Dmitrii M. Ostrovskii — Curriculum Vitæ (May 1, 2019)

Contact Information

INRIA - SIERRA project-team
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Website

ostrodmit.github.io

Current Position

ERCIM Alain Bensoussan Postdoctoral Fellow *Feb. 2018 – present*
Host institution: INRIA Paris
Hosts: Francis Bach (INRIA Paris), Peter Grünwald (CWI Amsterdam)

Research Interests

- Statistical learning theory
- Robust estimation
- Convex optimization
- Statistical signal processing

Degrees

PhD, Université Grenoble Alpes *Oct. 2014 – Jan. 2018*

- Thesis: *Adaptive Signal Recovery by Convex Optimization*
  Advisers: Anatoli Juditsky, Zaid Harchaoui, Laurent Desbat

MSc, Moscow Institute of Physics and Technology *Sep. 2012 – Jul. 2014*

- Thesis: *Concentration Inequalities for the Exponential Weighting Method*
  Adviser: Yuri Golubev

BSc, Moscow Institute of Physics and Technology *Sep. 2008 – Jul. 2012*

- Thesis: *Analytical Study of NHDP Link Management Protocol*
  Adviser: Andrey Lyakhov

Preprints

Efficient Primal-Dual Algorithms for Large-Scale Multiclass Classification
D. Babichev, D. Ostrovskii, F. Bach (equal contribution of the first two authors)
Submitted 2019, arXiv:1902.03755

Finite-Sample Analysis of M-Estimators using Self-Concordance
D. Ostrovskii, F. Bach
Submitted 2018, arXiv:1810.06838

Adaptive Denoising of Signals with Shift-Invariant Structure
D. Ostrovskii, Z. Harchaoui, A. Judistky, A. Nemirovski
Submitted 2018, arXiv:1806.04028

Adaptive Deconvolution by Convex Optimization
D. Ostrovskii, Z. Harchaoui, A. Judistky, A. Nemirovski
In preparation 2018, available upon request

Conference Publications

Affine Invariant Covariance Estimation for Heavy-Tailed Distributions
D. Ostrovskii, A. Rudi
COLT 2019, arXiv:1902.03086

Beyond Least-Squares: Fast Rates for Regularized Empirical Risk Minimization through Self-Concordance
U. Marteau-Ferey, D. Ostrovskii, A. Rudi, F. Bach
COLT 2019, arXiv:1902.03046

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

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

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

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, and D. Ostrovskii
IFIP 2012

Journal Publications

Concentration Inequalities for the Exponential Weighting Method
Y. Golubev and D. Ostrovskii
Mathematical Methods of Statistics, vol. 23, no. 1, pp. 20-37, 2014

A Dynamic Channel Reservation Method for Multimedia Streaming in Wi-Fi Mesh Networks
A. Krasilov, A. Lyakhov, D. Ostrovskii, and E. Khorov
Automation and Remote Control, vol. 74, no. 9, pp. 1460-1473, 2013

Analytical Study of the Quality of Links Established by the Neighbourhood Discovery Protocol
A. Lyakhov, D. Ostrovskii, and E. Khorov
Journal of Communications Technology and Electronics, vol. 57, no. 12, pp. 1314-1321, 2012

Research Experience

Visting Researcher, University of Washington — *Dec. 2016 – May 2017*

Efficient Algorithms for Large-Scale and Robust Supervised Learning
Hosted by Zaid Harchaoui

Research Intern — INRIA Grenoble, 2014
Research Assistant — Institute for Information Transmission Problems, 2011-2013

Service

Reviewer:

COLT 2016, NIPS 2016, ICML 2017, ALT 2018, NIPS 2018, NIPS 2019, COLT 2019

Organization

Khronos-Persyvact Spring School 2015, Grenoble

Teaching

2015 – 2017

Calculus for science and engineering (in French) Univ. Grenoble Alpes

2015 – 2016

Statistical methods in biology (in French) Univ. Grenoble Alpes

Talks

2019

Toyota Technological Institute at Chicago

On Algorithmic Efficiency and Statistical Optimality in Empirical Risk Minimization

2018

CWI–INRIA Workshop, Paris

Finite-Sample Analysis of M-Estimators Using Self-Concordance

ICML 2018, Stockholm

Efficient First-Order Algorithms for Adaptive Signal Denoising

CWI seminar, Amsterdam

Adaptive Signal Recovery by Convex Optimization

SIERRA Team seminar, INRIA, Paris

PhD Defense, Université Grenoble Alpes

2017

Université Grenoble Alpes

Adaptive Signal Denoising by Convex Optimization

IMS, University of Göttingen

IRIT, Toulouse

ORFE, Princeton

University of Washington, Seattle

2016

PGMO Days 2016, Palaiseau

2015

COLT 2015, Paris

StatLearn 2015, Grenoble

Poster sessions

2019

Optimization and Statistical Learning workshop, Les Houches

Affine Invariant Covariance Estimation for Heavy-Tailed Distributions

2018

Optimization and Learning workshop, Toulouse

Nonasymptotic Analysis of M-estimators via Self-Concordance

ICML 2018, Stockholm

2017

Optimization without Borders, Les Houches

2016

NIPS 2016, Barcelona

Structure-Blind Signal Recovery

2015

Statlearn 2015, Grenoble

Near-optimal pointwise denoising by convex optimization

Scientific schools

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

Honors

HDSI Podtdoctoral Felloship at UC San Diego, 2019–2021 (declined)
ERCIM Alain Bensoussan Postdoctoral Fellowship, 2018–2019 (completed)
NIPS 2016 Travel Grant
Increased State Academic Scholarship of the Russian Government, 2012–2014
Abramov-Frolov Fund Scholarship, 2009–2011

Other Activities

Mathematical blog: `https://ostrodmit.github.io/blog`

Language Skills

English (proficient)
French (fluent)
Russian (native)
German (basic)