Quentin Berthet

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⋊ Positions

- since **2015**: University Lecturer, DPMMS, University of Cambridge
- since **2017**: Affiliated Lecturer in Mathematics of Information, CCIMI
- Feb-Apr/**2019**: Invited researcher, INRIA Paris
- since **2016**: Turing fellow, Alan Turing Institute
- since **2015**: Fellow, St John's College
- **2014-2015**: CMI Postdoctoral fellow, California Institute of Technology

⋊ Education

- **2009–2014**: Ph.D., Princeton University, Advisor: Philippe Rigollet
- **2006–2009**: Undergraduate degree, Ecole Polytechnique
- **2004–2006**: Classes préparatoires, Lycée Louis-Le-Grand

⋊ Awards and grants

- **2019**: Bernoulli Society New Researcher Award (Honorable mention)
- **2016**: Isaac Newton Trust Early Career Support Scheme
- **2013**: Best Paper Award, Peer-reviewed Conference on Learning Theory (COLT)
- **2009**: Gordon Y.S. Wu Fellowship in Engineering, Princeton University

⋊ Publications

Full list on Google scholar profile:

`http://scholar.google.com/citations?user=bHwGZjcAAAAJ`

1. Regularized Contextual Bandits, X. Fontaine, Q. Berthet, and V.Perchet, Accepted at AISTATS 2019
2. Statistical Windows in Testing for the Initial Distribution of a Reversible Markov Chain, Q. Berthet and V. Kanade, Accepted at AISTATS 2019
3. Unsupervised Embedding Alignment with Wasserstein Procrustes, A. Joulin, E. Grave and Q. Berthet, Accepted at AISTATS 2019
4. Detection of Planted Solutions for Flat Satisfiability Problems, Q. Berthet and J.S. Ellenberg, Accepted at AISTATS 2019
5. Optimal Link Prediction with Matrix Logistic Regression, N. Baldin and Q. Berthet, Preprint, (2018)
6. Exact Recovery in the Ising Blockmodel, Q. Berthet, P. Rigollet, and P. Srivastava, Annals of Statistics, to appear, (2018)
7. Bandit Optimization with Upper-Confidence Frank-Wolfe, Q. Berthet and V.Perchet, Advances in Neural Information Processing Systems (NeurIPS) **Spotlight**, (2017),
8. Average-case Hardness of RIP Certification, T. Wang, Q. Berthet, and Y. Plan, Advances in Neural Information Processing Systems (NeurIPS) (2016)
9. Resource Allocation for Statistical Estimation, Q. Berthet and V. Chandrasekaran, Proceedings of the IEEE, 104 (1), 111-125, (2016)
10. Statistical and Computational Trade-offs in Estimation of Sparse Principal Components, T. Wang, Q. Berthet, and R. J. Samworth, Annals of Statistics, 44(5), 1896-1930, (2016)
11. Optimal Testing for Planted Satisfiability Problems, Q. Berthet, Electronic Journal of Statistics, 9, 298-317, (2015)
12. Complexity Theoretic Lower Bounds for Sparse PCA, Q. Berthet and P. Rigollet, J. Mach. Learn. Res., 30, 1046-1066, (2013) **Best Paper award at COLT 2013**
13. Optimal detection of Sparse Principal Components in High Dimension, Q. Berthet and P. Rigollet, Annals of Statistics, 41(4), 1780-1815., (2013)

⋊ Invited presentations

Tutorial or keynote presentation:

- IHES, *Workshop on Computational and Statistical Trade-offs in Learning*, 03/2016
- Eurandom, *YES IX Workshop: Statistics and Computational Complexity*, 03/2018
- University of Leiden: *van Dantzig Seminar*, 03/2018

Selected invited presentations:

- IES Cargese, *Summer school on Machine Learning and Statistical Physics*, 08/2018
- Joint Statistical Meetings, *Invited session: Statistical Physics, Information Theory*, 07/2018
- CRM Montreal: *Workshop on Combinatorial Statistics*, 04/2018
- Isaac Newton Institute: *Workshop on Combinatorial Statistics*, 04/2018
- CIRM Luminy: *Meeting in Mathematical Statistics*, 12/2017
- Simons Institute, Berkeley: *Workshop on Optimization, Statistics, and Uncertainty*, 12/2017
- Ecole de Physique des Houches: *Optimization and Statistical Learning*, 03/2017
- IMS Asia-Pacific Meeting: *Invited session: Recent Advances in Big Data Inference*, 06/2016
- Oberwolfach: *Computationally Efficient Inference for Large-scale Data*, 03/2016
- Fields Institute, Toronto: *Workshop on Optimization in Big Data*, 02/2015

Selected seminar presentations:

University of Oxford, Ecole Polytechnique Fédérale de Lausanne, New York University, London School of Economics, INRIA Lille, University of Cambridge, UC Irvine, UC San Diego, UT Austin, Yale University, U. of Wisconsin, Caltech, MIT, INRIA Paris, Princeton.

⋊ Conference and seminar organization

- ISMP 2018, Session organizer on "Optimization in Statistical Learning" (07/2018)
- Alan Turing Institute workshops organization (10/2017) and (06/2018)
- Statistics Seminar organizer, University of Cambridge (2015-2018)

⋊ Editorial service

- Associate editor - ESAIM: Probability and Statistics (since 2017)
- Associate editor - Journal of the Royal Statistical Society Series B (since 2018)
- Program committee member - COLT 2018
- Best reviewer award - NeurIPS 2017

Reviewer for leading journals and conferences in statistics, machine learning, and computer science:

Annals of Statistics, Annals of Applied Probability, Probability Theory and Related Fields, Bernoulli Journal, Electronic Journal of Statistics, IEEE Transactions on Information Theory, Journal of the Royal Statistical Society Series B, Journal of Machine Learning Research, Journal of Multivariate Analysis, AISTATS, COLT, ICLR, ICML, NeurIPS, FOCS, STOC.

⋊ Teaching

- Topics in Statistical Theory, Graduate course (Lent 2016)
- Principles of Statistics, Undergraduate course (Michaelmas 2016, 2017, 2018)
- Optimisation, Undergraduate course (Easter 2016, 2018, 2019)
- Supervisions for undergraduate Mathematics courses (since 2015)