

Stochastics, Statistics, Financial Mathematics

October 13–15, 2014, Steklov Mathematical Institute, Moscow

Conference Program

Monday, 13 October

- 9:30 – 10:00 **Opening (Valeriy Kozlov, Yuri Kabanov)**
- 10:00 – 10:40 *Jean Jacod*: Limit theorems for stochastic processes: some advances during the past ten years
- 10:45 – 11:25 *Yuri Kabanov*: Absolute continuity of measures, the Girsanov theorem, and Hellinger processes
- 11:30 – 11:45 **Coffee break**
- 11:45 – 12:25 *Martin Schweizer*: A new approach for stochastic Fubini theorems
- 12:30 – 13:10 *Alexander Zvonkin*: Gaussian measures on the space of matrices and map enumeration
- 13:15 – 14:30 **Lunch**
- 14:30 – 15:10 *Vladimir Spokoiny*: From lambda-convergence to Fisher and Wilks expansions
- 15:15 – 15:55 *Alexander Bulinski*: Generalizations of the multifactor dimensionality reduction method
- 16:00 – 16:40 *Jordan Stoyanov*: Transformations of random variables and processes and their moment determinacy
- 16:45 – 17:00 **Coffee break**
- 17:00 – 17:40 *Anna Obizhaeva*: Market microstructure invariance
- 17:45 – 18:25 *Pavel Katyshev*: Transmission of information over channels with feedback and filtration theory

Tuesday, 14 October

- 10:00 – 10:40 *Hans-Juergen Engelbert*: Stochastic differential equations for sticky reflecting Brownian motion
- 10:45 – 11:25 *Hans Föllmer*: Another look at Itô's formula
- 11:30 – 11:45 **Coffee break**
- 11:45 – 12:25 *Marek Musiela*: TBA
- 12:30 – 13:10 *Goran Peskir*: Optimal mean-variance portfolio selection
- 13:15 – 14:30 **Lunch**
- 14:30 – 15:10 *Alexander Novikov*: First passage time problems: martingale approach revised
- 15:15 – 15:55 *Mikhail Urusov*: A generalized Donsker's theorem and approximating SDEs with irregular coefficients
- 16:00 – 16:40 *Alexander Gushchin*: On the inequalities connecting Hellinger processes and some statistical distances
- 16:45 – 17:00 **Coffee break**
- 17:00 – 17:30 *Igor Pavlov*: Interpolation properties of martingale measures and Haar interpolations of (B, S) -markets
- 17:35 – 18:05 *Vadim Malyshev*: Stochastics in non-equilibrium statistical physics and econophysics
- 18:10 – 18:40 *Alexey Muravlev*: Sequential testing problem of two hypotheses for a fractional Brownian motion

Wednesday, 15 October

- 10:00 – 10:40 *Alexander Holevo*: The classical capacities of quantum communication channels
- 10:45 – 11:25 *Leonid Galtchouk*: On asymptotic normality of sequential LS-estimates for unstable autoregressive processes AR(p)
- 11:30 – 11:45 **Coffee break**
- 11:45 – 12:25 *Raphael Douady*: On “downfalls” in a standard Brownian motion
- 12:30 – 13:10 *Michael Grabchak*: TBA
- 13:15 – 14:30 **Lunch**
- 14:30 – 15:10 *Lioudmila Vostrikova*: How to price and hedge change-point models?
- 15:15 – 15:45 *Elena Boguslavskaya*: On solving optimal stopping problems for Levy processes via A-transform
- 15:50 – 16:20 *Mikhail Zhitlukhin*: Optimal stopping problems with unbounded payoffs
- 16:20 – 16:30 **Closing (Albert Shiryaev)**
- 16:30 – 19:30 **Dinner**