

## Sai Li

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### CONTACT INFORMATION

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### RESEARCH INTERESTS

Estimation and inference in high-dimensional models, transfer and multi-task learning, causal inference with invalid instruments.

### CURRENT APPOINTMENTS

**Postdoctoral researcher, Department of Biostatistics, Epidemiology and In-**  
**formatics** July 2018 to present

Perelman School of Medicine, University of Pennsylvania, PA.

Mentors: Professor Hongzhe Li and Professor T. Tony Cai.

### EDUCATION

**Ph.D., Department of Statistics and Biostatistics**, May 2018.

Rutgers University, New Brunswick, NJ.

Advisors: Professor Cun-Hui Zhang and Professor Steven Buyske.

**Bachelor of Economics, School of Statistics**, June 2013.

Renmin University of China, Beijing, China.

Exchange student, Department of Statistics and Actuarial Science, Spring 2011.

University of Hong Kong, Hong Kong.

### PAPERS

- [1] Sai Li. [Debiasing the debiased Lasso with bootstrap](#). *Electronic Journal of Statistics*, 14(1): 2298-2337, 2020. arXiv:1711.03613.
- [2] Sai Li, T. Tony Cai, and Hongzhe Li. [Inference for high-dimensional linear mixed-effects models: A quasi-likelihood approach](#). *JASA (re-submitted after major revision)*. 2019. arXiv:1907.06116.
- [3] Sai Li, T. Tony Cai, and Hongzhe Li. [Transfer learning for high-dimensional linear regression: Prediction, estimation, and minimax optimality](#). *Submitted to JRSSB*, 2020. arXiv:2006.10593.
- [4] Sai Li, T. Tony Cai, and Hongzhe Li. Transfer learning in large-scale graphical models with false discovery rate control. *Submitted to JASA*. 2020.

- [5] Sai Li and Zijian Guo. [Causal inference for nonlinear outcome models with possibly invalid instrumental variables](#). *Submitted to JASA*. 2020. arXiv:2010.09922.
- [6] Sai Li. [Mendelian Randomization when many instruments are invalid: hierarchical empirical Bayes estimation](#). Technical report. *arXiv:1706.01389*. June 2017.
- [7] Sai Li, Ritwik Mitra, and Cun-Hui Zhang. [Comment: An adaptive resampling test for detecting the presence of significant predictors](#). *Journal of the American Statistical Association*. 110(512): 1455-1456. 2016.

CONFERENCE  
TALKS AND  
SERVICE

- [1] Concurrent session, Women in Statistics and Data Science 2020, online, “Transfer learning in high-dimensional sparse regression”, 10/2020.
- [2] Session Chair, Modern Statistical Learning Methods, JSM 2020.
- [3] Contributed talks, JSM 2019 and JSM 2020.
- [4] Invited talk, CMStatistics 2018, Pisa, Italy, “Debiasing the debiased Lasso with bootstrap”, 12/2018.
- [5] Poster presentation, Mendelian randomization in the age of large-scale accessible genomics data, Bristol, UK, “Mendelian Randomization when many instruments are invalid: hierarchical empirical Bayes estimation”, 07/2017.
- [6] Student paper competition, WNAR conference, Santa Fe, “Mendelian Randomization when many instruments are invalid: hierarchical empirical Bayes estimation”, 06/17.

TEACHING  
EXPERIENCE

*Instructor (sole responsibility)*

- STAT285: Introductory Statistics for Business **Summer 2016**

*Teaching Assistant*

- STAT588: Financial Data Mining **Fall 2015**
- STAT535: Advanced Statistical Methods in Finance **Spring 2015**
- STAT401: Basic Statistics for Research **Fall 2014**
- STAT379: Basic Probability & Statistics **Fall 2014**

AWARDS

- Travel Award, Conference on [Mendelian randomization in the age of large-scale accessible genomics data](#), 07/17.
- Student Distinguished Written Paper Award, [WNAR conference](#), 06/17.
- TA/GA Professional Development Fund, 06/15, 06/16.
- Certificate of Excellence for attending 3rd Annual Interdisciplinary Quantitative Biology Boot Camp-drug discovery and development, 01/16.

## REFERENCES

### **Dr. Hongzhe Li**

- Perelman Professor in Biostatistics, Epidemiology, and Informatics, Department of Biostatistics and Epidemiology, University of Pennsylvania.
- ◇ e-mail: hongzhe@upenn.edu; phone: (215) 573-5038.

### **Dr. T. Tony Cai**

- Daniel H. Silberberg Professor, Department of Statistics, the Wharton School, University of Pennsylvania.
- ◇ e-mail: tcai@wharton.upenn.edu; phone: (215) 898-8224.

### **Dr. Cun-Hui Zhang**

- Distinguished Professor, Department of Statistics and Biostatistics, Rutgers University.
- ◇ e-mail: czhang@stat.rutgers.edu; phone: (848) 445-7685.

### **Dr. Steven Buyske**

- Associate Professor, Department of Statistics and Biostatistics, Rutgers University.
- ◇ e-mail: buyske@stat.rutgers.edu; phone: (848) 445-7680.