

**Program of the conference “Analytic methods in Number Theory, Probability and Statistics”  
dedicated to the 100th anniversary of academician Yu.V.Linnik’s birth**

**September 14-18, 2015**

**Monday, September, 14 (PDMI, Fontanka, 27)**

**9.00 – 11.00 Registration** , 1st floor

**Plenary lectures.** 1st floor

Chairman Yu. Nesterenko

11.00 – 11.50 Ibragimov I.A. (St.Petersburg ). Linnik ‘s work in Number Theory, Probability and Statistics.

11.50 – 12.30 *Coffee Break*

12.30 – 13.20 Shkredov Ilya (Steklov Inst. of Math., Moscow), Multiplicative subgroups and sum-products.

13.30 – 14.20 Zhan Shi (Paris). Deviation properties of branching Brownian motion with selection.

**Lunch 14.20 – 16.00**

Chairman Z. Shi

16.00 – 16.50 Matiyasevich Yu.V. (Saint-Petersburg). Finite Dirichlet series with partially prescribed zeroes.

17.00 – 17.50 Pastur L.A. (Kharkov) TBA.

**18.30 Welcome Party** (PDMI)

## Tuesday, September, 15

### Section of Probability and Statistics

Euler Institute, Pesochnaya nab.,10

**Probability measures and random processes.** Morning -7 talks

9.30 - 10.00. Christoph Gerd (Magdeburg). Positive and discrete Linnik distributions, revisited.

10.00 - 10.30. Klebanov L. (Prague). What are casual stable distributions?

10.30 - 11.00. Mogulski Anatoly (Novosibirsk). Large deviations for processes with independent increments.

11.00 - 11.30. Beghin Luisa (Rome). Levy processes with Poisson and Gamma times.

11.30 - 12.00 *Coffee break*

#### **Random matrices.**

12.00 - 12.30. Houdre Christian (Atlanta, USA). Asymptotics in Sequence Comparison and Maximal Eigenvalues of Gaussian Random Matrices.

12.30 - 13.00. Tikhomirov Alexander (Syktyvkar, Russia) On the optimal bounds for the rate of convergence in semi-circular law.

13.00 - 13.30. A.Naumov (Moscow). TBA.

**13.30 - 15.00 Lunch**

### Section of Number Theory

PDMI, Fontanka, 27

9:30 - 10:00 Korolev Maxim (Steklov Inst. of Math., Moscow), Some problems concerning Hardy's Z-function.

10:10 - 10:40 Xylouris Triantafyllo (University Bonn), Linnik's constant can be taken smaller than 5.

10:50 - 11:20 Nesterenko Yuri (Lomonosov Moscow State Univ.), Rational approximations to Catalan's constant.

11:30 - 12:00 *Coffee break*

12:00 - 12:30 Gorodnik Alexander (Univ. of Bristol), Randomness in Diophantine approximation.

12:40 - 13:10 Koleda Denis (Inst. of Math., Minsk), The distribution of algebraic numbers on the complex plane.

**13:30 - 15:00 Lunch**

15:00 - 18:00 Discussions

**Random structures and small deviations.** Afternoon - 6 talks

15.00-15.30. Nourdin Ivan (Luxembourg). Squared chaotic random variables: new moment inequalities with applications.

15.30-16.00 Sakhanenko A.I. (Novosibirsk). On a limiting behaviour of a conditional random walk with bounded local times.

16.00-16.30 *Coffee break*

16.00-16.30 Borisov I.S. (Novosibirsk) Multiple stochastic integrals and random series.

16.30-17.00 Viitasaari Lauri (Saarbruecken, Germany). A general approach to small deviation via concentration of measures.

17.30-18.00 Manstavicius Eugenijus (Vilnius). Probabilities related to the cyclic structure of random permutations.

18.00-18.30 Bloznelis Mindaugas (Vilnius). Random intersection graphs.

**Wednesday, September, 16**

**Excursions to choose:**

**9.30 – 13.30 Visit to the tomb of Yu.V. Linnik. Starts from the Andersen hotel**

**9.30 – 13.00 City tour. Starts from the Andersen hotel**

## Section of Probability and Statistics

PDMI, Fontanka, 27, 2d floor, room 311

**13.30 - 15.00 Lunch**

### Stochastic analysis and related topics. 7 talks

15.00 - 15.30 Nazarov A.I., Petrova Yu.V. (SPb). The small ball asymptotics in  $L_2$ -norm for the Kac-Kiefer-Wolfowitz processes.

15.30 - 16.00. Sottinen Tommi (Vaasa, Finland). Fredholm representation of Gaussian processes with applications.

16.00 - 16.30. Marinucci Domenico (Rome). The geometry of random spherical eigenfunctions.

16.30 - 17.00 Holevo A.S. (Moscow). Quantum Gaussian transition operators: characterization and an optimal property.

17.00 – 17.30 *Coffee break*

17.30 – 18.00 Bulinski A.V. (Moscow). Stability problems related to variable selection.

18.00 – 18.30 Platonova M. (Saint-Petersburg). A probabilistic representation of the Cauchy problem solution for an evolution equation with the Riemann-Liouville operator.

18.30 – 19.00 Masalov V. (Petrozavodsk). Optimal stopping problem with incomplete information.

## Section of Number Theory

Euler Institute, Pesochnaya nab., 10

**13.00 - 14.30 Lunch**

14:30 - 15:00 Laurincikas Antanas (Vilnius Univ.), A limit theorem of the Elliott type for twists of L-functions of elliptic curves.

15:10 - 15:40 Proskurin Nikolai V. (POMI RAN, St.-Petersburg), Some numerical observation on distribution of zeros of L-functions

15:50 - 16:20 Daniel Fiorilli, (University of Ottawa, Canada), On Vaughan's approximation.

16:30 - 17:00 *Coffee break*

17:00 - 17:30 Ustinov Alexey (Inst. of Appl. Math., Khabarovsk), On Voronoi - Minkowski 3D continued fractions

17:40 - 18:10 Frolenkov Dmitrii (Steklov Inst. of Math., Moscow), A strengthening of Porter's result.

**Thursday, September, 17**

**Section of Probability and Statistics**

Euler Institute, Pesochnaya nab., 10

**Section of Number Theory**

PDMI, Fontanka, 27

**Random processes and random structures.** Morning - 7 talks.

9.30 - 10.00 Petrov F.V. ( Saint-Petersburg). Characterization of functional classes via matrix distributions.

10.00 - 10.30. Orsingher Enzo (Rome). Random flights and fractional Mc Bride operators.

10.30 - 11.00. Zuev S. (Goteborg). Thinning and branching stable point processes.

11.00 - 11.30 Ulyanov V.V. (Moscow). On asymptotic analysis of symmetric functions

11.30 - 12.00 *Coffee break*

12.00 - 12.30 Davydov Youri ( Lille). On convex hull of fractional brownian motion and strictly stable processes.

12.30 - 13.00 . Izyumtseva O. (Kiev). Self-intersection local time for Gaussian processes and Hilbert-valued functions.

13.00 - 13.30 Konstantopoulos Takis (Uppsala, Sweden). Extendibility properties of finitely exchangeable probability measures.

**13.30 – 15.00 Lunch**

9:30 - 10:00 Chubarikov Vladimir, (Lomonosov Moscow State Univ.), The mean-value theorem for arithmetical sums.

10:10 - 10:40 Bykovskii V., (Inst. of Appl. Math., Khabarovsk), The second moment of L-functions of holomorphic cusp forms of level N.

10:50 - 11:20 Monina Mariia (Inst. of Appl. Math., Khabarovsk), The Eichler-Shimura relations for theta functions.

11:30 - 12:00 *Coffee break*

12:00 - 12-30 Einsiedler Manfred ( Zuerich). Joint equidistribution of primitive integer points on spheres and the shape of their orthogonal complement.

12:40 - 13:10 Konyagin Sergei (Steklov Inst. of Math., Moscow), On the smallest simultaneous powers nonresidue modulo a prime.

**13.30 - 15.00 Lunch**

15:00 - 18:00 Discussions

**Section A. Statistical procedures and distributions.** Thursday afternoon: 6 talks

15.00 - 15.30 Chibisov D.M. (Moscow). Asymptotic optimality of the chi-square test.

15.30 - 16.00 Bogachev V.I. (Moscow). Convergence in law of infinite-dimensional polynomials and related estimates.

16.00 - 16.30 *Coffee break*

16.30 - 17.00 K. Borovkov (Melbourne). On the asymptotic behaviour of a dynamic version of the Neyman contagious point process.

17.00 – 17.30 Mikosch Thomas (Copenhagen). Nagaev-type large deviations for heavy-tailed processes.

**Section B. Stochastic flows and related topics.** Thursday Afternoon, 6 talks

15.00 -15.30 Dorogovtsev A. ( Kiev). Stochastic calculus for Brownian flows.

15.30 - 16.00 Glinyannaya E. (Kiev). Discrete-time stochastic flows.

16.00 - 16.30 *Coffee break*

16.30 - 17.00 Vovchanski M. (Kiev). Perturbations of singular stochastic flows on the real line.

17.00 - 17.30 Kusnetsov Vassily ( Kiev). Random braids formed by trajectories of stochastic flows.

<p>17.30 - 18.00 Korenovska Iaroslava (Kiev). Random maps and widths of compact sets in Hilbert space.</p> <p>18.00 - 18.30 Riabov Georgii (Kiev) TBA.</p>	
<p><b>19.00 Conference Dinner in the Andersen hotel</b></p>	
<p style="text-align: center;"><b>Friday, September, 18</b></p>	
<p style="text-align: center;"><b>Section of Probability and Statistics</b> PDMI, Fontanka, 27, 2d floor, room 311</p>	<p style="text-align: center;"><b>Section of Number Theory</b> Euler Institute, Pesochnaya nab., 10</p>
<p><b>Queueing theory and limit theorems.</b> Friday morning: 7 talks</p> <p>9.30 - 10.00 Foss Sergei (Novosibirsk). On the tail asymptotics in generalized Jackson networks with heavy-tailed distributions of service times.</p> <p>10.00 - 10.30. Norros Ilkka (VTT, Finland). On the ergodicity of mutual service processes in Euclidean space.</p> <p>10.30 - 11.00 Shevtsova I. (Moscow) . TBA.</p> <p>11.00 - 11.30 Lotov V.I. (Novosibirsk). On the distribution of excess over high level.</p> <p>11.30 -12.00 <i>Coffee break</i></p> <p>12.00 – 12.30 Korolev V. Yu. (Moscow). TBA</p> <p>12.30 – 13.00 Zacharovas Vytas (Vilnius). Limit laws of the coefficients of polynomials with only unit roots.</p> <p>13.00 – 13.30 Belopolskaya Ya. I. (Saint-Petersburg). Stochastic models of biological processes.</p>	<p>9:30 - 10:00 Rezvyakova Irina (Steklov Inst. of Math., Moscow), On Selberg's mollification method in the theory of L-functions.</p> <p>10:10 - 10:40 Rakhmonov Zarullo (Dushanbe University) Short exponential sums and their applications</p> <p>10:50 - 11:20 Zhuravlev Vladimir (Vladimir State University), Induced bounded remainder sets</p> <p>11.30 -12.00 <i>Coffee break</i></p> <p>12:00 - 12:30 Illarionov Andrei (Inst. of Appl. Math., Khabarovsk) Klein polyhedral.</p> <p>12:40 - 13:10 Husakova Hanna (Inst. of Math., Minsk), On algebraic integers in short intervals and near the smooth curves.</p>

**13.30 - 15.00 Lunch**

**Miscellaneous.** Friday afternoon 4 talks.

15.00 - 15.30 Virchenko Yu., Pham Minh Tuan ( Belgorod, Russia). Bifurcation of the stationary markovian process being the model of chemical reactions.

15.30 - 16.00 *Coffee break*

**Closure of the Conference**

**13:30-15:00 Lunch**

15:00 - 15:30 German Oleg (Lomonosov Moscow State Univ.), On periodic continued fractions with palindromic periods

15:40-16:10 Stepanov S.A. (IITP RAS, Moscow), On the structure of Artin's L-functions.