

Han Yan

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EDUCATION

Peking University

Ph.D candidate in Statistics

Advisor: Prof. Song Xi Chen

Sep. 2020 - Present

Sichuan University

B.S. in Mathematics

Sep. 2016 - Jun. 2020

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. **Comparing 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)