XXXVI International Seminar on Stability Problems for Stochastic Models
Petrozavodsk, June 21 -- 25, 2021

Preliminary Program
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Monday, 21 June, 2021

Morning session. Chair: V. Korolev

11.00-11.15
Opening ceremony. Speakers: V. Korolev, V. Mazalov, E. Morozov

11.15-12.15
Welcome to Karelia! Sightseeing movie.

12.15-12.45
Nagaev Sergey V. (Sobolev Institute of Mathematics, Novosibirsk), **Chebotarev Vladimir I.** (Far Eastern Branch of RAS / Computing Center, Khabarovsk)
On the approximation error of the tails of the binomial distribution by these of the Poisson law.

12.45-13.15
Kolokoltsov Vassily N. (Warwick University, UK)
Continuous time random walks modeling of quantum measurement and fractional equations of quantum stochastic filtering and control

13.15-15.00
Lunch break

Afternoon session. Chair: Youri Davydov

15.00
Davydov Youri A. (St. Petersburg State University / Mathematics and Computer Sciences)
Limit theorems for random flights.

15.20
Ayvazyan Sagak A. (Moscow State University / Faculty of CMC)
On characteristic function estimation for weighted sums of random vectors.

15.40
Sobolev V. N. (Moscow State University), **Kondratenko Alexander E.** (Moscow State University / Faculty of Mechanics and Mathematics)
Generalization of one result of V. V. Senatov of characteristic functions of convolutions of probability.

16.00
Monakhov Mikhail M. (Moscow State University / Faculty of CMC)
Cornish-Fisher expansions for distributions of generalised Hotelling-type statistics based on random size samples.

16.20-16.40
Alhayek Nour (Kazan Federal University)
On the running maxima of some φ-sub-Gaussian random double arrays.

16.40-16.50
Break

Evening session. Chair: Mohammed Al-Nator

16.50-17.10
Ivanov Aleksandr V. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On quantization dimensions of idempotent probability measures.

17.10-17.30
Al-Nator Mohammed S. (Financial University under the Government of RF, Moscow), **Al-Nator Sofya V. (**Financial University under the Government of RF, Moscow)
Accumulative pension schemes with limited inheritance period and various decrement factors.

17. 30-17.50
Al-Nator Mohammed S. (Financial University under the Government of RF, Moscow), **Al-Nator Sofya V.** (Financial University under the Government of RF, Moscow), **Kasimov Y. F.** (Financial University under the Government of RF, Moscow)
Extreme weights for constant proportion index portfolio strategies.

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Tuesday, 22 June, 2021

Morning session. Chair: Abdurakhim Abdushukurov

11.00-11.30
Dorofeeva A. V. (Moscow State University / Faculty of CMC), **Korolev Victor Yu.** (Moscow State University / Faculty of CMC), **Zeifman Alexander I.** (Vologda State University)
Bounds for the accuracy of invalid normal approximation.

11.30-12.00
Abdushukurov Abdurakhim A. (Moscow State University -- Tashkent Branch, Uzbekistan), **Bozorov S. B.** (Gulistan State University, Uzbekistan)
Estimation of distribution function based on presmoothed relative risk function.

12.00-12.20
Abdushukurov Abdurakhim A. (Moscow State University -- Tashkent Branch, Uzbekistan), **Mansurov Dilshod R.** (Navoi State Pedagogical Institute, Uzbekistan)
Parametric estimation of exponential distribution in informative model of random censorship from both sides.

12.20-12.40
Goncharenko Miroslav B. (Moscow Center of Fundamental and Applied Mathematics), **Zakharova Tatyana V.** (Moscow State University / Faculty of CMC)
Statistical methods of magnetoencephalographic signals processing.

12.40-15.00
Lunch break

Afternoon session. Chair: Oleg Shestakov

15.00-15.20
Kudryavtsev Alexey A. (Moscow State University / Faculty of CMC), **Shestakov Oleg V.** (Moscow State University / Faculty of CMC), **Vorontsov M. O.** (Moscow State University)
On the properties of estimates for the gamma-exponential distribution parameters.

15.20-15.40
Palionnaya Sofia I. (Moscow State University / Faculty of CMC), **Shestakov Oleg V.** (Moscow State University / Faculty of CMC)
Asymptotic behavior of a risk estimate for the FDR-method in the problem of multiple hypothesis testing.

15.40-16.00
Muradov Rustamjon S. (Namangan Institute of Engineering and Technology, Uzbekistan)
On copula type estimators of survival and mean residual life functions under random right censored observations at fixed covariate values.

16.00-16.20
Ragozin Ilya A. (HSE University / Department of Mathematics, Saint-Petersburg)
New scale-free goodness-of-fit tests for Rayleigh distribution based on some characterization and some special property.

16.20-16.30
Break

Evening session. Chair: Igor Poloskov

16.30-16.50
Yesbay Yerkyn N. (Moscow State University -- Kazakhstan branch, Nur-Sultan)
Distance covariance independence test and its application for Markov chains.

16.50-17.10
Astaf'ev Sergey N. (Petrozavodsk State University), **Rumyantsev Alexander S.** (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On statistical stability analysis of discrete-time Markov chains.

17.10-17.30
Poloskov Igor E. (Perm State University)
Symbolic-numeric scheme for calculating the moment characteristics of the state vector of stochastic differential-difference system.

17.30-18.00
Fomichev V. V. (Moscow State University, Institute for Systems Analysis RAS), **Kamenshchikov Mikhail A.** (Moscow State University, V. A. Trapeznikov Institute of Control Sciences RAS)
Steady state performance comparison of second and third order filters.

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<u>**Wednesday, 23 June, 2021**</u>

Afternoon session. Chair: Yury Khokhlov

15.00-15.30
Smirnov Sergey N. (Moscow State University / Faculty of CMC)
Structural stability of financial market models.

15.30-16.00
Rykov Vladimir V. (Gubkin Russian State University of Oil and Gas, Moscow)
On reliability of a double redundant renewable system with arbitrarily distributed units life and repair times.

16.00-16.20
Khokhlov Yury S. (Moscow State University / Faculty of CMC), **Suslov L. V.** (Moscow State University), **Sidorova O. I.** (Tver State University)
Asymptotic bounds for large buffer overflow probability.

16.20-16.40
Avrachenkov K. (INRIA, Sophia Antipolis, France), **Morozov Evsey V.** (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk), **Nekrasova Ruslana S**. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On stability of two-class retrial queue with constant retrial rates and general service times.

16.40-16.50
Break

Evening session. Chair: Alexander Rumyantsev

16.50-17.10
Morozov Evsey V. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk), **Zhukova Ksenia A.** (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
Overflow probability asymptotic in the retrial queue with general retrieval time.

17.10-17.30
Lounes Ameur M. (University of Skikda / Department of Technology, Algeria), **Rabta Boualem** (Vienna University of Economics and Business, Austria)
A functional approximation for the phase-type distributions single-server queues.

17.30-17.50
Fisak Anton A. (Moscow State University / Faculty of CMC), **Zakharova Tatyana V.** (Moscow State University / Faculty of CMC)
Asymptotically optimal arrangements of service stations for different optimality criteria.

17.50-18.10
Rogozin Stepan S. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
An application of multi-server loss system with general service times.

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Morning session. Chair: Yuri Pavlov

11.00-11.30
Pavlov Yuri L. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On asymptotics of the structure on conditional configuration graphs with bounded number of links.

11.30-12.00
Yakymiv Arsen L. (Steklov Mathematical Institute RAS, Moscow)
Random mappings with constraints on the component sizes.

12.00-12.20
Cheplyukova Irina A. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On configuration model with bounded number of edges.

12.20-12.40
Khvorostyanskaya Elena V. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On the maximum tree size in the Galton-Watson forest.

12.40-13.00
Leri Marina M. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk)
On the diameter of power-law configuration graphs.

13.00-15.00
Lunch break

Afternoon session. Chair: Alexander Sipin

15.00-15.30
Sipin Alexander S. (Vologda State University), **Kuznetsov A. N.** (Vologda State University)
Random walks for solutions of some elliptic equations with discontinuous coefficients.

15.30-15.50
Satin Yacov A. (Vologda State University), **Zeifman Alexander I.** (Vologda State University),
Kovalev I. A. (Vologda State University), **Razumchik R. V.** (Moscow Center for Fundamental and Applied Mathematics)
Ergodicity of birth and death processes on Z and double-ended queues.

15.50-16.10
Rumyantsev Alexander S. (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk),
Chakravarthy Srinivas R. (Kettering University, Flint MI, USA)
Stability of a multiclass queueing system with batch Markovian arrival process.

16.10-16.40
Lovas Attila (Alfr'ed R'enyi Institute of Mathematics, Budapest, Hungary), **R'asonyi Mikl'os**
(Budapest University of Technology and Economics, Hungary)
On the stability of some queuing models.

16.40-16.50
Break

16.50-17.10
Peshkova Irina V. (Petrozavodsk State University), **Morozov Evsey V.** (Institute of Applied Mathematical Research KRC RAS, Petrozavodsk), **Maltseva M. A.** (Petrozavodsk State University)
On estimation of extremal index in queueing systems with mixture service times.

17.10-17.30
Sztrik Janos (University of Debrecen / Faculty of Informatics, Hungary), **Szilàgyi Z.** (University of Debrecen, Hungary), **Kölcsei Cs.** (University of Debrecen, Hungary)
Queueing systems assistance in action.

17.30-17.50
Sintsova Ksenia A. (HSE University / Department of Mathematics, Saint-Petersburg)
Mathematical model of discretionary access control policy.

17.50-18.20
Chuprunov Alexey N. (Chuvash State University, Cheboksary, Russia)
Poisson limit theorem for a number of given value trees in Galton-Watson forest with bounded number of vertexes

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Friday, 25 June, 2021

Morning session. Chair: Alexander Zeifman

11.00-11.30
Zeifman Alexander I. (Vologda State University), **Satin Yacov A.** (Vologda State University)
Sipin Alexander S. (Vologda State University)
On estimation of the rate of convergence for $M^X_t/M^X_t/1$ queueing models.

11.30-12.00
Gordienko Evgueni I. (Universidad Autonoma Metropolitana Iztapalapa Mathematics, Mexico City), **Ruiz de Chavez J.** (Universidad Autonoma Metropolitana Iztapalapa Mathematics, Mexico City)
Stability estimation of Markov control processes with unbounded rewards.

12.00-12.10
Break

Noon session. Chair: Victor Korolev

12.10-12.40

Kolnogorov Alexander V. (Yaroslav-the-Wise Novgorod State University, Velikiy Novgorod)
Poissonian two-armed bandit problem.

12.40-13.00
Savushkin Eugeny V. (Moscow State University / Faculty of CMC), **Zakharova Tatyana V.** (Moscow State University / Faculty of CMC)
Investigation of the existence of a solution for stochastic differential equations in the class L_p for $1<p<2$.

13.00-13.20
Dranitsyna Margarita A. (Moscow State University / Faculty of CMC), **Zakharova Tatyana V.** (Moscow State University / Faculty of CMC)
Some properties of the equivalence testing procedure for log-normal data.

13.20-13.35
Closing ceremony. Speakers: V. Korolev, V. Mazalov, E. Morozov