Han Yan

Email: hanyan@stu.pku.edu.cn

Homepage: hanyan-stat.github.io

EDUCATION

Peking University *Sep. 2020 - Present*
Ph.D candidate in Statistics
Advisor: Prof. Song Xi Chen

Sichuan University *Sep. 2016 - Jun. 2020*
B.S. in Mathematics

RESEARCH INTERESTS

- Statistical and machine learning theory

- Segmented and threshold regression

- Semiparametric and nonparametric estimation

- Transfer learning and causal inference

SELECTED AWARDS

- Outstanding Academic Scholarship, Peking University   2022,2023

- Presidential Scholarship, Peking University   2021

- National Scholarship, Peking University and Sichuan University   2021, 2019, 2018

PAPER

Publications

1. **Statistical Inference for Four-Regime Segmented Regression Models** [pdf][supplement]
   Han Yan and Song Xi Chen
   The Annals of Statistics, to appear.

2. **FAST: a Fused and Accurate Shrinkage Tree for Heterogeneous Treatment Effects Estimation** [pdf]
   Jia Gu, Caizhi Tang, **Han Yan**, Qing Cui, Longfei Li and Jun Zhou
   Neural Information Processing Systems (NeurIPS) 2023.

3. **Better Strategies for Containing COVID-19 Pandemic: A Study of 25 Countries via a vSIADR Model** [pdf]
   Han Yan, Yuru Zhu, Jia Gu, Yaxuan Huang, Haoxuan Sun, Xinyu Zhang, Yuqing Wang, Yumou Qiu and Song Xi Chen
   Proceedings of the Royal Society A 477.2248 (2021): 20200440.

4. **Containment Measures among Nations by Epidemiological Effects of COVID-19** [pdf]
   Jia Gu, **Han Yan**, Yaxuan Huang, Yuru Zhu, Haoxuan Sun, Yumou Qiu, Song Xi Chen
   National Science Review 7.12 (2020): 1847-1851.

5. **Tracking Reproductivity of COVID-19 Epidemic in China with Varying Coefficient SIR Model (with discussion)** [pdf]
Haoxuan Sun, Yumou Qiu, **Han Yan**, Yaxuan Huang, Yuru Zhu, Jia Gu and Song Xi Chen
Journal of Data Science 18.3 (2020): 455-472.

Manuscripts

1. **Transfer Learning with General Estimating Equations** [pdf][supplement]
Han Yan and Song Xi Chen
Under review at the Annals of Statistics.

2. **Local estimation by fused machine learning with in-situ calibration**
Han Yan, Yumou Qiu and Song Xi Chen
Working paper.

TALKS

- *Statistical Inference for Segmented Regression Models*
  - April 2023, The 12th National Probability and Statistics Conference of China.
  - August 2023, Hangzhou International Conference on Frontiers of Data Science.
- *Transfer Learning with General Estimating Equations*
  - June 2024, IMS-China International Conference on Statistics and Probability
  - July 2024, the 2nd Joint Conference on Statistics and Data Science in China (JCSDS).

TEACHING ASSISTENT

- Large Sample Theory   Fall 2023
  Postgraduate and undergraduate course by Prof. Song Xi Chen
- Advanced Multivariate Statistical Analysis   Fall 2022
  Postgraduate and undergraduate course by Prof. Song Xi Chen
- Probability and Statistics   Spring 2022, 2021
  Undergraduate course by Prof. Minya Xu

RELEVANT SKILLS

- **Programming:** Proficient in R and Python
- **Languages:** English (fluent), Chinese (native)