

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., Wang, Y. S., et al. (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., Erosheva, E. A., et al. (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 Yi Ding, 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

Wang, Y. S., Erosheva, E. A. (2016) “On the relationship between set-based and network-based measures of gender homophily in scholarly publications” [[arXiv](#)]

Wang, Y. S., Erosheva, E. A. (2015) “Fitting mixed membership models using `mixedmem`” [[CRAN](#)]

PRESENTATIONS

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*

2017
JSM, *Contributed talk*
Wisconsin Institute for Discovery at UW-Madison
Toyota Technical Institute - Chicago

2015
JSM, *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, The University of Washington
Center for Statistics and the Social Sciences

2017 - 2018

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
Conference Referee: AISTATS; ICML; NeurIPS; UAI
Other: NSF proposal reviewer, JMLR editorial board reviewer

NON-ACADEMIC
EXPERIENCE

Susquehanna International Group
Assistant Trader Intern

2013

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

Deloitte
Strategy and Operations Consultant

2010 – 2012

- 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