

# Russian-Japan Symposium

on

## STOCHASTIC ANALYSIS OF THE ADVANCED STATISTICAL MODELS

Joint RFBR-JSPS Russian-Japan Project

“Complex Stochastic Models: Asymptotics and Applications”

Co-leaders: A.Shiryayev and H.Wakaki

### Tuesday, September 15

9:30	Morning coffee
9:50 – 10:00	OPENING
10:00 – 10:40	H.WAKAKI. An asymptotic expansion of the local power of a general test for testing a general covariance structure (joint work with A. Shimizu)
10:50 – 11:10	YU.V. PROKHOROV. On convergence to uniform law
11:10 – 11:30	Coffee
11:30 – 12:10	T.SUGIYAMA. Distributions and test of each characteristic root in principal component analysis
12:20 – 12:40	A.ALIEV. Arbitrage strategies in mean-reverting diffusion models
12:50 – 13:10	E.MIYAZAKI. Approximate distribution of the smallest latent root in Wishart matrix
13:30 – 14:30	Lunch
14:30 – 14:50	A.GUSHCHIN. Utility maximization in some markets admitting arbitrage
15:00 – 15:20	K.OKUSA and T.KAMAKURA. A statistical method to extract information from the scalechanging object
15:20 – 15:40	Coffee
15:40 – 16:00	E.BURNAEV. On a nonlinear minimax quickest detection problem for the Brownian motion
16:10 – 16:30	G.PERELMAN. Ito’s formula for functions with jump along the curve

### Wednesday, September 16

9:30	Morning coffee
10:00 – 10:40	A.SHIRYAEV. Concept of RANDOMNESS: evolution of notions
10:50 – 11:10	K.IWATA. On a semigroup of optimal stopping times
11:10 – 11:30	Coffee

11:30 – 12:10	T.KAMAKURA. Methods of testing for normality of observations
12:20 – 12:40	V.ULYANOV. Asymptotic properties of almost quadratic forms
12:50 – 13:30	K.NAGAI. Asymptotics of sequential tests for some markov chains via convergence to diffusion
13:30 – 14:30	Lunch
14:30 – 14:50	I.SHEVTSOVA. On asymptotically exact constants in CLT
15:00 – 15:20	A.MURAVLEV. On stopping times connected with drawdowns and rallies of a Brownian motion with drift
15:20 – 15:40	Coffee
15:40 – 16:00	A.KAMENOV. Asymptotical behavior of Russian option on a finite time horizon
16:10 – 16:30	A.SHAPOSHNIKOV. On Skorokhod's differentiability of measures

### Thursday, September 17

9:30	Morning coffee
10:00 – 10:40	T.YANAGAWA. Statistical challenges on chaotic time series with dynamic noise
10:50 – 11:10	E.YAROVAYA. Criteria of exponential growth of the numbers of particles in branching random walks
11:10 – 11:30	Coffee
11:30 – 12:10	T.FUJITA. TBA
12:20 – 12:40	M.ZHITLUKHIN. Maximal inequality for skew Brownian motion
12:50 – 13:30	K.NISHIDE. On the environmental Kuznets curve: a real options approach (joint work with M.Kijima and A.Ohyama)
13:30 – 14:30	Lunch
14:30 – 14:50	A.ABAKIROVA. Analogues of the Poincaré-Chernoff inequality and the logarithmic Sobolev inequality
15:00 – 15:20	Y.LYULKO. Stochastic representations of max-type functionals from random walk
15:20 – 15:40	Coffee
15:40 – 16:00	S.SHAPOSHNIKOV. Estimates of transition densities
16:10 – 16:30	V.BOGACHEV. On polynomials in Gaussian random variables
16:30	CLOSING

Time of the Symposium: September 15 – 17, 2009

Location of the Symposium: Gubkina street 8, Steklov Mathematical Institute, 9 floor

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