

# Asymptotic Statistics of Stochastic Processes and Applications

17 – 21 July 2017, Peterhof, Russia

## Monday, 17 July

- 10:00 – 10:10 **Opening (Yu. Kabanov & Yu. Kutoyants)**
- 10:10 – 10:50 *Yury Kutoyants*: The asymptotics of misspecified MLEs for some stochastic processes: a survey
- 10:50 – 11:10 **Coffee break**
- 11:10 – 11:50 *Pierre Bertrand*: Overfitting of Hurst estimators for multifractional Brownian motion. A fitting test advocating simple models
- 11:50 – 12:30 *Oleg Loukianov*: Statistical inference for random walk in a random environment
- 12:30 – 13:10 *Iliia Negri*: Z-process method for change point problems with applications to discretely observed diffusion processes
- 13:10 – 15:00 **Lunch**
- 15:00 – 15:40 *Claude Depollier*: System identification: response of dynamical systems in time frequency space
- 15:40 – 16:20 *Oleg Chernoyarov*: Application of the local Markov approximation method for the statistical analysis of quasi-deterministic and random signals with unknown discontinuous parameters
- 16:20 – 16:40 **Coffee break**
- 16:40 – 17:20 *Alexandra Salnikova*: Probability characteristics of the absolute maximum of the Gaussian random processes
- 17:20 – 18:00 *Ali Dabye*: Method of moments estimators and multi-step MLE for Poisson processes
- 18:00 – 20:00 **Dinner**

## Tuesday, 18 July

- 9:30 – 10:10 *Ildar Ibragimov*: Estimation of functions depending on an infinite dimensional parameter observed in Gaussian white noise
- 10:10 – 10:50 *Catherine Laredo*: Estimation for stochastic differential equations with mixed effects from discrete observations
- 10:50 – 11:10 **Coffee break**
- 11:10 – 11:50 *Alexander Gushchin*: On the Chacon–Walsh construction in the Skorokhod Embedding Problem
- 11:50 – 12:30 *Dasha Loukianova*: Jump filtering and efficient drift estimation for Levy driven SDE
- 12:30 – 13:10 *Oleg Rusakov*: Tightness of a family of double stochastic pseudo-Poissonian processes and applications to a real world data
- 13:10 – 15:00 **Lunch**
- 15:00 – 15:40 *Chao Zhou*: Bank monitoring incentives under moral hazard and adverse selection
- 15:40 – 16:20 *Marvin Mueller*: Tractable SPDE models for order books
- 16:20 – 16:40 **Coffee break**
- 16:40 – 17:20 *Ekaterina Palamarchuk*: On upper functions of solutions to linear SDE's with non-exponentially stable state matrix
- 17:20 – 18:00 *Mikhail Zhitlukhin*: On exact solutions of some changepoint detection problems
- 18:00 – 20:00 **Dinner**

## Wednesday, 19 July

- 9:30 – 10:10 *Hiroki Masuda*: Local limit theorem in non-Gaussian quasi-likelihood inference
- 10:10 – 10:50 *Martin Larsson*: Affine Volterra processes and their characteristic functions
- 10:50 – 11:10 **Coffee break**
- 11:10 – 11:50 *Irene Votsi*: Risk indicators and convergence rates for semi-Markov models
- 11:50 – 12:30 *Gennady Martynov*: A new approach to the testing the distribution uniformity on the multivariate cube with large dimension
- 12:30 – 14:00 **Lunch**
- 14:00 – 18:30 **Excursion**
- 19:00 – 20:30 **Dinner**

## Thursday, 20 July

- 9:30 – 10:10 *Yuri Kabanov*: On the ruin problem with investments
- 10:10 – 10:50 *Sergey Pergamenshchikov*: Robust adaptive efficient estimation for a semi-Markov continuous time regression from discrete data
- 10:50 – 11:10 **Coffee break**
- 11:10 – 11:50 *Johannes Ruf*: Volatility and arbitrage
- 11:50 – 12:30 *Xiang Yu*: Optimal consumption under non-addictive habit formation in incomplete markets
- 12:30 – 13:10 *Elena Boguslavskaya*: On solving optimal stopping problems for strong Markov processes
- 13:10 – 15:00 **Lunch**
- 15:00 – 15:40 *Mikhail Ermakov*: On asymptotically minimax nonparametric estimation and detection of signal in Gaussian white noise
- 15:40 – 16:20 *Yuta Koike*: On the asymptotic structure of Brownian motions with a small lead-lag effect
- 16:20 – 16:40 **Coffee break**
- 16:40 – 17:20 *Alexey Muravlev*: TBA
- 17:20 – 18:00 *Dmitriy Lisovskiy*: A Bayesian problem of testing two simple hypotheses for a Brownian bridge
- 18:00 – 20:00 **Dinner**

## Friday, 21 July

- 9:30 – 10:10 *Masayuki Uchida*: Hybrid estimators with initial Bayes estimators for small diffusion processes based on reduced data
- 10:10 – 10:50 *Valentin Solev*: Hunt-Mackenhaupt-Wheeden condition and estimating of pseudo-periodic function
- 10:50 – 11:10 **Coffee break**
- 11:10 – 11:50 *Serguei Dachian*: On parameter estimation and hypothesis testing for Poisson processes in case of a change-point with variable jump size
- 12:30 – 14:00 **Lunch**
- 18:00 – 20:00 **Dinner**