

CONTACT INFORMATION	University of Southern California Department of Mathematics Kaprielian Hall, office 406h Phone: (+1) 213 713 5575 Email: dostrovs@usc.edu
WEBSITE	ostrodmitt.github.io
GITHUB	github.com/ostrodmitt
RESEARCH INTERESTS	<ul style="list-style-type: none"> • Statistics: robust and adaptive estimation, testing, sparsity, nonparametrics. • Optimization: first-order methods, minimax problems, performance estimation. • Learning theory: fast convergence rates for smooth losses. • Signal processing: estimation with shift-invariant structure, super-resolution.
CURRENT POSITION	Assistant Professor (RTPC) of Mathematics <i>09/2021–present</i> University of Southern California
PREVIOUS POSITIONS	Postdoctoral Scholar <i>08/2019–08/2021</i> University of Southern California, Viterbi School of Engineering Hosted by Meisam Razaviyayn ERCIM Alain Bensoussan Postdoctoral Fellow <i>02/2018–06/2019</i> Inria Paris, France Hosted by Francis Bach Visiting PhD Student <i>12/2016–05/2017</i> University of Washington, Seattle Hosted by Zaid Harchaoui
DEGREES	PhD, University of Grenoble <i>10/2014–01/2018</i> <ul style="list-style-type: none"> • Thesis: <i>Adaptive Signal Recovery by Convex Optimization</i> Advisors: Anatoli Juditsky, Zaid Harchaoui MSc, Moscow Institute of Physics and Technology <i>09/2012–07/2014</i> <ul style="list-style-type: none"> • Thesis: <i>Concentration Inequalities for the Exponential Weighting Method</i> Advisor: Yuri Golubev BSc, Moscow Institute of Physics and Technology <i>09/2008–07/2012</i> <ul style="list-style-type: none"> • Thesis: <i>Analytical Study of NHDP Link Management Protocol</i>
PREPRINTS AND WORKING PAPERS	Near-Optimal Procedures for Model Discrimination with Non-Disclosure Properties D. Ostrovskii, M. Ndaoud, A. Javanmard, M. Razaviyayn. <i>arXiv:2012.02901, 2020</i> Efficient Primal-Dual Algorithms for Large-Scale Multiclass Classification D. Babichev, D. Ostrovskii, F. Bach. <i>arXiv:1902.03755, 2019</i>

Structure-Blind Deconvolution via Convex Optimization
D. Ostrovskii, A. Juditsky. *Available upon request, 2018*

BOOK CHAPTERS Adaptive Denoising of Signals with Shift-Invariant Structure
D. Ostrovskii, Z. Harchaoui, A. Juditsky, A. Nemirovski. *arXiv:1806.04028, 2020*
Foundations of Modern Statistics: V. Spokoyny's 60th Anniversary Festschrift, to appear

JOURNAL
PUBLICATIONS Efficient Search of First-Order Nash Equilibria in Nonconvex-Concave Smooth Min-Max Problems
D. Ostrovskii, A. Lowy, M. Razaviyayn. *arXiv:2002.07919, 2020*
SIAM Journal on Optimization, to appear

Finite-Sample Analysis of M-Estimators Using Self-Concordance
D. Ostrovskii, F. Bach. *arXiv:1810.06838, 2018*
Electronic Journal of Statistics, vol. 15, no. 1, pp. 326-391, 2021

Concentration Inequalities for the Exponential Weighting Method
Y. Golubev, D. Ostrovskii.
Mathematical Methods of Statistics, 23:1, 2014, pp. 20-37

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, 2013, pp. 1460-1473

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, 2012, pp. 1314-1321

REFEREED
CONFERENCE
PUBLICATIONS 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 SERVICE	Mathematical Programming, SIAM Journal on Optimization (SIOPT), Annals of Statistics, Journal of Machine Learning Research, NeurIPS, ICML, COLT, ALT
TEACHING	<p>USC, 2021–2022: Introduction to Mathematical Statistics (instructor)</p> <p>USC, 2019–2021: Optimization for Machine Learning (invited lecturer)</p> <p>UGA, 2015–2017: Calculus for Science and Engineering (in French, “Cours–TD”)</p> <p>UGA, 2015–2016: Statistical Methods for Biology and Medicine (in French, “TP”)</p>
TALKS	<p>2021</p> <ul style="list-style-type: none"> • Johns Hopkins University, AMS seminar invited talk <i>Nonconvex-Nonconcave Min-Max Optimization with a Small Maximization Domain</i> • Universitat Pompeu Fabra, Barcelona job talk, zoom University of Southern California École Polytechnique Fédérale de Lausanne job talk, zoom Weierstrass Institute, Berlin zoom <i>Near-Optimal Methods for Model Discrimination with Non-Disclosure Properties</i> <p>2019</p> <ul style="list-style-type: none"> • University of Southern California, Epstein Seminar <i>On Fast Rates in Empirical Risk Minimization Beyond Least-Squares</i> • COLT 2019, Phoenix Optimization and Statistical Learning workshop, Les Houches (poster) <i>Affine Invariant Covariance Estimation for Heavy-Tailed Distributions</i> • Toyota Technological Institute, Chicago <i>Algorithmic Efficiency and Statistical Optimality in Empirical Risk Minimization</i> <p>2018</p> <ul style="list-style-type: none"> • ICML 2018, Stockholm (poster) Optimization and Learning workshop, Toulouse (poster) CWI–Inria Workshop, Paris <i>Finite-Sample Analysis of M-Estimators Using Self-Concordance</i> • ICML 2018, Stockholm <i>Efficient First-Order Algorithms for Adaptive Signal Denoising</i> • CWI seminar, Amsterdam SIERRA Team seminar, INRIA, Paris PhD Thesis Defense, Univ. Grenoble Alpes <i>Adaptive Signal Recovery by Convex Optimization</i> <p>2015–2017</p> <ul style="list-style-type: none"> • NeurIPS 2016, Barcelona (poster) <i>Structure-Blind Signal Recovery</i> • Université Grenoble Alpes University of Göttingen IRIT, Toulouse ORFE, Princeton University of Washington, Seattle PGMO Days 2016, Paris COLT 2015, Paris <i>Adaptive Signal Denoising by Convex Optimization</i>

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
Increased State Academic Scholarship of the Russian Government, 2012–2014
Abramov-Frolov Fund Scholarship, 2009–2011

SCIENTIFIC SCHOOLS Structural Inference 2016, Brodten
GPU for Signal and Image Processing 2015, Grenoble
Machine Learning Summer School 2015, Kyoto
Khronos-Persyvact Spring School 2015, Grenoble
Microsoft School on Algorithms for Massive Data 2013, Moscow

OTHER ACTIVITIES Mathematical blog: <https://ostrodmit.github.io/blog>

LANGUAGES English (quasi-native level, 113/120 ToEFL) Russian (native)
French (fluent, 5 years of living in France) German (written/oral comprehension)