

Gong Wenwu

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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, <i>Mathematics</i>	Sep 2020 - Present
Thesis: Tucker-based Low Rank Tensor Learning Methods, Algorithms and Applications	
Harbin Institute of Technology : Master in School of Mathematics, <i>Probability and Statistics</i>	Sep 2018 - Jul 2020
NanChang University: Bachelor in School of Mathematics and Computer Sciences, <i>Applied Mathematics</i>	Sep 2014 - Jul 2018

RESEARCH EXPERIENCE

- **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

- Sep 2020 - Jul 2021: 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