Sai Li

CONTACT INFORMATION

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RESEARCH INTERESTS

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

CURRENT APPOINTMENTS

Postdoctoral researcher, Department of Biostatistics, Epidemiology and Informatics 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.

PAPERS

[1] Sai Li. Debiasing the debiased Lasso with bootstrap. *Electronic Journal of Statistics*, 14(1): 2298-2337, 2020.

[2] Sai Li, T. Tony Cai, and Hongzhe Li. Inference for high-dimensional linear mixed-effects models: A quasi-likelihood approach. *Journal of the American Statistical Association (accepted)*.

[3] Sai Li, T. Tony Cai, and Hongzhe Li. Transfer learning for high-dimensional linear regression: Prediction, estimation, and minimax optimality. *JRSSB (re-submitted after revision)*, 2020. arXiv:2006.10593.

[4] Sai Li and Zijian Guo. Causal inference for nonlinear outcome models with possibly invalid instrumental variables. *Journal of the American Statistical Association (major revision)*. 2020. arXiv:2010.09922.

[5] Sai Li, T. Tony Cai, and Hongzhe Li. Transfer learning in large-scale graphical models with false discovery rate control. *Submitted to Journal of the American Statistical Association*. 2020. arXiv:2010.11037.

[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.