

Guillaume Basse

CONTACT INFORMATION

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EDUCATION

- 2018 Ph.D, Statistics, Harvard University
Dissertation: "New frontiers in causal inference: learning from experiments in a networked world"
Advisor: Edoardo Airoldi
- 2013 MA, Statistics, Harvard University
- 2011 BS/MS Engineering, École Centrale Paris
- 2009 BA, Applied Economics, Université Paris Dauphine

HONORS AND FELLOWSHIPS

- 2014 Google Ph.D Fellowship in Statistics for North America
Awarded annually to one graduate student in US / Canada, for "exceptional research in Computer Science and related disciplines."
- 2011 Jean Gaillard Memorial Fellowship

RESEARCH

Publications

- Basse, G.W., and Airoldi, E.M. (2017+). "Model-assisted design of experiments in the presence of network-correlated outcomes." *Biometrika* (just-accepted)
- Basse, G.W., and Feller, A. (2017+). "Analyzing two-stage experiments in the presence of peer effects." *Journal of the American Statistical Association* (just-accepted)
- Basse, G.W. and Airoldi, E.M. (2017+). "Limitations of design-based causal inference and A/B testing under arbitrary and network interference." *Sociological Methodology* (just-accepted)
- Basse, G.W., Azari, H., and Lambert, D. (2016). "Randomization and the pernicious effects of limited budgets on auction experiments." *AISTATS'16*
- Basse, G.W., Pillai, N., and Smith, A. (2016). "Parallel Markov Chain Monte Carlo via spectral clustering." *AISTATS'16*

Under review

- Basse, G.W., Feller, A., and Toulis, P. "Exact tests for two-stage randomized designs in the presence of interference." (arxiv preprint: <https://arxiv.org/abs/1709.08036>)
- Basse, G.W., Volfovsky, A. and Airoldi E.M. "Observational studies with unknown time of treatment." (arxiv preprint: <https://arxiv.org/abs/1601.04083>)

Working papers

- Basse, G.W., Pouget-Abadie, J., Tran, D., Xu, Y., Gosh, S., and Airoldi, E.M. "Elements of A/B testing for link recommendation algorithms."

POSTERS AND TALKS

- 2017 ACIC, "Exact tests for two-stage randomized designs in the presence of interference."
- 2017 GraphEx, "Model-assisted design of experiments with network-correlated outcomes." (Poster)
- 2016 JSM, "Model-assisted design of experiments on networks."
- 2013 CODE@MIT, "Optimal design of experiments with network-correlated outcomes."

TEACHING
EXPERIENCE

2015 (TF) Stat 244: Generalized Linear Models
2015 (Instructor) Stat 314: Reading group for colloquium seminar
2014 (TF) Stat 314: Reading group for colloquium seminar
2012 (TF) Stat 104: Introduction to quantitative methods for the social sciences

PROFESSIONAL
EXPERIENCE

(May - Aug. 2015) **Google, Inc**, *Decision support analyst (intern)*

As a decision support analyst, I worked with my hosts (Hossein Azari and Diane Lambert) in designing a number of experiments on Google's Ad-Exchange platform. I was involved with each step of the process: understanding the problem with the previous designs, coming up with new designs, and creating a pipeline for the analysis. I was also in regular contact with the project's tech lead (Max Lin) and product manager (George Levitte).

(Jan. - July 2011) **Saint-Gobain**, *Internal audit (intern)*

As an internal auditor, I was dispatched from the headquarters in Paris to local branches to examine their processes, including supply-chain, finance and operations. In the course of my missions, I was sent to Poland, Germany, and the United States.

(July 2010 - Jan. 2011) **Weizmann Institute of Science**, *Visiting research assistant*

During the six months I spent it the Weizmann Institute, I worked in Prof. Ehud Shapiro's lab on computational methods for recursive assembling of DNA molecules from oligonucleotide sequences.

OTHER
INFORMATION

Citizenship: Senegalese, French
Current Visa: F1