

Conference and summer-school «Structural Inference in High-dimensional Models 2»

The conference will be held at the HSE University from August, 26 to August, 30, 2019.

Venue: HSE Management Training Center (Kochubey Mansion), 4 Radischeva Str., Pushkin, St. Petersburg, RUSSIA, 196602.

Mini-courses: Stephane Mallat, Mikhail Lifshitz, Olga Klopp, Christophe Andrieu
Sessions: Topics in MCMC (chair: Eric Moulines), Statistical Session (chair: Anatoli Juditsky), High-dimensional probability (chair: Alexey Naumov), Statistical Optimal Transport (chair: Vladimir Spokoiny).

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August 26

Time	Speaker	Title
08:00-9:15		Breakfast
09:15-09:30		Welcome
09:30-11:00	Stephan Mallat	Course: Mathematics of Deep Convolutional Neural Networks 1
11:00-11:30		Coffee break
11:30-13:00	Mikhail Lifshitz	Course: How Complex is a Random Picture 1
13:00-14:40		Lunch
14:40-15:20	Arnak Dalalyan	On sampling from a log-concave density using kinetic Langevin diffusions
15:20-16:00	Said Salem	Riemannian barycentres of Gibbs distributions: new results on concentration and convexity
16:00-16:30		Afternoon Tea
16:30-17:10	Lukasz Szpruch	Mean-Field Langevin Dynamics and Energy Landscape of Neural Networks
17:10-17:50	Denis Belomestny	Variance-reduced Q-learning via martingale representations
18:00-19:30		Poster Session
19:30-		Dinner

August 26 Poster talks

Speaker	Title
Nikita Puchkin	Structure-adaptive manifold estimation
Sergey Samsonov	Variance reduction for dependent sequences via empirical variance minimization
Leonid Iosipoi	MCMC for distributions with known characteristic function
Franz Besold	Manifold clustering with adaptive weights
Maxim Kaledin	Approximate dynamic programming for American options
Darina Dvinskikh	Decentralized and Parallelized Primal and Dual Accelerated Methods
Arshak Minasyan	Assessing excess risk in robust estimation of Gaussian mean with parameter contamination
Maxim Kaledin	A piecewise deterministic Markov process via (r, θ) - swaps in hyperspherical coordinates

August 27

Time	Speaker	Title
08:00-9:30	Breakfast	
09:30-11:00	Mikhail Lifshits	Course: How Complex is a Random Picture 2
11:00-11:30	Coffee break	
11:30-13:00	Stephan Mallat	Course: Mathematics of Deep Convolutional Neural Networks 2
13:00-14:40	Lunch	
14:40-15:20	Ildar Ibragimov	On the estimation of intensity density functions of Poisson processes
15:20-16:00	Alexander Tsybakov	Estimation of functionals in sparse vector model
16:00-16:30	Afternoon Tea	
16:30-17:10	Axel Munk	Empirical Optimal Transport: Inference, Algorithms, Applications
17:10-17:50	Anatoli Juditsky	On Polyhedral Estimation of Signals via Indirect Observations
17:50-18:30	Jing Bin Yi	Recommender system incorporating social network information
19:30-	Dinner	

August 28

Time	Speaker	Title
08:00-9:30	Breakfast	
09:30-10:10	Friedrich Götze	Concentration of Measure and Entropic Convergence
10:10-10:50	Nikita Zhivotovskiy	Noise sensitivity of the top eigenvector of random matrices
10:50-11:20	Coffee break	
11:20-12:00	Alexander Kolesnikov	Convexity and transportation: inequalities, barycenters, analysis on Wiener space
12:00-12:40	Dmitry Zaporozhets	Generalized Busemann inequality
12:40-13:00	Alexey Naumov	Concentration inequalities for functionals of Markov chains
13:00-14:40	Lunch and free time	

August 29

Time	Speaker	Title
08:00-9:30	Breakfast	
09:30-11:00	Olga Klopp	Course: Matrix Completion: old and new 1
11:00-11:30	Coffee break	
11:30-13:00	Christophe Andrieu	Course: Nonreversible Markov chain and process Monte Carlo methods 1
13:00-14:40	Lunch	
14:40-15:20	Marco Cuturi	Differentiable Ranks using Optimal Transport: The Sinkhorn CDF and Quantile Operator
15:20-16:00	Alexander Gasnikov	Acceleration of Sinkhorn algorithm for optimal transportation problem and Iterative Bregman Projection algorithm for Wasserstein barycenter problem
16:00-16:40	Alexey Kroshnin	Shape-based domain adaptation via optimal transportation
16:40-17:10	Afternoon Tea	
17:10-17:50	Alexandra Suvorikova	On some geometrical intuition on multiplier bootstrap in Bures-Wasserstein space
17:50-18:30	Eugene Stepanov	A tour of location problems: from optimal to random
20:00-	Conference dinner (started in the foyer at 19:30)	

August 30

Time	Speaker	Title
08:00-9:30		Breakfast
09:30-11:00	Christophe Andrieu	Course: Nonreversible Markov chain and process Monte Carlo methods 2
11:00-11:30		Coffee break
11:30-13:00	Olga Klopp	Course: Matrix Completion: old and new 2
		The End
13:10-		Lunch and Discussion