### **Contact:**

Department of Mathematics Website: https://hongjianshi.github.io

Technical University of Munich Email: hongjian.shi@tum.de Boltzmannstr. 3 Phone: +49 (89) 289 - 17427

85748 Garching b. München, Germany

## **Employment:**

2021–2023 Department of Mathematics, Technical University of Munich Postdoc

#### **Education:**

2016 – 2021	Department of Statistics, University of Washington	Ph.D. in Statistics
2014 – 2016	Indiana University Bloomington	B.S. in Statistics
2010-2014	Peking University	B.S. in Mathematics

#### **Publications:**

6 Center-outward sign- and rank-based quadrant, Spearman, and Kendall tests for multivariate independence (with Mathias Drton, Marc Hallin, Fang Han). ArXiv e-prints, (2021), arXiv:2111.15567.

- 5 On Azadkia-Chatterjee's conditional dependence coefficient (with Mathias Drton, Fang Han). Bernoulli, (2023+), (in press).
- 4 On the power of Chatterjee's rank correlation (with Mathias Drton, Fang Han). *Biometrika*, **109**, no. 2, (2022): 317–333.
- 3 On universally consistent and fully distribution-free rank tests of vector independence (with Marc Hallin, Mathias Drton, Fang Han). The Annals of Statistics, **50**, no. 4, (2022): 1933–1959.
- 2 Distribution-free consistent independence tests via center-outward ranks and signs (with Mathias Drton, Fang Han). *Journal of the American Statistical Association*, **117**, no. 537, (2022): 395–410.
- 1 High dimensional independence testing with maxima of rank correlations (with Mathias Drton, Fang Han). The Annals of Statistics, 48, no. 6, (2020): 3206–3227.

#### Talks:

- "On universally consistent and fully distribution-free rank tests of vector independence", Statistical Optimal Transport (Invited Session), 15th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2022), London, United Kingdom, 17–19 December 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", 2022 IMS International Conference on Statistics and Data Science (ICSDS), Florence, Italy, 13–16 December 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", ETH-UCPH-TUM Workshop on Graphical Models, Burghausen, Germany, 10–14 October 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", Optimal Transport, Statistics, Machine Learning and moving in between (YES workshop 2022), Eindhoven, Netherlands, 5–9 September 2022

- "On universally consistent and fully distribution-free rank tests of vector independence", Recent Advances in Rank-Based Inference (Invited Session), JSM 2022, Washington DC, United States, 6–11 August 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", Invited Talk, Ruhr University Bochum, Bochum, Germany, 26 July 2022
- "Distribution-free consistent tests of independence via center-outward multivariate ranks", Recent Advances in Nonparametric and HighDimensional Hypothesis Testing (Invited Session), International Chinese Statistical Association (ICSA) China Conference, Xi'an, China (Hybrid), 1–4 July 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", Recent Advances in Rank-based Inference (Topic Contributed Session), 2022 IMS Annual Meeting, London, United Kingdom, 27–30 June 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", Multivariate Analysis of Complex Data (MACD) Workshop, Brussels, Belgium, 23–24 May 2022
- "Center-Outward Sign- and Rank-Based Quadrant, Spearman, and Kendall Tests for Multivariate Independence", International Workshop on Optimal Transport and Structured Data Modeling (OT-SDM), Vancouver (Virtually), 28 February 2022
- "On universally consistent and fully distribution-free rank tests of vector independence", Seminar on Statistics and Data Science, Technical University of Munich, Garching bei München, Germany, 22 September 2021
- "Distribution-free consistent tests of independence via marginal and multivariate ranks", International Chinese Statistical Association (ICSA) China Conference, Xi'an, China, July 2021 (Cancelled due to COVID-19)

# Teaching:

2021	University of Washington	STAT390: Statistical Methods in Engineering and Science (TA)
2021	University of Washington	STAT498: Introduction to Stochastic Processes II (TA)
2020	University of Washington	STAT491: Introduction to Stochastic Processes (TA)
2020	University of Washington	STAT390: Statistical Methods in Engineering and Science (TA)
2020	University of Washington	STAT435: Introduction to Statistical Machine Learning (TA)
2019	University of Washington	STAT570: Advanced Regression Methods for Independent Data (TA)
2019	University of Washington	STAT311: Elements of Statistical Methods (TA)
2019	University of Washington	STAT571: Advanced Regression Methods for Dependent Data (TA)
2018	University of Washington	STAT491: Introduction to Stochastic Processes (TA)
2018	University of Washington	STAT390: Statistical Methods in Engineering and Science (TA)
2017	University of Washington	STAT390: Statistical Methods in Engineering and Science (TA)
2016	University of Washington	STAT390: Statistical Methods in Engineering and Science (TA)

## **Professional Service:**

Journal Referee: Journal of the American Statistical Association (JASA), Journal of the Royal Statistical Society: Series B (JRSSB), Biometrika, Bernoulli, Annals of Applied Probability (AAP), Electronic Journal of Statistics (EJS), Journal of Machine Learning Research (JMLR), Journal of Multivariate Analysis (JMA), Scandinavian Journal of Statistics (SJS), TEST (SEIO)