

Y. Samuel Wang

CONTACT INFORMATION	5807 S Woodlawn Ave Chicago, IL 60637 swang24@uchicago.edu ysamuelwang.com	
ACADEMIC POSITIONS	Principal researcher (post-doc) <i>The University of Chicago; Booth School of Business</i> Supervisor: Mladen Kolar	2018 -
EDUCATION	Ph.D. in Statistics <i>University of Washington</i> Thesis: <i>Linear structural equation models with non-Gaussian errors</i> Advisor: Mathias Drton Committee members: Thomas Richardson and Emily Fox B.A. in Applied Math; Economics <i>Rice University</i> Magna Cum Laude; Phi Beta Kappa	2012 - 2018 2006 - 2010
PUBLICATIONS	<ol style="list-style-type: none">1) Wang, Y. S. and Drton, M. (2020). High-dimensional causal discovery under non-Gaussianity. <i>Biometrika</i>, 107(1):41–592) Zhao, B., Wang, Y. S., and Kolar, M. (2019). Direct estimation of differential functional graphical models. In <i>Advances in Neural Information Processing Systems 32: Annual Conference on Neural Information Processing Systems 2019, NeurIPS 2019, 8-14 December 2019, Vancouver, BC, Canada</i>, pages 2571–25813) Chen, W., Drton, M., and Wang, Y. S. (2019). On causal discovery with an equal-variance assumption. <i>Biometrika</i>, 106(4):973–9804) Drton, M., Fox, C., and Wang, Y. S. (2019). Computation of maximum likelihood estimates in cyclic structural equation models. <i>The Annals of Statistics</i>, 47(2):663–6905) Chen, Y.-C., Wang, Y. S., and Erosheva, E. A. (2018). On the use of bootstrap with variational inference: Theory, interpretation, and a two-sample test example. <i>The Annals of Applied Statistics</i>, 12(2):846–8766) Wang, Y. S., Matsueda, R. L., and Erosheva, E. A. (2017). A variational EM method for mixed membership models with multivariate rank data: An analysis of public policy preferences. <i>The Annals of Applied Statistics</i>, 11(3):1452–14807) Wang, Y. S. and Drton, M. (2017). Empirical likelihood for linear structural equation models with dependent errors. <i>Stat</i>, 6(1):434–447	
SUBMITTED PREPRINTS	<ol style="list-style-type: none">1) Wang, Y. S., Lee, C., West, J., Bergstrom, C., Erosheva, E.A. “Gender-based homophily in collaborations across a heterogeneous scholarly landscape” [arXiv]2) Zhao, B., Wang, Y. S., Kolar, M. “FuDGE: Functional differential graph estimation with fully and discretely observed curves” [arXiv]	

- 3) Wang, Y. S., Drton, M. “Causal discovery with unobserved confounding and non-Gaussian data” [[arXiv](#)]

WORK IN PROGRESS

- “Confidence sets for causal discovery”
with Mathias Drton and Mladen Kolar
- “High-dimensional residual randomization inference”
with Mladen Kolar, Si Kai Lee, and Panos Toulis
- “Posterior summarization for time varying dynamic Bayesian models”
with Mladen Kolar, Si Kai Lee, and David Puelz
- “Estimation of functional graphical models via neighborhood selection”
with Mladen Kolar, Percy Zhai, and Boxin Zhao
- “Non-parametric estimation of the score function”
with Mladen Kolar

TECHNICAL REPORTS AND SOFTWARE

- 1) Wang, Y. S., Erosheva, E. A. (2016) “On the relationship between set-based and network-based measures of gender homophily in scholarly publications” [[arXiv](#)]
- 2) Wang, Y. S., Erosheva, E. A. (2015) “Fitting mixed membership models using *mixedmem*” [[CRAN](#)]

OTHER PUBLICATIONS

- 1) Varshney, A., Wang, Y. S., Watson, R. A., Noll, A., Rossi, J., Shah, P. B., Kaneko, T., Giugliano, R. P., and Adler, D. S. (2018). Abstract 12195: Relationship between transcatheter aortic valve replacement wait time and mortality in patients with symptomatic severe aortic stenosis. *Circulation*, 138(Suppl_1):A12195–A12195

PRESENTATIONS

- 2021**
Colorado State, Statistics
Emory, Quantitative Theory and Methods
University of Southern California, School of Business
Cornell, Statistics and Data Science
University of Waterloo, Statistics and Actuarial Science
University of Toronto, Statistics
Stevens Institute of Technology, School of Business
Temple, School of Business
- 2020**
Texas A&M, Statistics
Shiga University, International Symposium on Data Science Research and Practice
- 2019**
JSM, *Topic contributed org. by Maryclare Griffin and David Matteson*
American Sociological Association Annual Meeting, *Regular session*
- 2018**
JSM, *Topic contributed org. by John Kolassa*
CMSTAT, *Session org. by Marloes Maathuis*

2017JSM, *Contributed talk*

Wisconsin Institute for Discovery at UW-Madison

Toyota Technical Institute - Chicago

2015JSM, *Contributed talk*

TEACHING

Statistics Dept Lead TA, University of Washington

2013, 2016

Lead Instructor:*University of Washington*

STAT 311: Elements of Statistical Methods

Teaching Assistant:*University of Washington*

STAT 220: Principles of Statistical Reasoning

STAT 221: Statistical Concepts for Social Sciences

STAT 311: Elements of Statistical Methods

STAT 421: Applied Statistics and Experimental Design

STAT 534: Statistical Computing

STAT 566: Causal Modeling

STAT 570: Adv Regression Methods for Indep Data

CSSS 589: Multivariate Data Analysis for the Social Sciences

STATISTICAL
CONSULTING**Statistical consultant**, University of Washington

2017 - 2018

*Center for Statistics and the Social Sciences*PROFESSIONAL
SERVICE**Journal Referee:** Annals of Applied Statistics; Annals of Statistics; Bernoulli; Biometrika; Biometrics; Electronic Journal of Statistics, International Journal of Approximate Reasoning; Journal of the American Statistical Association; Journal of Machine Learning Research; Journal of the Royal Statistical Society: Series B**Conference Referee:** AISTATS; ICML; NeurIPS; UAI**Other:** NSF proposal reviewer, JMLR editorial board reviewerNON-ACADEMIC
EXPERIENCE**Susquehanna International Group**

2013

Assistant Trader Intern

- Worked on the index/ETF desk; created tools for calculating “robust” beta and bootstrapping portfolio risk

Deloitte

2010 – 2012

Strategy and Operations Consultant

- Focused on analytic strategy and supply chain risk assessments with heavy manufacturing, technology hardware, and oil and gas clients
- Houston office Business Analyst Action Committee lead

PERSONAL
INTERESTS

Soccer, Cycling, Hiking, Cooking