

Quentin Paris

Curriculum Vitae

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Academic positions

- Since 2017 **Assistant Professor**, *HSE University*, Faculty of Computer Science, Department of Data Analysis and Artificial Intelligence & HDI Laboratory.
Moscow, Russia
- 2014-2017 **Assistant Professor**, *HSE University*, Faculty of Economics, Department of Statistics and Data Analysis & LSA Laboratory.
Moscow, Russia
- 2013-2014 **Postdoctoral Fellow**, *Center for Research in Economics and Statistics (CREST)*.
Paris, France

Education

- 2013 **Ph.D. in Statistics**, *ENS Cachan, Bretagne & Université de Rennes 1*, Thesis title: "A Contribution to Complexity Reduction in Statistics", Supervisors: Pr. Benoît Cadre and Pr. Bruno Pelletier.
Rennes, France
- 2011 **Agrégation de Mathématiques**.
- 2010 **M.Sc. in Mathematics**, *ENS Cachan, Bretagne & Université de Rennes 1*.
Rennes, France
- 2008 **B.Sc. in Mathematics**, *University Paris Sud (Paris 11)*.
Paris, France

Research

Interests My general interests are in Statistics and Learning Theory. My past work, up to 2017, has addressed classical and theoretical problems in the context of complex or high-dimensional data. In the past few years, I have developed an interest for problems arising at the intersection with Statistics, Learning Theory, Geometry and Optimal Transport.

Submitted papers **The exponentially weighted average forecaster in geodesic spaces of non-positive curvature**, *Q. Paris*.

<https://arxiv.org/abs/2002.00852>

Fast convergence of empirical barycenters in Alexandrov spaces and the Wasserstein space, *T. Le Gouic, Q. Paris, P. Rigollet and A. Stromme*.

<https://arxiv.org/abs/1908.00828>

- Published papers **Convergence rates for empirical barycenters in metric spaces: curvature, convexity and extendible geodesics**, *A. Ahidar-Coutrix, T. Le Gouic and Q. Paris*.
Probability Theory and Related Fields, 2019
- On the occupancy problem for a regime switching model**, *M. Grabchak, M. Kelbert and Q. Paris*.
Journal of Applied Probability, 57(1):53-77, 2020
- A stability property of k -means clustering**, *T. Le Gouic and Q. Paris*.
Electronic Journal of Statistics, 12(2):4239-4263, 2018.
- On the prediction loss of the lasso in the partially labeled setting**, *P. Bellec, A. Dalalyan, E. Grappin and Q. Paris*.
Electronic Journal of Statistics, 12(2):3443-3472, 2018.
- On the exponentially weighted aggregate with the Laplace prior**, *A. Dalalyan, E. Grappin and Q. Paris*.
The Annals of Statistics, 46(5):2452-2478, 2018.
- Finite sample properties of the mean occupancy counts and probabilities**, *G. Decrouez, M. Grabchak and Q. Paris*.
Bernoulli, 24(3):1910-1941, 2018.
- Cox process functional learning**, *G. Biau, B. Cadre and Q. Paris*.
Statistical Inference for Stochastic Processes, 18:1-21, 2015.
- Minimax adaptive dimension reduction for regression**, *Q. Paris*.
Journal of Multivariate Analysis, 128:186-202, 2014.
- On Hölder fields clustering**, *B. Cadre and Q. Paris*.
Test, 21:301-316, 2012.
- Research group Co-founder of the G2PS research group on the interactions of Geometry, Graph Theory, Probability and Statistics.
<https://www.g2ps.org/>
- Reviewer for Annals of Statistics, Electronic Journal of Statistics, Bernoulli, Annales de l'Institut Henry Poincare, Journal of Statistical Planning and Inference, ESAIM Probability and Statistics, COLT, NeurIPS.
- Research visits Institute for Mathematical Stochastics, Georg-August Universitat, Gottingen.
Mini course on barycenters in the Wasserstein space. (November 24 to 31, 2019. Invited by Pr. Axel Munk)
IAS, Princeton (February 4 to 18, 2019. Collaboration with Pr. Philippe Rigollet)
Ecole Centrale Marseille (June 1 to June 30, 2016. Collaboration with Dr. Thibaut Le Gouic)
MIT (March 15 to May 15, 2016. Collaboration with Pr. Philippe Rigollet)
Ecole Centrale Marseille (May 30 to June 7, 2015. Collaboration with Dr. Thibaut Le Gouic)
CREST (April 4 to April 19, 2015. Collaboration with Pr. Arnak Dalalyan)

Conferences

(●): Invited speaker; (*): Organization committee; (○): Participation.

Upcoming conferences (●) **Bernoulli-IMS 10th World Congress in Probability and Statistics**, *July 19-23, 2021, Seoul, Korea*, Invited speaker in the organised session "Optimal Transport".

<https://www.wc2020.org/>

(●) **24th International Symposium on Mathematical Theory of Networks and Systems (MTNS 2020)**, *August 24-28, 2020, Cambridge, UK*, Invited speaker in the organised session "Statistical Learning in Riemannian Manifolds".

<https://mtns2020.eng.cam.ac.uk/>

(●) **Conference of the International Indian Statistical Association (IISA 2020)**, *May 20-23, 2021, University of Illinois at Chicago, USA*, Invited speaker in the organised session "Statistical Applications of Optimal Transport".

<https://www.intindstat.org/iisaconference2020/>

Past conferences (○) **Math of Machine Learning (HDI Lab Summer School)**, *February 19-22, 2020, Sirius University, Sochi, Russia*.

<https://sochy.mml2020.ru/>

(●) **Recent Advances in Mass Transportation**, *September 23-27, 2019, Poncelet Center and HSE Moscow, Russia*.

<https://www.poncelet.ru/conference/recent-advances-mass-transportation>

(*) **Structural Inference in High-Dimensional Models 2**, *August 26-30, 2019, HSE (Kochubey Mansion), Pushkin, Russia*.

<https://cs.hse.ru/hdilab/sihdm/2019/>

(○) **49th Saint-Flour Probability Summer School**, *July 7-19, 2019, Saint-Flour, France*.

<http://recherche.math.univ-bpclermont.fr/stflour/stflour-en.php>

(●) **Workshop on Multivariate Data Analysis**, *April 15-17, 2019, Limassol, Cyprus*, Invited speaker in the organised session "Optimal Transport Methods in Statistics".

<http://cmstatistics.org/CRONOSMDA2019/>

(●) **Meeting in Mathematical Statistics (MMS 2018)**, *December 17-21, 2018, Frejus, France*.

<http://pierre.bellec.eu/MMS2018-backup/>

(○) **Optimal Transport and Applications**, *November 12-16, 2018, Centro Ennio De Giorgi, Pisa, Italy*.

<http://www.crm.sns.it/event/436/index.html#title>

(●)(*) **Structural Inference in High-Dimensional Models 1**, *September 5-8, 2018, HSE Moscow, Russia*.

<https://cs.hse.ru/hdilab/sihdm/2018/>

(○) **Workshop on Statistical Optimal Transport**, *July 24-25, 2018, Skoltech University, Skolkovo, Russia*.

<https://www.skoltech.ru/en/2018/07/conference-statistical-optimal-transport/>

(o) **Information Theory: Inequalities, Distances and Analysis (Summer School)**, June 25-29 , 2018, Institut Henry Poincare (IHP) Paris, France.
http://sites.math.u-pem.fr/summerschool.2018/index.php/Main_Page

(•) **Mass Transportation Theory: Opening Perspectives in Statistics, Probability and Computer Science**, June 4-8 , 2018, Valladolid, Spain.
<http://www.imuva.uva.es/otinspandcs2018/>

(*) **New Frontiers in High-Dimensional Probability and Statistics**, February 23-24, 2018, HSE Moscow, Russia.

(o) **CFE-CMStatistics 2017**, December 16-18, 2017, London, UK.
<http://www.cmstatistics.org/CMStatistics2017/>

(o) **Meeting in Mathematical Statistics (MMS 2016)**, December 12-16 , 2016, Frejus, France.
http://imagine.enpc.fr/~dalalyan/MMS2016_Participants.html

(o) **Meeting in Mathematical Statistics (MMS 2015)**, December 13-18 , 2015, Frejus, France.
<https://adalalyan.github.io/MMS2015.html>

Recent teaching

Since 2019 **Advanced Probability**, *M.Sc. program Data Science*, HSE University, Faculty of Computer Science, Lectures and seminars.
Moscow, Russia

Since 2017 **High Dimensional Statistics**, *M.Sc. program Statistical Learning Theory*, Faculty of Computer Science at HSE, Lectures and seminars.
Moscow, Russia

Statistical Learning Theory, *M.Sc. program Data Science*, Faculty of Computer Science at HSE, Lectures and seminars.
Moscow, Russia

2018-2019 **Introduction to functional analysis**, *Yandex School of Data Analysis*, Lectures.
Moscow, Russia

Miscellaneous

Citizenship French. Born on February 18, 1986, in London UK.

Status Married. One child.

Languages French, English, Russian