**Gong Wenwu**

[Google Scholar](https://scholar.google.com/citations?user=8igSoWgAAAAJ) | [HomePage](https://gongwenwuu.github.io/)

**RESEARCH INTERESTS**

**Tucker-based Low-rank Model, Machine Learning, Scientific Computing**

Spatial-temporal Data Modeling, Image Processing

**BIOGRAPH**

I am planning to do a visiting postgraduate internship (MATH) at HKUST in Oct. 2023. In Summer 2024, I will finish my PhD from Southern University of Science and Technology (SUSTech), where my research focuses on tensor learning, spatiotemporal data modeling, and image inpainting.

**EDUCATION**

**Southern University of Science and Technology: PhD** in Department of Statistics and Data Science, *Mathematics*

Thesis: Tucker-based Low Rank Tensor Learning Methods, Algorithms and Applications

**Harbin Institute of Technology : Master** in School of Mathematics, *Probability and Statistics*

**NanChang University: Bachelor** in School of Mathematics and Computer Sciences, *Applied Mathematics*

# RESEARCH EXPERIENCE

## Sep 2020 - Present

**Sep 2018 - Jul 2020**

**Sep 2014 - Jul 2018**

**COVID-19 Intervention Analysis (2020-2021), Innovative practice project in SUSTech [Principal Investigator]**

Meng F, **Gong W**, Liang J, Li X, Zeng Y, Yang L. (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. **Invited Talk**

## Dynamic Risk Assessment of Compound Hazards (MSc: 2018-2020), National Natural Science Foundation of China [Participants]

**Gong, W.**, Jiang, J., and Yang, L. (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.

Huggins, T.J.; E, F.; Chen, K.; **Gong, W.**; Yang, L. (2020) Infrastructural Aspects of Rain-Related Cascading Disasters: A Systematic Literature Review.

International Journal of Environmental Research and Public Health.

**Gong, W.**, Chen, K., Huggins, T. and Yang, L. (2020) Risk Evaluation Based on Variable Fuzzy Sets and Information Diffusion Method. Journal of Applied Mathematics and Physics. **Invited Talk**

# HONORS & AWARDS

Dec 2020: National Postgraduate Statistical Modeling Competition (second prize)

Sep 2014 - Jul 2018: First-class and second-class scholarship of NanChang university, third prize in mathematics contest, third prize in modeling contest

# PUBLICATIONS (Ph.D.: 2020-2024)

## Journal Papers

1. **Wenwu Gong**, Zhejun Huang, Lili Yang (2023): Accurate Regularized Tucker Decomposition for Image Restoration. Applied Mathematical Modeling.

## Preprint and Submitted Papers

3. Manifold Regularized Tucker Decomposition Approach for Spatiotemporal Traffic Data Imputation. ArXiv 2023.

2. LSPTD: Low-rank and spatiotemporal priors enhanced Tucker decomposition for internet traffic data imputation, ITSC

1. 2023. Enhanced low-rank and sparse Tucker decomposition for image inpainting. BMVC 2023.

# Others

**Expertise:** Python/Matlab/R*/*HTML **Language:** Chinese (native) & English **Hobbies:** Football & Tennis