

# X International Petrozavodsk conference “Probabilistic methods in discrete mathematics”

Petrozavodsk, May 22 – 26, 2019

## *List of accepted presentations*

1. **Aksanova Elena A., Sokolov Andrey V.** (IAMR Karelian Research Centre RAS, Petrozavodsk)  
On optimal control of a parallel priority queue
2. **Alekseev Aleksey K.** (Moscow Institute of Physics and Technology, Dolgoprudny)  
Aposterior estimate of the discretization error on the solution ensemble and the effect of concentration measure
3. **Alexeev Nikita V.** (ITMO University, St. Petersburg)  
Number of trees in a random graph and Fuss-Catalan numbers
4. **Berezin Timur V.** (St. Petersburg State University, Saint-Petersburg)  
Embeddings of graphs with rotations in orientable surfaces
5. **Borodina Alexandra V.** (IAMR Karelian Research Centre RAS, Petrozavodsk), **Avrachenkov Konstantin E.** (INRIA Sophia Antipolis, France), **Necheporenko Nikita A.** (Petrozavodsk State University, Petrozavodsk)  
Splitting method for simulation in large graphs
6. **Cheplyukova Irina A.** (IAMR Karelian Research Centre RAS, Petrozavodsk)  
On maximum vertex degree in the configuration model
7. **Cherkashin Danila D.** (Moscow Institute of Physics and Technology, Dolgoprudny)  
Inducibility of paths in hypergraph colorings
8. **Chernov Ilya A., Ivashko Evgeny E.** (IAMR Karelian Research Centre RAS, Petrozavodsk)  
Optimal search with recognition error probability
9. **Chuprunov Aleksey N., Chickrin D.E., Kokunin P.A.** (Kazan Federal University, Kazan)  
Limit theorems in non-homogenous generalized allocation scheme
10. **Davydov Yuri A., Rotar V.** (St. Petersburg State University, Saint-Petersburg)  
Remarks on asymptotical independence
11. **Demidovich Yury A.** (Moscow Institute of Physics and Technology, Dolgoprudny)  
Property  $B_k$ -problem for uniform simple hypergraphs
12. **Efimov Dmitry B.** (Komi Science Centre, Ural Branch RAS, Syktyvkar)  
Probabilistic method for estimating hafnian by the example of one class of Toeplitz matrices
13. **Gusev Vasily V.** (IAMR Karelian Research Centre RAS, Petrozavodsk)  
Two-step pricing game on a graph
14. **Ivanov Alexander V.** (IAMR Karelian Research Centre RAS, Petrozavodsk)  
On approximation of probability measures by measures with finite support
15. **Ivashko Anna A.** (IAMR Karelian Research Centre RAS, Petrozavodsk)  
Best-Choice game with incomplete information and two stops
16. **Kabatyansky Grigory A., Egorova E.E.** (Skoltech, Moscow)  
Colored cover-free set systems and their generalization

17. **Katona Gyula O.H.** (**Rényi Alfréd Institute of Mathematics Hungarian Academy of Sciences, Budapest**)  
The domination number of the graph defined by two levels of the  $n$ -cube
18. **Kharin Yuri S.** (**Belarusian State University, Minsk**)  
Probabilistic-statistical analysis of discrete time series: models and methods
19. **Khvorostyanskaya Elena V.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
On second degrees of configuration graph vertices
20. **Kolnogorov Alexander V.** (**Novgorod State University, Veliky Novgorod**)  
Universal strategies in one-armed bandit problem and optimization of big data processing
21. **Kolchin Andrei V.** (**MADI State Technical University, Moscow**)  
Some aspects of the development of a generalized allocation scheme
22. **Kruglik Stanislav A.** (**Skoltech, Moscow**)  
On secret sharing schemes in distributed storage systems
23. **Kruglov Vasiliy I., Mikhailov Vladimir G.** (**Steklov Mathematical Institute RAS, Moscow**)  
Inequalities for the rank of a random binary matrix with independent rows of given weights
24. **Leri Marina M.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
Some structure characteristics of power-law configuration graphs
25. **Mazalov Vladimir V.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
Game-theoretic analysis of communication networks
26. **Moiseeva Svetlana P., Bobkova O.S., Nazarov A.A.** (**Tomsk State University, Tomsk**)  
Study of the MMPP flow in conditions of extremely frequent and extremely rare state changes
27. **Morozova Taisia E.** (**Petrozavodsk State University, Petrozavodsk**), **Morozov Evsey V.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**), **Ioannis Dimitriou** (**University of Patras, Greece**)  
A multiclass retrial system with coupled orbits and mixed service interruptions
28. **Moskin Nikolay D., Rogov Aleksandr A.** (**Petrozavodsk State University, Petrozavodsk**)  
Attributes of distribution of vertex degrees of graph-theoretic models of texts
29. **Nekrasova Ruslana S.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
Multi-class model with general retrials: stability analysis by simulation
30. **Nikitina Natalia N.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
A potential in the congestion game for virtual drug screening based on Desktop Grid
31. **Nikitina Natalia N., Mazalov Vladimir V., Pechnikov Andrey A.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
On communities in communication graphs
32. **Pavlov Yuri L.** (**IAMR Karelian Research Centre RAS, Petrozavodsk**)  
On clustering coefficient of configuration graphs
33. **Polyanskii Alexandr A., Nilov F.K.** (**Moscow Institute of Physics and Technology, Dolgoprudny**)  
Sylvester-Gallai-type theorems for vectors
34. **Popova Svetlana N.** (**Moscow Institute of Physics and Technology, Dolgoprudny**)  
Spectra for bounded quantifier depth first-order formulae for random hypergraphs

35. Raigorodskii Andrei M. (Moscow Institute of Physics and Technology, Dolgoprudny)  
Colorings of random subgraphs
36. Rettieva Anna N. (IAMR Karelian Research Centre RAS, Petrozavodsk)  
Dynamic multicriteria games with random horizons
37. Rumyantsev Alexander S. (IAMR Karelian Research Centre RAS, Petrozavodsk), Garimella Rama Murthy (Mahindra Ecole Centrale, Hyderabad, India)  
Steady-state analysis of cognitive radio model by state space expansion
38. Sali Attila (Rényi Alfréd Institute of Mathematics Hungarian Academy of Sciences, Budapest), Boyvalenkov Peter (Institute of Mathematics and Informatics Bulgarian Academy of Sciences, Sofia)  
New bounds on Armstrong codes
39. Savelov Maksim P. (Moscow State University + Moscow Institute of Physics and Technology, Moscow + Dolgoprudny)  
The law of large numbers for the number of non-appeared non-intersecting chains in Bernoulli scheme
40. Savelyev Lev Ya. (Novosibirsk State University, Novosibirsk)  
Structural and stochastic properties of special graphs
41. Semchankau Aliaksei S. (Moscow State University, Moscow)  
Multiplicative graphs and their application to the equation  $n - \varphi(n) = c$
42. Semenov Alexander S. (Moscow State University, Moscow), Shabanov Dmitry A. (Moscow Institute of Physics and Technology, Dolgoprudny)  
On the weak chromatic number of random hypergraphs
43. Serov Aleksandr A., Zubkov Andrey M. (Steklov Mathematical Institute RAS, Moscow)  
The power of a subset image in composition of random mappings of a finite set
44. Simonovits Miklós (Rényi Alfréd Institute of Mathematics Hungarian Academy of Sciences, Budapest)  
Stability methods in extremal graph theory
45. Shabanov Dmitry A. (Moscow Institute of Physics and Technology, Dolgoprudny)  
Probability thresholds for coloring properties of random graphs and hypergraphs
46. Skopenkov Arkadiy B. (Moscow Institute of Physics and Technology + Moscow State University, Dolgoprudny + Moscow)  
Invariants of graph drawings in the plane
47. Sokolov Andrey V. (IAMR Karelian Research Centre RAS, Petrozavodsk), Lazutina Anna A. (Moscow State University, Moscow)  
On optimal control of deques in two-level memory
48. Stafeev Sergey V. (IAMR Karelian Research Centre RAS, Petrozavodsk)  
Parametric identifiability of structural equation models with latent variables
49. Tikhomirov Alexandre N. (Komi Science Centre of Ural Branch RAS, Syktyvkar)  
Local limit theorems for sample covariance matrices
50. Vlasova Ksenia A., Kornikov Vladimir V. (St. Petersburg State University, Saint-Petersburg)  
The study of the Neyman type A, B and C distribution modality zones
51. Voitishek Anton V., Bulgakova Tatiana E. (ICM&MG of Siberian Branch RAS + Novosibirsk State University, Novosibirsk)  
On the use of beta and gamma distributions in numerical randomized models

52. **Yashunsky Alexey D. (Keldysh Institute of Applied Mathematics RAS, Moscow)**  
On necessary conditions for the algebraic approximation of random variables on finite sets
53. **Zaporozhets Dmitry N., Kabluchko Zakhar (St Petersburg Department of Steklov Mathematical Institute RAS, Saint-Petersburg)**  
Angles of random polyhedra
54. **Zhukova Ksenia A. (IAMR Karelian Research Centre RAS, Petrozavodsk)**  
Large deviations in single-server retrial queues
55. **Zubkov Andrei M. (Steklov Mathematical Institute RAS, Moscow)**  
Limit theorems connected with algorithms of random elements of groups construction