory and combinatorics
- 12.50 – 13.10           **A. Illarionov.** Distribution of facets for multidimensional Klein polyhedra
- 13.10 – 15.00            Lunch

### Lectures. Chairman A. Mačiulis

- 15.00 – 15.20           **B. M. Phong.** Arithmetical functions and functional equations
- 15.20 – 15.35           **M. Avdeeva.** Elliptic systems of sequences
- 15.35 – 15.50           **M. Monina.** A multiplicative method of construction of integer Somos-8 and Somos-9 sequences

### Lectures. Chairman Ł. Pańkowski

- 16.00 – 16.20           **M. Cenkci.** Some remarks on hyperharmonic numbers
- 16.20 – 16.35           **R. Macaitienė.** On joint discrete universality of Dirichlet  $L$ -functions
- 16.35 – 16.50           **L. Žvinytė.** Discrete uniform limit laws for additive functions
- 16.55 – 17.10           **G. Sh. Tsitsiashvili, N. V. Markova.** Synergetic effects in multiserver queuing systems with Erlang input flow
- 17.10 – 17.25           **A. Dubickas.** Salem numbers as unusual Mahler measures
- 19.00**                    **Conference dinner**

## 09.16 FRIDAY

### Plenary lectures. Chairman E. Manstavičius

- 10.00 – 10.20            **R. Garunkštis.** On the Speiser equivalent for the Riemann hypothesis
- 10.25 – 10.55            **G. Alkauskas.** Projective superflows
- 11.00 – 11.30            **V. Zacharovas.** On the exponential decay property of the characteristic function of the quicksort distribution
- 11.30 – 11.50            Coffee break

### Lectures. Chairman M. Suzuki

- 11.50 – 12.10            **T. Lachmann.** Empty boxes in lattices
- 12.10 – 12.30            **F. Götze, D. Kaliada, D. Zaporozhez.** Distribution of discriminants of integral polynomials and real integral algebraic numbers
- 12.30 – 12.45            **D. Šiaučiūnas.** Weighted universality of periodic zeta-functions
- 12.45 – 13.00            **A. Kudzin, D. Vasilyev.** On the dependence of the number of fixed height polynomials on the value of the derivative
- 13.00 – 15.00            Lunch

### Lectures. Chairman V. Bernik

- 15.00 – 15.20            **M. Technau.** On the maximal order of some arithmetic functions
- 15.20 – 15.35            **R. Tamošiūnas.** Zeros and  $a$ -values of periodic zeta-functions
- 15.40 – 16.00            **A. Grigutis.** On a positivity property of the Riemann  $\xi$ -function
- 16.05 – 16.25            **I. Belov.** Limit theorems for coefficients of modified Borwein's method for the calculation of the Riemann zeta-function values
- 16.25 – 16.40            **A. Laurinčikas.** Zeros of the Riemann zeta-function and universality
- 16.50                    **Problem session. Chairman A. Schinzel**
- 18.00                    **Closing**

### List of participants

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