Wenwu GONG *PhD Candidate*

RESEARCH KEYWORDS	❏ **Tucker-based Low-rank Model**	❏ **Tensor Learning**
	❏ Signal Processing	❏ Image Processing
	❏ **Optimization**	❏ **Deep Tensor Computation**

CONTACT INFORMATION

✉ 12031299@mail.sustech.edu.cn — SUSTech
🏠 https://gongwenwuu.github.io/ — HomePage
⦿ github.com/GongWenwuu
G Google Scholar

BIOGRAPHY

I plan to do a visiting postgraduate internship (MATH) at HKUST in Oct. 2023. In the Summer of 2024, I will finish my Ph.D. from Southern University of Science and Technology (SUSTech), where my research focuses on **Tensor Learning** and **Algorithms and Mathematical Theory for Data Science**.

EDUCATION

🏛 **Southern University of Science and Technology** — Shenzhen
🎓 *Ph.D. in Mathematics* — Sep. 2020 - Present.
- **Affiliation**: Department of Statistics and Data Science
- **Thesis**: Low-Rank Tensor Learning: Methods, Algorithms, and Applications

🏛 **Harbin Institute of Technology** — Shenzhen
🎓 *Master of Science in Mathematics* — Sep. 2018 - Sep. 2020
Affiliation: Probability and Statistics in *School of Mathematics*

🏛 **Nanchang University** — Nanchang
🎓 *Bachelor of Science in Mathematics* — Sep. 2014 - May. 2018
Affiliation: *Applied Mathematics* in *School of Mathematics and Computer Sciences*

HONOURS AND AWARDS

⚕ National Scholarships		Oct. 2023
⚕ International Training Program of Guangdong Province		June 2023
Innovative Practice Scholarship	RMB 10,000	May 2021
National Postgraduate Statistical Modeling Competition	Second Prize	Dec. 2020

PROJECTS

Granted Research Funding:
- Impact of different control policies for COVID-19 outbreak on the tertiary sector

  - **Main contributors**: Wenwu Gong (principal investigator), Lili Yang (supervisor)
  - **Funding**: Innovation and Entrepreneurship Fund for Graduate Students by the Graduate School of SUSTech (Y01621803)   RMB 82,000

Open-source Research Projects:
- ⦿ LRTL Methods and Their Applications: The collection of state-of-the-art papers focus on low-rank tensor learning and its applications, including imaging and traffic data.

TUTORIALS ⦿ **TA**

• Probability Theory and Mathematical Statistics	Sep. 2019 - May 2021
• Tensor Decomposition and Its Applications	Mar. 2023 - June 2023

Preprints & Under Review

2. Wenwu Gong, Zhejun Huang, Lili Yang (2023). **ELST: A Tucker-based prior modeling framework for tensor completion**.
   Under review

1. Wenwu Gong, Zhejun Huang, Lili Yang (2023). **Spatiotemporal regularized Tucker decomposition approach for traffic data imputation**.
   arXiv:2305.06563

Journal Papers

1. Wenwu Gong, Zhejun Huang, Lili Yang (2023). **Accurate regularized Tucker decomposition for image restoration**. *Applied Mathematical Modeling*. 123 (11): 75-86.
   JCR-Q1   **IF: 5**   🏅 Top-tier   https://doi.org/10.1016/j.apm.2023.06.031

Conference Papers

2. **ICASSP 2024**: Wenwu Gong, Zhejun Huang, Lili Yang (2024). **Enhanced low-rank and sparse Tucker decomposition for image completion**. *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, Seoul, Korea, 2024.
   EI   **CCF B**

1. **ITSC 2023**: Wenwu Gong, Zhejun Huang, Lili Yang (2023). **LSPTD: Low-rank and spatiotemporal priors enhanced Tucker decomposition for internet traffic data imputation** (presentation only). *Proceedings of the IEEE Conference on Intelligent Transportation Systems*, Bilbao, Spain, 2023.
   EI   **Level A**

Other Papers

2. Wenwu Gong, Jie Jiang, and Lili Yang. (2022). **Dynamic risk assessment of compound hazards based on VFS-IEM-IDM: A case study of Typhoon-Rainstorm hazards in Shenzhen, China**. *Natural Hazards and Earth System Sciences*. 22(10): 3271-3283.
   JCR-Q1   **IF: 4.6**   https://doi.org/10.5194/nhess-22-3271-2022

1. Fanyu Meng, Wenwu Gong, Jun Liang, Xian Li, Yiping Zeng and Lili Yang. (2021). **Impact of different control policies for COVID-19 outbreak on the air transportation industry: A comparison between China, the U.S. and Singapore**. *PLoS One*. 16(3): e0248361.
   JCR-Q2   **IF: 3.7**   https://doi.org/10.1371/journal.pone.0248361