Yuhao Wang

website https://yuhaow.github.io

APPOINTMENTS

Assistant Professor
Institute of Interdisciplinary Information Sciences, Tsinghua University, Beijing, China   08/2020 - present

Research Affiliate
Shanghai Qi Zhi Institute, Shanghai, China   08/2020 - present

Research Associate
Statistical Laboratory, University of Cambridge, Cambridge, UK   08/2019 - 07/2020
Advisor: Dr. Rajen Shah

EDUCATION

Doctoral of Philosophy
Department of EECS, Massachusetts Institute of Technology, Cambridge, MA, USA   06/2019
Advisor: Professor Caroline Uhler

Master of Science
Department of EECS, Massachusetts Institute of Technology, Cambridge, MA, USA   06/2016
Advisor: Professor Bonnie Berger

Bachelor of Engineering
Department of Automation, Tsinghua University, Beijing, China   07/2014

MAIN RESEARCH INTERESTS

causal inference, *high-dimensional statistics*, *experimental design*.

PUBLICATIONS
(**: equal contribution; *: alphabetical order)

Referred Publications

- L. Solus, **Y. Wang**, C. Uhler. *Consistency guarantees for greedy permutation-based causal inference algorithms*, Biometrika (to appear) preprint arXiv:1702.03530

- **Y. Wang**, S. Segarra, C. Uhler. *High-dimensional joint estimation of multiple directed Gaussian graphical models*, Electronic Journal of Statistics 14.1 (2020): 2439-2483.

- **Y. Wang**, U. Roy, C. Uhler. *Learning High-dimensional Gaussian Graphical Models under Total Positivity without Adjustment of Tuning Parameters*, AISTATS 2020.

- A. Carpentier*, O. Collier*, L. Comminges*, A. B. Tsybakov*, **Y. Wang***. *Minimax rate of testing in sparse linear regression*, Automation and Remote Control 80.10 (2019): 1817-1834. (special issue in memory of Yakov Tsypkin)

- **Y. Wang**, C. Squires, A. Belyaeva, C. Uhler. *Direct estimation of differences in causal graphs*, NeurIPS 2018

- **Y. Wang**, L. Solus, K. D. Yang, C. Uhler. *Permutation-based causal inference algorithms with interventions*, NIPS 2017 (**accepted as spotlight, 4% acceptance**)

- S. Segarra, **Y. Wang**, C. Uhler, Antonio G Marques. *Joint inference of networks from stationary graph signals*, Asilomar Conference on Signals, Systems, and Computers 2017

- Y. Orenstein, **Y. Wang**, B. Berger. *RCK: accurate and efficient inference of sequence and structure-based protein-RNA binding models from RNAcompete data,* ISMB 2016 (**best student paper**)

- H. Xin**, E. Cicek**, **Y. Wang****, M. Schulz, H. Le, Z. Bar-Joseph. *De novo ChIP-seq analysis,* Genome biology 16.1 (2015): 205.

- **Y. Wang**, J. Zeng, *Predicting drug-target interactions using restricted Boltzmann machines,* ISMB 2013; Bioinformatics 29.13 (2013): i126-i134.

Submitted for Review

- **Y. Wang**, R. D. Shah. *Debiased inverse propensity score weighting for estimation of average treatment effects with high-dimensional confounders,* preprint arXiv:2011.08661

- A. Carpentier*, O. Collier*, L. Comminges*, A. B. Tsybakov*, **Y. Wang***. *Estimation of the ℓ_2-norm and testing in sparse linear regression with unknown variance,* preprint arXiv:2010.13679

TEACHING EXPERIENCE

Course Instructor   09/2020 -
30470303-0 Probability and Statisticcs (English), Tsinghua University

Course Instructor   02/2021 -
80470282-0 Advanced Topics in Causal Inference (English), Tsinghua University

Teaching Assistant   09/2016 – 01/2017
6.867 Machine Learning, Massachusetts Institute of Technology

INTERNSHIP EXPERIENCE

Research Intern   06/2018 – 08/2018
Advertisement Science Team, Yahoo! Research. Advisor: Dr. Jimmy Yang

Student Intern   07/2013 – 08/2013
School of Computer Science, Carnegie Mellon University. Advisor: Professor. Ziv Bar-Joseph

CONFERENCES AND INVITED TALKS

Debiased inverse propensity score weighting for estimation of average treatment effects with high-dimensional confounders,

Seminar at Young Data Science Researcher Seminar, ETH Zurich, Zurich, Switzerland (virtual). 06/2021

Seminar at Center for Statistical Science, Tsinghua University, Beijing, China.   03/2021

Hong Kong Machine Learning Meetup, Hong Kong, China (virtual).   02/2021

Seminar at ENSAE-CREST, Paris, France (virtual).   11/2020

Pacific Causal Inference Conference, Peking University, Beijing, China (virtual).   09/2020

Internal meeting of Professor Xiao-Hua Andrew Zhou's group, Peking University, Beijing, China (virtual).   08/2020

Learning high-dimensional Gaussian graphical models under total positivity without tuning parameters,

Machine Learning Theory Workshop, Peking University, Beijing, China.   06/2019

Seminar at Barcelona Graduate School of Economics, Barcelona, Spain.   05/2019

Provable algorithms for statistical challenges in data driven decision making,

Seminar at Krannert School of Management, Purdue University, West Lafayette, IN, USA.   02/2019

Seminar at iDDA, The Chinese University of Hong Kong (Shenzhen), Shenzhen, China.   01/2019

Seminar at IIIS, Tsinghua University, Beijing, China. 12/2018

Direct estimation of differences in causal graphs,
    International Conference of the ERCIM WG on Computational and Methodological Statistics (CM-Statistics), Pisa, Italy. 12/2018

Robust estimation of high-dimensional graphical models under total positivity,
    MIT Applied Algebra Day, Cambridge, MA, USA. 11/2018

Permutation-based causal inference algorithms with interventions,
    NeurIPS spotlight presentation, Long Beach, CA, USA. 12/2017

ACADEMIC SERVICE

Editorial board reviewer
Journal of Machine Learning Research 2020 - present

Senior program comittee
International Joint Conference on Artificial Intelligence (IJCAI) 2021

Reviewer
Annals of Statistics; Biometrics; Biometrika; JMLR; ICML 2018; NeurIPS 2018; ICML 2019; NeurIPS 2019; AAAI 2020; ICLR 2020; STOC 2020; UAI 2020   2018 - present