

Faculty of Computational
Mathematics and Cyber-
netics of the Lomonosov
Moscow State University

Faculty of Mechanics and
Mathematics of Perm
State University (PSU)

Institute of Informatics
Problems of the Federal
Research Scientific Cen-
ter "Computer Science and
Control" of RAS

XXXV International Seminar on Stability Problems for Stochastic Models

24 – 28 September 2018
Perm, Russia

Program of the Seminar

Edited by

Prof. Victor Yu. Korolev and Assoc. Prof. Vladimir V. Chichagov



Perm 2018

**The Organizing Committee of
the XXXV International Seminar on Stability Problems for
Stochastic Models**

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XXXV International Seminar on Stability Problems for Stochastic Models (ISSPSM 2018): Program of seminar. – Perm: Perm State University, 2018. – 12 p.

Program was formed on base of abstracts that have been accepted by the International Program and Organizing Committees of the XXXV International Seminar on Stability Problems for Stochastic Models (ISSPSM 2018).

XXXV Международный семинар по проблемам устойчивости стохастических моделей (ISSPSM 2018): программа семинара / В.Ю. Королев, В.В. Чичагов; Перм. гос. нац. исслед. ун-т. – Пермь, 2018. – 12 с.

Программа была сформирована на основе тезисов докладов, которые были приняты Международным программным и организационными комитетами XXXV Международного семинара по проблемам устойчивости стохастических моделей (ISSPSM 2018).

*Issued by decision
of International Program and Organizing Committees*

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were partially supported by Russian Foundation for Basic Research
(project № 18-01-20071).*

XXXV International Seminar on Stability Problems for Stochastic Models will be held in Perm, Russia from 24 to 28 of September 2018 under the auspices of Perm State University (PSU), Faculty of Computational Mathematics and Cybernetics of the Lomonosov Moscow State University and Institute of Informatics Problems of the Federal Research Scientific Center "Computer Science and Control" of the Russian Academy of Sciences.

HISTORY OF THE SEMINAR

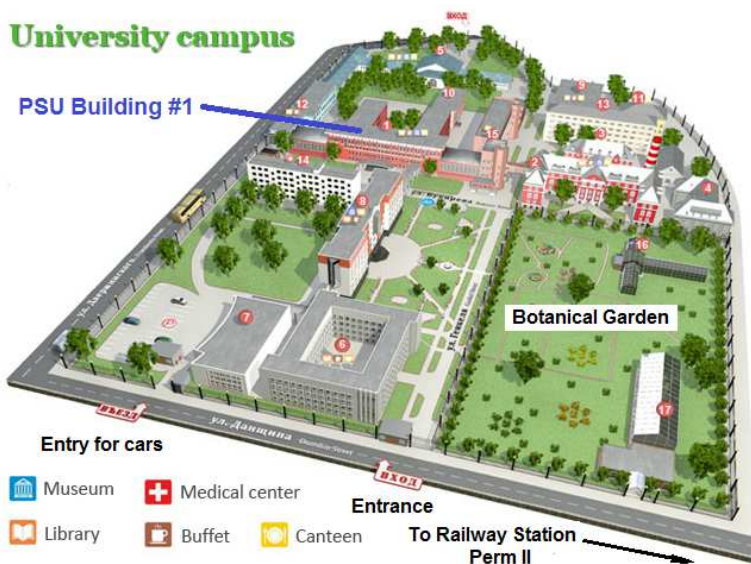
Seminars on Stability Problems for Stochastic Models have a long tradition. They were founded by Vladimir Zolotarev in the 1970's. The seminars were attended by leading specialists in probability theory and mathematical statistics from all over the world and traditionally aim at bringing together people from Eastern and Western Europe to share their expertise, new results, exchange the ideas and discuss open problems. A number of previous seminars took place in Pamplona, Navarra, Spain (2003), Riga, Latvia (2004), Karmiel, Israel (2007), Zielona Góra, Poland (2009), Svetlogorsk, Russia (2011, 2012), Moscow, Russia (2013), Trondheim, Norway (2014), Svetlogorsk, Russia (2016), and Debrecen, Hungary (2017).

THE MAIN TOPICS OF SEMINAR

1. Limit Theorems and Stability Problems
2. Stochastic Processes
3. Statistics of Time Series and Stochastic Processes
4. Finance, Insurance, Risk
5. Spatial Statistics
6. Applied Statistics and Data Analysis
7. Stochastic Dynamics
8. Random Graphs
9. Queuing Theory and Modelling
10. Information Systems
11. Probability Distributions
12. Discrete probability Models
13. Nonparametric Statistics
14. Statistical Learning

TECHNICAL QUESTIONS

Sessions. All Seminar sessions will be held in the Conference Hall (CH in Seminar Schedule) on the second floor of PSU Building 1 (see view of the PSU Campus below and the interactive form of the Campus map at <http://en.psu.ru/campus-life/campus-map>).



Meals. Lunches and the Seminar dinner will be held in the Professorial Hall (PH in Seminar Schedule) in the University Cafeteria on the first floor of PSU Building 1.

Tasting of dishes of Perm cuisine will be held in Restaurant "Stroganovsky" (Hotel "Ural", HU in Seminar Schedule) on September 27, 2018.

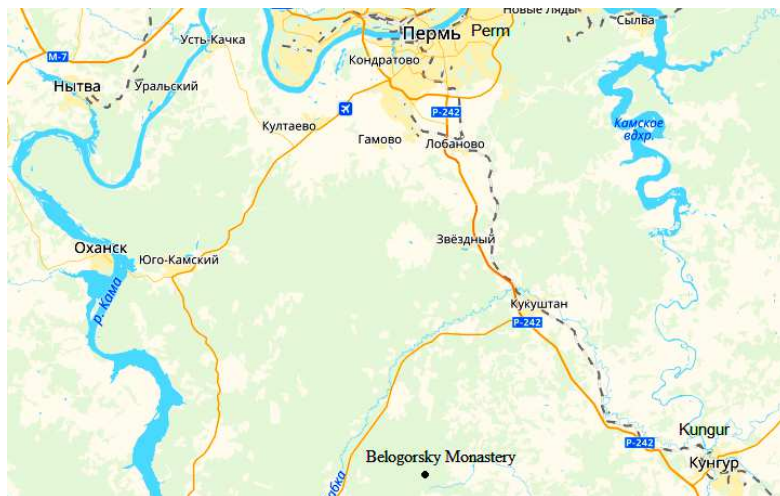
Local Transportation. Perm's public network includes tram, bus, trolleybus (the cost of one travel is equal to 20 RUB), city-railway routes, taxi and minibus services. From 7-00 to 23-00 buses route 42 run from the airport to the main bus station in the center of Perm and return. In the daytime, a number of minibus services runs along this route. Taxis of Uber, Yandex and various local firms operate around the clock. Parking places are near the airport building too.

Participants of the seminar will be transported by bus from the hotels AMAKS and Ural to the PSU Campus and back.

Time. The Perm time is equal to the Moscow time plus two hours.

EXCURSIONS

1. Excursion *the Botanical Garden* will be held on the PSU Campus (UC in Seminar Schedule) on September 24, 2018 (see the Campus map).



2. Excursion the Kungur Ice Cave, Belogorsky Monastery (about 90 km from Perm) will be held on September 26, 2018.

★ Please note that the air temperature in the center of the cave is from -2°C to $+5^{\circ}\text{C}$.

Seminar Schedule

Monday, September 24, 2018

08:30–09:00	Registration	CH
09:00–09:30	Opening of the seminar	CH
	V.Yu. Korolev (<i>Russia</i>) – Chairman of ISSPSM 2018	
	V.V. Malanin (<i>Russia</i>) – President of PSU, Chairman of ISSPSM 2018 Local Organizing Committee	
	A.L. Vetrov (<i>Russia</i>) – PSU Vice-Rector for Research and Innovations, Member of ISSPSM 2018 Local Organizing Committee	
	Ya. Lumelskii (<i>Russia, Israel</i>) – Member of ISSPSM 2018 International Organizing Committee	
	Session 1. Chairman: G.L. Shevlyakov	
09:30–10:15	PLENARY LECTURE: V.Yu. Korolev, A.K. Gorshenin (<i>Russia, People's Republic of China</i>)	CH
	Probability models of statistical regularities in rainfall data	
10:15–11:00	PLENARY LECTURE: V.N. Kolokoltsov (<i>Great Britain, Russia</i>)	CH
	Probabilistic methods for the analysis of fractional and generalized fractional partial differential equations	
11:00–11:30	Coffee break	CH
	Session 2. Chairman: A.A. Kudryavtsev	
11:30–12:00	L.G. Afanaseva (<i>Russia</i>)	CH
	Stability analysis of retrial queueing systems based on the synchronization method	
12:00–12:30	E.E. Bashtova, A.B. Popov (<i>Russia</i>)	CH
	Infinity-channel queueing system with time-dependent intensity of input. Fast and slow growth of the intensity	
12:30–13:00	I.E. Poloskov (<i>Russia</i>)	CH
	New scheme for calculation of senior moment functions for the state vector of linear stochastic delay differential system excited by additive and multiplicative white noises	
13:00–14:30	Lunch	PH
	Session 3. Chairman: A.L. Yakymiv	
14:30–15:00	M. Alhuzani, A. Chuprunov (<i>Russia</i>)	CH
	Limit theorems connected with cells from a pointed set	
15:00–15:30	I.V. Zolotukhin (<i>Russia</i>)	CH
	On multivariate models based on scale mixtures	
15:30–16:00	Coffee break	CH
16:00–17:00	Excursion the Botanical Garden	UC

Tuesday, September 25, 2018

Session 4. Chairman: V.N. Kolokoltsov

- 09:30–10:15** PLENARY LECTURE: **E. Orsingher** (*Italy*) CH
Some probabilistic features of the iterated Brownian motion
- 10:15–11:00** PLENARY LECTURE: **I.A. Cheplyukova, Yu.L. Pavlov** (*Russia*) CH
Complex network models and generalized allocation scheme

11:00–11:30 **Coffee break** CH

Session 5. Chairman: Yu.L. Pavlov

- 11:30–12:00** **M.M. Leri** (*Russia*) CH
Clustering and assortativity in configuration graphs
- 12:00–12:30** **N.N. Skvortsova, S.A. Maiorov, D.V. Malakhov, V.D. Stepakhin, E.A. Obraztsova, O.N. Shishilov** (*Russia*) CH
Size distributions of regolith granules at meteorite impact on the Moon and in laboratory experiments with microwave discharge
- 12:30–13:00** **E.V. Voronova, N.N. Skvortsova, Yu.V. Kholnov, D.V. Malakhov** (*Russia*) CH
Development of a semiautomatic system for processing the magnetic probe diagnostic data on L-2M stellarator

13:00–14:15 **Lunch** PH

Session 6. Chairman: P.A. Koldanov

- 14:15–14:45** **E.V. Karachanskaya** (*Russia*) CH
Programmed control with probability 1 for stochastic dynamical systems
- 14:45–15:15** **T.V. Zakharova, A.V. Slivkina, M. Dranitsyna** (*Russia*) CH
The application of the ICA method and window dispersion in the study of bioequivalence of drugs
- 15:15–15:45** **Yu.S. Khokhlov** (*Russia*) CH
Quality of service estimation in telecommunication system with nonhomogeneous input flow

15:45–16:15 **Coffee break** CH

Session 7. Chairman: I.G. Shevtsova

- 16:15–16:45** **R.A. Gabdullin, V.A. Makarenko, I.G. Shevtsova** (*Russia*) CH
Structural improvement of Esseen's and Rozovskii's inequalities
- 16:45–17:15** **V.A. Makarenko, R.A. Gabdullin, I.G. Shevtsova** (*Russia*) CH
On generalization of the Ahmad–Wang inequality

17:15–17:45	Á. Tóth, T. Bérczes, A. Kuki, J. Sztrik (<i>Hungary</i>)	CH
	Simulation of finite-source retrial queueing systems with collisions and blocking	
18:00–21:00	Seminar dinner	PH

Wednesday, September 26, 2018

08:30–18:00	Excursion the Kungur Ice Cave, Belogorsky Monastery
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Thursday, September 27, 2018

Session 8. Chairman: E. Orsingher

09:30–10:15	PLENARY LECTURE: G.L. Shevlyakov (<i>Russia</i>)	CH
	Robust minimax estimation of location and least favorable distributions under asymmetry	
10:15–11:00	PLENARY LECTURE: O.V. Shestakov (<i>Russia</i>)	CH
	Thresholding rules in the models with non-Gaussian noise	
11:00–11:30	Coffee break	CH

Session 9. Chairman: O.V. Shestakov

11:30–12:00	A.A. Kudryavtsev, S.I. Palionnaya, A.I. Titova (<i>Russia</i>)	CH
	Bayesian method of modeling the balance and advantage processes	
12:00–12:30	A.V. Shklyayev (<i>Russia</i>)	CH
	Non-arcsine law for random walk conditioned to reach a high level	
12:30–13:00	V.V. Saenko (<i>Russia</i>)	CH
	Integral representation of the density of the fractional-stable law	
13:00–14:15	Lunch	PH

Session 10. Chairman: A.V. Shklyayev

14:15–14:45	M.S. Al-Nator, S.V. Al-Nator (<i>Russia, Jordan</i>)	CH
	Optimal portfolio construction with two-sided weight constraints and commission	
14:45–15:15	M.S. Al-Nator, S.V. Al-Nator, Yu.F. Kasimov (<i>Russia, Jordan</i>)	CH
	Multi-period Markowitz model and optimal self-financing strategy with commission	
15:15–15:45	Coffee break	CH

Session 11. Chairman: M.S. Al-Nator

15:45–16:15	A.A. Abdushukurov (<i>Uzbekistan</i>)	CH
	Estimation of conditional distribution function under dependent random censored data	
16:15–16:45	T. Bérczes, A. Kuki, Á. Tóth, J. Sztrik (<i>Hungary</i>)	CH
	Performance modeling of finite-source retrieval queueing systems with collisions and blocking	
16:45–17:15	E. Orsingher (<i>Italy</i>)	CH
	Generalized space-time fractional equation and the related stochastic processes	
18:00–19:30	Perm cuisine	HU

Friday, September 28, 2018

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Session 12. Chairman: V.Yu. Korolev

09:30–10:15	PLENARY LECTURE: I.G. Shevtsova (<i>Russia</i>)	CH
	Integral transforms of characteristic functions and their properties	
10:15–11:00	PLENARY LECTURE: A.L. Yakymiv (<i>Russia</i>)	CH
	Multivariate regular variation in probability theory	
11:00–11:30	Coffee break	CH

Session 13. Chairman: Yu.S. Khokhlov

11:30–12:00	V.V. Chichagov (<i>Russia</i>)	CH
	Generalization of the Rao–Robson–Nikulin test	
12:00–12:30	P.A. Koldanov (<i>Russia</i>)	CH
	Statistical procedures for network structures identification with invariant risk function	
12:30–13:00	A. Kuki, T. Bérczes, Á. Tóth, J. Sztrik (<i>Hungary</i>)	CH
	Numerical results on finite source Markov retrieval system with collision	
13:00–13:20	Closing of the seminar	CH
	V.Yu. Korolev (<i>Russia</i>) – Chairman of ISSPSM 2018	
13:20–14:30	Lunch	PH

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XXXV International Seminar on Stability Problems for Stochastic Models

Program of the Seminar

XXXV Международный семинар по проблемам устойчивости стохастических моделей

Программа семинара

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