Xingchao Jian

Singapore — xingchao001@e.ntu.edu.sg

Education

Nankai University, Tianjin, China — Sep. 2016 - Jun. 2020
B.S. in Statistics — School of Mathematical Sciences

Nanyang Technological University, Singapore — Aug. 2020 -
Ph.D. candidate — School of Electrical and Electronic Engineering
Supervisor: Prof. Wee Peng Tay (wptay@ntu.edu.sg)

Other Experiences

UC Berkeley, California, US — Aug. 2018 - Dec. 2018
Exchange Student

Hong Kong University of Science and Technology, Hong Kong SAR — Jul. 2019 - Aug. 2019
Summer Research Internship — Department of Mathematics
Topic: stochastic graph models, network detection algorithms.

Publications

Submitted/Undereview papers

1. F. Ji, **X. Jian**, W. P. Tay and M. Yang "Topological Signal Processing over Simplicial Complexes with Abelian Groups", submitted to *IEEE Transactions on Signal Processing*, under review.
2. **X. Jian**, F. Ji and W. P. Tay, "Comments on "Graphon Signal Processing"," submitted to *IEEE Transactions on Signal Processing*, under review.
3. **X. Jian**, W. P. Tay and Y. C. Eldar, "Kernel Based Reconstruction for Generalized Graph Signal Processing," submitted to *IEEE Transactions on Signal Processing*, under review.

Published/Accepted journal papers

1. **X. Jian** and W. P. Tay, "Wide-Sense Stationarity in Generalized Graph Signal Processing," in *IEEE Transactions on Signal Processing*, vol. 70, pp. 3414-3428, 2022.

Refereed conference Proceedings

1. **X. Jian** and W. P. Tay, "Kernel Ridge Regression for Generalized Graph Signal Processing," in *Proc. IEEE International Conference Acoustics, Speech, and Signal Processing*, Rhodes Island, Greece, 2023.
2. **X. Jian** and W. P. Tay, "Wide-Sense Stationarity and Spectral Estimation for Generalized Graph Signal," in *Proc. IEEE International Conference Acoustics, Speech, and Signal Processing*, Singapore, May. 2022.

Books and Chapters

1. **X. Jian**, F. Ji and W. P. Tay (2023), "Generalizing Graph Signal Processing: High Dimensional Spaces, Models and Structures", *Foundations and Trends® in Signal Processing*: Vol. 17: No. 3, pp 209-290.

Teaching

Teaching Assistant

- IE3002 (Microprocessor): NTU, 2022-2023 Sem 1
- IE2010/2110 (Signals and Systems): NTU, 2022-2023 Sem 1, 2; 2023-2024 Sem 1
- IE0005 (Introduction to Data Science and Artificial Intelligence): NTU, 2022-2023 Sem 2

Skills

- **Programming:** R, MATLAB, Python.
- **Communication:** Mandarin, English.