

CONTACT INFORMATION	University of Southern California Department of Mathematics Kaprielian Hall, office 406h Phone: (+1) 213 255 6724 Email: dostrovs@usc.edu
WEBSITE	ostrodmit.github.io
OTHER LINKS:	Scholar • GitHub • YouTube
RESEARCH INTERESTS	<ul style="list-style-type: none"> • 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	Tenure-Track Assistant Professor since 08/2023 Georgia Tech – School of Mathematics & H. Milton Stewart School of ISyE (joint app.)
PREVIOUS POSITIONS	Assistant Professor RTPC of Mathematics 08/2021–05/2023 U. of Southern California – Department of Mathematics (promoter: Stanislav Minsker) Postdoctoral Scholar 08/2019–08/2021 U. of Southern California – 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: <i>Adaptive Signal Recovery by Convex Optimization</i> Advisors: Anatoli Juditsky (UGA), Zaid Harchaoui (University of Washington) MSc – Moscow Institute of Physics and Technology 09/2012–08/2014 Thesis: <i>Concentration Inequalities for the Exponential Weighting Method</i> Advisor: Yuri Golubev (Univ. Aix-Marseille, IITP RAS) BSc – Moscow Institute of Physics and Technology 09/2008–08/2012 Thesis: <i>Analytical Study of NHDP Link Management Protocol</i> 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. Juditsky, A. Nemirovski. [arXiv:1806.04028](#)
Foundations of Modern Statistics: V. Spokoiny's 60th Anniversary Festschrift
- 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× $\frac{1}{2}$, 3 hrs./wk.
2022, Fall:	Introduction to Mathematical Statistics	15× $\frac{1}{2}$, 3 hrs./wk.
2022, Summer:	Linear Algebra and Linear Differential Equations	12× $\frac{1}{2}$, 6 hrs./wk.
2022, Spring:	Elementary Probability and Statistics	34× $\frac{1}{2}$, 3 hrs./wk.
2021, Fall:	Introduction to Mathematical Statistics	10× $\frac{1}{2}$, 3 hrs./wk.
2019–2021:	Optimization for Machine Learning (invited lectures)	10× $\frac{1}{2}$, 2 hrs./mo.

University of Grenoble (in French)

2017, Spring:	Calculus for Science and Engineering (“Cours-TD”)	30× $\frac{1}{2}$, 3 hrs./wk.
2016, Spring:	Calculus for Science and Engineering (“Cours-TD”)	30× $\frac{1}{2}$, 3 hrs./wk.
2016, Spring:	Statistical Methods for Biology & Medicine (“TP”)	28× $\frac{1}{2}$, 3 hrs./wk.

ORGANIZATION USC Probability and Statistics Seminar (2022–2023)

Guests: Mateo Díaz (Caltech), Misha Belkin (UCSD), Yian Ma (UCSD), Robi Bhattacharjee (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

2023	
SIAM Conference on Optimization (OP23), Seattle	i
ENSAE, Paris – Job Candidate Seminar	j,z
Toulouse School of Economics – Job Candidate Seminar	i,j
Georgia Tech, Department of Mathematics – Job Candidate Seminar	i,j
Optimization and Statistical Learning 2023, Les Houches	i
Toulouse School of Economics	j,z
2022	
Meeting in Mathematical Statistics 2022, Luminy	i
CNRS AI Rising Talents – Job Interview (selected among 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	

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

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 & AWARDS	NeurIPS 2019 Best Reviewer (awarded to 400 reviewers out of 4500+)
	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