# Yuhao Wang

website `http://www.mit.edu/~yuhaow/`

## APPOINTMENTS

*Research Associate*
Statistical Laboratory, University of Cambridge, Cambridge, UK  08/2019 - present

## 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*
Tsinghua University, Beijing, China  07/2014

## MAIN RESEARCH INTERESTS

*causal inference, high-dimensional statistics.*

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

### Referred Publications

- **Yuhao Wang**, Uma Roy, Caroline 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

- Liam Solus, **Yuhao Wang**, Lenka Matejovicova, Caroline Uhler. *Consistency guarantees for permutation based causal inference algorithms*, submitted to Biometrika, preprint available at arXiv:1702.03530

- **Yuhao Wang**, Santiago Segarra, Caroline Uhler. *High-dimensional joint estimation of multiple directed Gaussian graphical models,* under major revision at the Electronic Journal of Statistics, preprint available at arXiv:1804.00778

## TEACHING EXPERIENCE

**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

Learning high-dimensional Gaussian graphical models under total positivity without tuning parameters, Machine Learning Theory Workshop, Peking University, Beijing, China.                              06/2019

Learning high-dimensional Gaussian graphical models under total positivity without tuning parameters, Barcelona Graduate School of Economics, Barcelona, Spain.                                            05/2019

Provable algorithms for statistical challenges in data driven decision making, Krannert School of Management, Purdue University, West Lafayette, IN, USA.                                                   02/2019

Provable algorithms for statistical challenges in data driven decision making, The Chinese University of Hong Kong (Shenzhen), Shenzhen, China.                                                            01/2019

Provable Algorithms for Statistical Challenges in Data Driven Decision Making, Tsinghua University, Beijing, China.                                                                                        12/2018

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

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

Direct estimation of differences in causal graphs. MIT-IBM AI Research Week and AI Horizons Colloquium, Cambridge, MA, USA.                                                                                09/2018

Permutation-based causal inference algorithms with interventions. Advances in Neural Information Processing Systems (NIPS), Long Beach, CA, USA (*spotlight* presentation).                                 12/2017

High-dimensional joint estimation of multiple directed Gaussian graphical models. ICMS Workshop Learning Graphical Models in High-Dimensional Settings. Edinburgh, UK.                                      04/2017

## COMMUNITY SERVICE

**Reviewer-Journals:** Biometrics; Biometrika; Journal of Machine Learning Research

**Reviewer-Conferences:** ICML2018; NeurIPS 2018; ICML 2019; NeurIPS 2019; AAAI 2020; ICLR 2020; STOC 2020; UAI 2020