

| | |
|------------------------|---|
| CONTACT INFORMATION | Georgia Institute of Technology School of Mathematics Office: Skiles 263 Phone: (+1) 213 255 6724 Email: ostrov@gatech.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 hypothesis 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 ($\times 2/3$) Georgia Tech – H. Milton Stewart School of Industrial and Systems Engineering ($\times 1/3$) |
| PREVIOUS POSITIONS | Assistant Professor of Mathematics 08/2021–07/2023 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, 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

Georgia Tech:

| | | |
|-------------|--|-------------------------------|
| 2024, Spg: | Statistical Estimation (Math 6262) | 3 hrs/wk |
| 2023, Fall: | Introduction to Linear Algebra (Math 1553) | 100× $\frac{1}{2}$, 2 hrs/wk |

University of Southern California:

| | | |
|-------------|--|------------------------------|
| 2023, Spg: | Analysis of Variance and Regression (Math 542) | 4× $\frac{1}{2}$, 3 hrs/wk |
| 2022, Fall: | Introduction to Mathematical Statistics (Math 541b) | 15× $\frac{1}{2}$, 3 hrs/wk |
| 2022, Smr: | Linear Algebra and Differential Equations (Math 225) | 12× $\frac{1}{2}$, 6 hrs/wk |
| 2022, Spg: | Elementary Probability and Statistics (Math 208) | 34× $\frac{1}{2}$, 3 hrs/wk |
| 2021, Fall: | Introduction to Mathematical Statistics (Math 541b) | 10× $\frac{1}{2}$, 3 hrs/wk |
| 2019–2021: | Optimization for Machine Learning (invited lectures) | 10× $\frac{1}{2}$, 2 hrs/mo |

Université Grenoble Alpes (in French):

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

ORGANIZATION

Georgia Tech Mathematics Colloquium (2023–2024) – with Alex Dunn & Gong Chen.
Guests: Hong Wang (NYU Courant), Weijing Liao (Georgia Tech), Suvrit Sra (MIT).

ISyE seminar (2023–2024) – occasionally. **Guest:** Nikita Zhivotovskiy (UC Berkeley).

USC Probability and Statistics Seminar (2022–2023) – with Stas Minsker & Chris Heil.
Guests: Mateo Díaz (Caltech), Misha Belkin (UCSD), Yian Ma (UCSD), Robi Bhat-tachargee (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 | 06/2019 |
| | Centrum Wiskunde & Informatica – Peter Grünwald | 06/2018 |
| | University of Washington – Zaid Harchaoui | 12/2016–05/2017 |

TALKS¹

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 | |

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

ICML 2018, Stockholm
 CWI seminar, Amsterdam
 SIERRA team seminar, INRIA Paris
 PhD defense, Université Grenoble Alpes

2015–2017

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
 PGM 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 |
| • quasi-bilingual proficiency | • mother tongue |
| French | German |
| • fluent | • intermediate |