Dmitrii M. Ostrovskii   June 16, 2023

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OTHER LINKS:	Scholar ● GitHub ● YouTube

RESEARCH INTERESTS

- ***Optimization theory:***

    nonconvex minimax problems; acceleration under non-Euclidean geometries.

- ***Learning theory:***

    fast rates in statistical and online learning; applications of self-concordance.

- ***Mathematical statistics:***

    high-dimensional, robust, and adaptive estimation and hypotheses testing.

- ***Information theory:***

    information-theoretic techniques in optimization, statistics, combinatorics.

- ***Signal processing:***

    sparse recovery; super-resolution; estimation with shift-invariant structure.

CURRENT POSITION

Assistant Professor (tenure-track)   since 08/2023
Georgia Tech – School of Mathematics & H. Milton Stewart School of ISyE (jointly)

PREVIOUS POSITIONS

Assistant Professor   08/2021–05/2023
USC – Department of Mathematics (promoter: Stanislav Minsker)

Postdoctoral Scholar   08/2019–08/2021
USC – Viterbi School of Engineering (host: Meisam Razaviyayn)

ERCIM Alain Bensoussan Postdoctoral Fellow   02/2018–06/2019
INRIA Research Center in Paris – SIERRA Project-Team (host: Francis Bach)

DEGREES

PhD – Université Grenoble Alpes   10/2014–01/2018
Thesis: *Adaptive Signal Recovery by Convex Optimization*
Advisors: Anatoli Juditsky, Zaid Harchaoui (University of Washington)

MSc – Moscow Institute of Physics and Technology   09/2012–08/2014
Thesis: *Concentration Inequalities for the Exponential Weighting Method*
Advisor: Yuri Golubev (Université Aix-Marseille, IITP RAS)

BSc – Moscow Institute of Physics and Technology   09/2008–08/2012
Thesis: *Analytical Study of NHDP Link Management Protocol*
Advisors: Andrey Lyakhov & Evgeny Khorov (IITP RAS)

Preprints and Working Papers	**Efficient and Near-Optimal Online Portfolio Selection** R. Jézéquel, D. Ostrovskii, P. Gaillard. `arXiv:2209.13932`, 2022.
	Nonconvex-Nonconcave Min-Max Optimization with a Small Maximization Domain D. Ostrovskii, B. Barazandeh, M. Razaviyayn. `arXiv:2110.03950`, 2021.
	Near-Optimal Procedures for Model Discrimination with Non-Disclosure Properties D. Ostrovskii, M. Ndaoud, A. Javanmard, M. Razaviyayn. `arXiv:2012.02901`, 2020.
	Efficient Primal-Dual Algorithms for Large-Scale Multiclass Classification D. Babichev, D. Ostrovskii, F. Bach. `arXiv:1902.03755`, 2019.
	Structure-Blind Deconvolution via Convex Optimization D. Ostrovskii, A. Juditsky. *Available upon request*, 2018.
Book Chapter	**Adaptive Denoising of Signals with Shift-Invariant Structure** D. Ostrovskii, Z. Harchaoui, A. Judistky, A. Nemirovski. `arXiv:1806.04028` *Foundations of Modern Statistics: V. Spokoiny's 60th Anniversary Festscrift*
Journal Papers	**Efficient Search of First-Order Nash Equilibria in Nonconvex-Concave Smooth Min-Max Problems** D. Ostrovskii, A. Lowy, M. Razaviyayn. `arXiv:2002.07919` SIAM Journal on Optimization, 31:4, pp. 2508-2538, 2021.
	Finite-Sample Analysis of M-Estimators Using Self-Concordance D. Ostrovskii, F. Bach. `arXiv:1810.06838` Electronic Journal of Statistics, 15:1, pp. 326-391, 2021.
	Concentration Inequalities for the Exponential Weighting Method Y. Golubev, D. Ostrovskii. `hal-01292413` Mathematical Methods of Statistics, 23:1, pp. 20-37, 2014.
	A Dynamic Channel Reservation Method for Multimedia Streaming in Wi-Fi Mesh Networks A. Krasilov, A. Lyakhov, D. Ostrovskii, E. Khorov. Automation and Remote Control, 74:9, pp. 1460-1473, 2013.
	Analytical Study of the Quality of Links Established by the Neighbourhood Discovery Protocol A. Lyakhov, D. Ostrovskii, E. Khorov. Journal of Communications Technology and Electronics, 57:12, pp. 1314-1321, 2012.
Refereed Conference Papers	**Affine Invariant Covariance Estimation for Heavy-Tailed Distributions** D. Ostrovskii, A. Rudi. `arXiv:1902.03086` COLT 2019
	Beyond Least-Squares: Fast Rates for Regularized Empirical Risk Minimization through Self-Concordance U. Marteau-Ferey, D. Ostrovskii, A. Rudi, F. Bach. `arXiv:1902.03046` COLT 2019

Efficient First-Order Algorithms for Adaptive Signal Denoising
D. Ostrovskii, Z. Harchaoui. `arXiv:1803.11262`
ICML 2018

Structure-Blind Signal Recovery
D. Ostrovskii, Z. Harchaoui, A. Juditsky, A. Nemirovski. `arXiv:1607.05712`
NeurIPS 2016

Adaptive Recovery of Signals by Convex Optimization
Z. Harchaoui, A. Juditsky, A. Nemirovski, D. Ostrovskii. `hal-01250215`
COLT 2015

Dynamic Resource Allocation for MCCA-Based Streaming in Wi-Fi Mesh Networks
E. Khorov, A. Krasilov, A. Lyakhov, D. Ostrovskii.
WiFlex 2013

Analytical Study of Neighborhood Discovery and Link Management in OLSR
E. Khorov, A. Kiryanov, A. Lyakhov, D. Ostrovskii.
IFIP 2012

REVIEWING	**Journals:** Math. Programming (MAPR), SIAM J. on Optimization (SIOPT), Ann. of Statist. (AoS), IEEE Trans. on Inform. Theory (IEEE-IT), Math. of Operations Research (MOR), J. of Machine Learning Research (JMLR), Computational Optim. & Appl. (COAP), Optim. Methods & Software (OMS), J. of Computational & Graphical Statistics (JCGS). **Conferences** (*occasionally*): NeurIPS, ICML, STOC, COLT, ALT.

TEACHING

University of Southern California

2023, Spring:	Analysis of Variance and Regression	4×♟, 3 hrs./wk.
2022, Fall:	Introduction to Mathematical Statistics	15×♟, 3 hrs./wk.
2022, Summer:	Linear Algebra and Linear Differential Equations	12×♟, 6 hrs./wk.
2022, Spring:	Elementary Probability and Statistics	34×♟, 3 hrs./wk.
2021, Fall:	Introduction to Mathematical Statistics	10×♟, 3 hrs./wk.
2019–2021:	Optimization for Machine Learning (invited lectures)	10×♟, 2 hrs./mo.

University of Grenoble (in French)

2017, Spring:	Calculus for Science and Engineering ("Cours-TD")	30×♟, 3 hrs./wk.
2016, Spring:	Calculus for Science and Engineering ("Cours-TD")	30×♟, 3 hrs./wk.
2016, Spring:	Statistical Methods for Biology & Medicine ("TP")	28×♟, 3 hrs./wk.

ORGANIZATION

USC Probability and Statistics Seminar (2022–2023)

Guests: Mateo Díaz (Caltech), Misha Belkin (UCSD), Yian Ma (UCSD), Robi Bhattachargee (UCSD), Qiyang Han (Rutgers), Masoud Zargar (USC), Andrew Lowy (USC).

LONG-TERM VISITS	Université Grenoble Alpes – Anatoli Juditsky, Roland Hildebrand	12/2022–01/2023
	Centrum Wiskunde & Informatica – Peter Grünwald, Wouter Koolen	06/2019
	Centrum Wiskunde & Informatica – Peter Grünwald	06/2018
	University of Washington – Zaid Harchaoui	12/2016–05/2017

TALKS[1]

2023

SIAM Conference on Optimization (OP23), Seattle	i
Georgia Tech, ISyE School	i,j
ENSAE, Paris	j,z
Toulouse School of Economics	i,j
Georgia Tech, School of Mathematics	i,j
Optimization and Statistical Learning 2023, Les Houches	i

2022

Meeting in Mathematical Statistics 2022, Luminy	i
CNRS AI Rising Talents (in top 3 contenders)	j,z
INFORMS Annual Meeting, Indianapolis	i
Georgia Tech – Stochastic Seminar	i
Georgia Tech – ISyE 8813 Guest Lecture	i,z
Statistical Inference and Convex Optimization (SICO 2022), Grenoble	i,z
University of Southern California – Mathematical Finance Colloquium	
École Polytechnique, Paris	j,z
INFORMS Optimization Society Conference (IOS 2022), Greenville	s
Johns Hopkins University – AMS Seminar	j,z
University of Cambridge – StatLab Seminar	j,z

2021

University of Washington – IFDS seminar	i,z
Johns Hopkins University – AMS seminar	i
Southern California Probability Symposium (SCPS 2021)	i,z
Higher School of Economics, Moscow	i
Universitat Pompeu Fabra, Barcelona	j,z
EPFL, Institute of Mathematics	j,z
Weierstrass Institute, Berlin	i,z
École Polytechnique, Paris (×2)	j,z

2019–2020

University of Southern California – Epstein Seminar	
COLT 2019, Phoenix	
Optimization and Statistical Learning 2019, Les Houches	p
Toyota Technological Institute, Chicago	j

2018

ICML 2018, Stockholm	p
Optimization and Learning Workshop, Toulouse	p
CWI-Inria workshop, Paris	
ICML 2018, Stockholm	
CWI seminar, Amsterdam	
SIERRA team seminar, INRIA Paris	
PhD defense, Université Grenoble-Alpes	

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[1]Legend: i – invited talk, z – via Zoom, p – poster presentation, j – job talk, s – session chaired.

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Optimization Without Borders 2017, Les Houches
NeurIPS 2016, Barcelona   p
Université Grenoble Alpes
University of Göttingen   j
IRIT, Toulouse   j
Princeton – ORFE Seminar   j
University of Washington, Seattle
PGMO Days 2016, Paris
COLT 2015, Paris
StatLearn 2015, Grenoble

HONORS   NeurIPS 2019 Best Reviewer (awarded to 400 reviewers out of 4500+)
& AWARDS   COLT 2019 Travel Award
                HDSI Postdoctoral Fellowship at UC San Diego, 2019–2021 (declined)
                ERCIM Alain Bensoussan Postdoctoral Fellowship, 2018–2019
                NVIDIA GPU Grant, 2017
                NIPS 2016 Travel Award
                Abramov-Frolov Fund Scholarship, 2009–2011

LANGUAGES   English   Russian
                  • bilingual proficiency   • mother tongue
                French   German
                  • fluent   • intermediate