

Program of the 4th International Conference on Stochastic Methods

June 3rd

09:00-10:00	Breakfast
10:00-10:20	Opening of the conference. Introductory speech of the Chairman of the Organizing Committee Albert Shiryaev and Chairman of the Local Organizing Committee Igor Pavlov
10:20-11:00	Photographing in the park and by the sea

Plenary talks

Chairman: **Albert Shiryaev**

11:00-11:40	Vladimir Vatutin , E. Dyakonova «Evolution of a weakly subcritical branching process in random environment: population size at the initial stage»
11:40-12:20	Valeriy Afanasyev «Functional limit theorems for decomposable branching processes with two particle types»
12:20-12:40	Coffee break

Chairman: **Dmitry Rokhlin**

12:40-13:20	Lioudmila Vostrikova «On the Ruin Problem with Investment when the Risky Asset is a Semimartingale»
13:20-14:00	Ljudmila Bordag «Optimization problem for a portfolio with an illiquid asset in the case of an exponential utility function»
14:00-15:00	Dinner
15:00-16:00	Afternoon rest

Plenary talks

Chairman: **Ljudmila Bordag**

16:00-16:40	Dmitry Rokhlin «An analysis of some incentive mechanisms in multi-agent systems»
16:40-17:20	Mikhail Zhitlukhin «Asymptotically optimal strategies in linebreak a market model with competition»
17:20-17:40	Coffee break

Section talks

Chairman: **Vladimir Rykov**

17:40-18:00	Arsen Yakymiv «Moment asymptotics of a number of cycles in a random A-permutation»
18:00-18:20	Rostislav Razumchik «Stationary sojourn time distribution in the M/GI/2/∞ non-preemptive LIFO queue with resampling»
18:20-18:40	Alexey Kozhev «An information theory-based approach to feature selection»
18:40-19:00	Nikolai Slepov «Some upper bounds in limit theorems for random sums of random variables»
19:00-20:00	Supper

June 4th

09:00-10:00	Breakfast
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Plenary talks

Chairman: **Yana Belopolskaya**

10:00-10:40	Emmanuel Denis Lépinette «Conditional cores and conditional convex hulls of random sets»
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10:40-11:20	Alexander Gushchin «The joint law of the maximum and terminal value of a max-continuous local submartingale»
11:20-11:40	Coffee break

Chairman: **Mikhail Zhitlukhin**

11:40-12:20	Thorsten Schmidt «The valuation of insurance products linked to financial markets»
12:20-13:00	Manuel Leote Esquivel «On a stochastic model for a cooperative banking scheme for microcredit»
13:00-13:20	Coffee break

Chairman: **Vladimir Vatutin**

13:20-14:00	Elena Yarovaya «Large deviations and asymptotic behavior of stochastic evolutionary systems»
14:00-15:00	Dinner
15:00-16:00	Afternoon rest

Section talks

Chairman: **Doncho Donchev**

16:00-16:20	Stefan Tappe, B. Rajeev «Invariant manifolds in scalings of Hilbert spaces»
16:20-16:40	Mikhail Stepovich, E. Seregina, D. Turtin «On some aspects of correctness and stochastic features of mathematical models of diffusion and cathodoluminescence in semiconductors»
16:40-17:00	Vasily Rodochenko, O. Kudryavtsev «On non-parametric calibration scheme for CGMY model on cryptocurrency markets by means of a Gaussian process regression»
17:00-17:20	Konstantin Kuznetsov «Weighted average price management of manufacturer realization on commodity exchanges with predetermined volume of sales»
17:20-17:40	Coffee break

Chairman: **Valeriy Afanasyev**

17:40-18:00	Kirill Ryadovkin «On branching random walks on periodic lattices»
18:00-18:20	Margarita Melikian, A. Lykov, V. Malyshev «Stability problems for infinite linear chains»
18:20-18:40	Marina Ganzhur, D. Romanov, I. Borisenko, A Kobylyko «Simulation of systems using fuzzy dual Petri nets»
18:40-19:00	Anastasiia Rytova «Branching walk with an infinite number of initial particles and heavy tails»
19:00-20:00	Supper

June 5th

09:00-10:00	Breakfast
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Plenary talks

Chairman: **Nataliia Smorodina**

10:00-10:40	Yana Belopolskaya «A probabilistic interpretation of the MHD-Burgers system as a system of nonlinear forward Kolmogorov equations»
10:40-11:20	Yuri Gliklikh «Stochastic equations with current velocities and osmotic velocities (mean derivatives)»
11:20-11:40	Coffee break

Chairman: **Yuri Gliklikh**

11:40-12:20	Doncho Donchev «Asymptotic solutions to the inverse Shiryayev problem»
12:20-13:00	Nataliia Smorodina «A construction of reflecting Lévy processes»
13:00-13:20	Coffee break
13:20-13:50	Vladimir Ulyanov, G. Christoph, M. Monakhov «Asymptotic expansions for the distributions of statistics with random sample size»

14:00-15:00	Dinner
15:00-16:00	Afternoon rest

Section talks

Chairman: **Alexander Gushchin**

16:00-16:20	Farit Nasyrov «On strong solutions of stochastic differential equations»
16:20-16:40	Vladimir Zadorozhniy «About the expectation of solution a linear system of differential equations with three random coefficients»
16:40-17:00	Dmitriy Kuznetsov «Strong approximation of iterated Ito and Stratonovich stochastic integrals»
17:00-17:20	Mariia Platonova, S. Tsykin «On probabilistic approximations of the Cauchy problem solution for higher order Schrödinger»
17:20-17:40	Alla Makarova, V. Gorlov «Stochastic differential inclusions with forward mean derivatives with special right-hand sides»
17:40-18:00	Coffee break
Chairman: Mariia Platonova	
18:00-18:20	Evgeniy Kudryavtsev «Limit theorems for the flow control systems in a class of closed-loop algorithms»
18:20-18:40	Dilara Suchkova «Construction of the solution of a new version of the stochastic long-wave equation (BBM) with white noise dispersion»
18:40-19:00	Magomet Shumafov, V. Tlyachev «Stochastic stability of the second-order differential equations and systems»
19:00-20:00	Supper

June 6th

DAY OF REST. EXCURSIONS. BANKET.

June 7th

09:00-10:00	Breakfast
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Plenary talks (small hall)

Chairman: **Lioudmila Vostrikova**

10:00-10:40	Oleg Kudryavtsev «On approaches to pricing European and American lookback options»
10:40-11:20	Igor Rodionov «Parameter estimation of distribution tails»
11:20-11:40	Coffee break

Chairman: **Oleg Kudryavtsev**

11:40-12:20	Vladimir Rykov, D. Kozyrev «On sensitivity of stochastic models»
12:20-13:00	Andrei Zorine, M. Fedotkin «Stochastic models for adaptive control processes for conflicting flows of nonhomogeneous customers»
13:00-13:20	Coffee break

Section talks

Chairman: **Farit Nasyrov**

13:20-13:40	Ernst Presman, Sh. Formanov «On one modification of the conditions of Lindeberg and Rotar»
13:40-14:00	Maria Kocheganova «Limit theorems for a multidimensional Markov chain as a model of a queueing system controlled with a threshold-priority algorithm with prolongations»
14:00-15:00	Dinner

15:00-16:00	Afternoon rest
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Section talks

Chairman: **Gennady Martynov**

16:00-16:20	Mikhail Tikhov, V. Grishin «A simple bias reduction method in nonparametric distribution function estimation»
16:20-16:40	Victor Kocheganov «Tandem of queueing systems with cyclic service with prolongations analysis»
16:40-17:00	Eduard Sopin, K. Ageev, K. Samouylov «Effective algorithms for stationary characteristics evaluation of queueing systems with limited resources»
17:00-17:20	Ludmila Shiryaeva «On rotated versions of the three-parameter Grubbs copula»
17:20-17:40	Denis Dimitrov «Statistical estimation of the Kullback-Leibler divergence»
17:40-18:00	Coffee break
Chairman: Mikhail Tikhov	
18:00-18:20	Gennady Martynov «New Cramer-von Mises multivariate uniformity test for large dimensions»
18:20-18:40	Lana Melkumova «Simplified PCC and conditional quantile reproducibility»
18:40-19:00	Sergey Leshchenko «Generalized optimization problems for testing two composite hypotheses»
19:00-20:00	Supper

June 8th

Section talks

Chairman: **Elena Chub**

10:00-10:20	Alexander Chistyakov, S. Protsenko «The investigation of turbulent exchange by methods of stochastic analysis»
10:20-10:40	Alla Nikitina, A. Filina, T. Lyashchenko, L. Kravchenko «Mathematical modeling of microbiological destruction of oil pollution in coastal system based on the stochastic approach»
10:40-11:00	Valentina Sidoryakina, A. Sukhinov, S. Protsenko «Numerical investigation of stochastic model of suspension transport in coastal systems»
11:00-11:20	Ljudmila Kravchenko, V. Chernovolov, A. Nikitina, V. Litvinov «Probabilistic modeling of sprinkling processes»
11:20-11:40	Yulia Belova, A. Nikitina, A. Filina «The statistical processing of field data for studying nutrient pollution of a shallow water by river flows when modeling its ecological state»
11:40-12:00	Coffee break

Chairman: **Lana Melkumova**

12:00-12:20	Andrey Perevaryukha «Population model of pest with stochastic transition to the outbreak phase»
12:20-12:40	Elena Chub, V. Pogorelov «On some solution of the problem of optimal control of nonlinear stochastic systems based on the use of information criteria»
12:40-13:00	Elena Karachanskaya «Construction of a continuum of automorphic functions in n-dimensional ($n \geq 2$) space»
13:00-13:20	Sergey Shorokhov «On some properties of CEV stochastic model and its applications»
13:20-13:40	Alexandr Rakitko «Limit theorems in multifactorial dimensionality reduction»
14:00-15:00	Dinner
15:00-16:00	Afternoon rest

Section talks

Chairman: **Alla Makarova**

16:00-16:20	Elena Alymova, O. Kudryavtsev «Neural networks usage of financial time series prediction»
16:20-16:40	Angelika Danekyants, N. Neumerzhitskaia «On rational and irrational interpolating martingale measures»
16:40-17:00	Inna Tsvetkova, I. Pavlov «Interpolating deflators and interpolating martingale measures»
17:00-17:20	Sergey Uglich, I. Pavlov, T. Volosatova «Minimax Problem in a Task with Priorities»
17:20-17:40	Nadezhda Krasii, I. Pavlov «Generalization of the model with priorities»
17:40-18:00	Natalia Saifutdinova, D. Butko, S. Saifutdinova «Algorithm for calculating the reliability of the water supply network, taking into account equipment wear »
18:50-?	Supper. Closing of the conference