Y. Samuel Wang

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RESEARCH Interests Graphical models; Causal discovery; Mixed membership models; Variational inference;

Empirical likelihood

Academic

Post-doctoral Research Professional

2018 -

Positions

 $The\ University\ of\ Chicago;\ Booth\ School\ of\ Business$

Supervisor: Mladen Kolar

EDUCATION

Ph.D. in Statistics

2012 - 2018

University of Washington

Thesis: Linear Structural Equation Models with non-Gaussian Errors

Advisor: Mathias Drton

Committee members: Thomas Richardson and Emily Fox

B.A. in Applied Math; Economics

2006 - 2010

Rice University

Thesis: State Level Economic Volatility: Causes and Effects

Magna Cum Laude; Phi Beta Kappa

Publications

Wang, Y. S., Drton, M. (2019+) Causal Discovery for High Dimensional DAGs with non-Gaussian Data. Forthcoming in Biometrika

B. Zhao, Y. S. Wang, M. Kolar. Direct Estimation of Differential Functional Graphical Model. NeurIPS.

Chen, W., Drton, M., and Wang, Y. S. (2019). On causal discovery with an equal-variance assumption. *Biometrika*. asz049

Drton, M., Fox, C., Wang, Y. S., et al. (2019). Computation of maximum likelihood estimates in cyclic structural equation models. *The Annals of Statistics*, 47(2):663–690

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. *The Annals of Applied Statistics*, 12(2):846–876

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. *The Annals of Applied Statistics*, 11(3):1452–1480

Wang, Y. S. and Drton, M. (2017). Empirical likelihood for linear structural equation models with dependent errors. *Stat*, 6(1):434–447

SUBMITTED PREPRINTS

Wang, Y. S., Lee, C., West, J., Bergstrom, C., Erosheva, E.A. "Gender-based homophily in collaborations across a heterogeneous scholarly landscape" [arXiv]

TEACHING EXPERIENCE University of Washington

Lead Instructor: STAT 311: Elements of Statistical Methods

Teaching Assistant: 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; CSS 589: Multivariate Data Analysis for the Social Sciences

Professional

UW Statistics Dept Lead TA

2013, 2016

SERVICE

Referee: Annals of Applied Statistics; Biometrika; Biometrics; ICML; Int. J. of Approximate

Reasoning, JMLR, NeurIPS, UAI

INDUSTRY WORK Susquehanna International Group

2013

EXPERIENCE

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

References

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