Guillaume Basse

CONTACT
INFORMATION

2500 Columbia St
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ACADEMICS

July 2019 - present **Assistant Professor, Stanford University**
Department of Management Science & Engineering
Department of Statistics

2018-2019 **Postdoctoral fellow, UC Berkeley**
Department of Statistics
Advisor: Peng Ding

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

2018 National Study of Learning Mindsets Early Career Fellowship

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

PUBLICATIONS

Gaebler, J., Cai W., Basse, G.W., Shroff, R., Goel S., and Hill J. (2020+) "Deconstructing claims of post-treatment bias in observational studies of discrimination"

Pashley, N.E. Basse, G.W., and Miratrix, L.W. (2020+) "Conditional as-if analyses in randomized experiments" (Under Review)

Guo, K., and Basse, G.W. (2020+) "The Oaxaca-Blinder estimator" (Under Review)

Basse, G.W., and Bojinov, I. (2020+) "A general theory of identification" (preprint)

Rosenman, E., Basse, G.W, Owen, A., and Baiocchi, M. (2020+) "Combining experimental and observational datasets using shrinkage estimators" (preprint)

Puelz, D., Basse, G.W., Feller, A., and Toulis, P. (2019+) "A graph-theoretic approach to randomization tests of causal effects under general interference" (In revision)

Basse, G.W., Ding, Y., and Toulis, P. (2019) "Minimax Crossover Designs" (Under review)

Basse, G.W., Feller, A., Ding, P., and Toulis, P. (2019) "Randomization tests for peer effects in group formation experiments" (In revision)

Basse, G.W., Feller, A., and Toulis, P. (2019) "Exact tests for two-stage randomized designs in the presence of interference." *Biometrika*

Basse, G.W., and Airoldi, E.M. (2018). "Model-assisted design of experiments in the presence of network-correlated outcomes." *Biometrika*

Basse, G.W., and Feller, A. (2018). "Analyzing two-stage experiments in the presence of peer effects." *Journal of the American Statistical Association*

Basse, G.W. and Airoldi, E.M. (2018). "Limitations of design-based causal inference and A/B testing under arbitrary and network interference." *Sociological Methodology*

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*

GRANTS AND
FUNDING

2020 Stanford Impact Lab (Start Up Funding)

2020 King's Center on Global Development (Junior Faculty Research Grant)

PROFESSIONAL
SERVICE

2020 Co-founded the Online Causal Inference Seminar

POSTERS AND
TALKS

2020 Google Ads Metrics Seminar: "Minimax designs for estimating the learning and instantaneous effects"

2020 SAMSI webinar: "Sensitivity analysis under interference"

2019 SAMSI workshop: "Policing experiment in Medellin: practical considerations in design and analysis"

2019 JSM, Invited Session: "Limitations of A/B testing in network settings"

2019 LinkedIn Applied Research Group, "Minimax designs for estimating the learning and instantaneous effects."

2019 Stanford Causal Workshop, "Testing for peer effects in group-formation experiments."

2019 Google Market Algorithms Worshop, "Minimax designs for assessing long-term causal effects."

2019 UCSB statistics seminar, "Testing for peer-effects in group-formation experiments."

2018 UCLA statistics seminar, "Testing for peer-effects in group-formation experiments."

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

2020 (Spring) Stat 204: Sampling

2019 (Fall) MS&E 327: Topics in Causal Inference

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 quantitive methods for the social sciences

PROFESSIONAL
EXPERIENCE

(May - Aug. 2015) **Google, Inc**, *Google Research (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 at 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: H1B