Wenwu GONG

Research Keywords	 Tucker-based Low-rank Model Scientific Computing 	High-dimensional Time SeriesNonconvex Optimization
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Biography	I am currently a Postdoctoral at Southern University of Science and Technology (SUSTech), where my research focuses on Inexact Nonconvex Optimization and Mathematical Theory for Data Science . Fortunately, I have been sponsored by the SUSTech Presidential Postdoctoral Fellowship .	
Education	 	Shenzhen Sep. 2020 - June 2024. based on Tucker Decomposition and Their
	 	Shenzhen Sep. 2018 - June. 2020 ematics
	 	Nanchang Sep. 2014 - May. 2018 ics and Computer Sciences
Honours and Awards	 Nomination for Top Ten Graduate Students Outstanding Graduate Student National Scholarships International Training Program of Guangdong Province Innovative Practice Scholarship National Postgraduate Statistical Modeling Competities 	May 2024 Dec. 2023 Oct. 2023 HKUST (P.G.) June 2023 RMB 10,000 May 2021 on Second Prize Dec. 2020
Projects	 Granted Research Funding: Impact of different control policies for COVID-19 outbreak on the tertiary sector Leadership, principal investigator Funding: Innovation and Entrepreneurship Fund for Graduate Students by the Graduate School of SUSTech (Y01621803) RMB 82,000 	
	 Open-source Research Projects: O LRTL Methods and Their Applications: The colle low-rank tensor learning and its applications, including 	ction of state-of-the-art papers focus on imaging and traffic data.
TUTORIALS () TA	Probability Theory and Mathematical StatisticsTensor Decomposition and Its Applications	Sep. 2019 - May 2021 Mar. 2023 - June 2023

PUBLICATIONS Preprints & Under Review

G Scholar

- 3. Wenwu Gong and Lili Yang (2024). Fused Tucker decomposition with tensor gradient for low-rank tensor completion. Manuscript
- 2. Wenwu Gong and Lili Yang (2024). 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

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

Conference Papers

- 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, 2425-2429.
 EI CCF B https://doi.org/10.1109/ICASSP48485.2024.10448445
- 1. ITSC 2023: Wenwu Gong, Zhejun Huang, Lili Yang (2023). LSPTD: Low-rank and spatiotemporal priors enhanced Tucker decomposition for internet traffic data imputation. Proceedings of the IEEE Conference on Intelligent Transportation Systems, Bilbao, Spain, 2023, 460-465.

EI CCF B1 https://doi.org/10.1109/ITSC57777.2023.10422071

Co-author

- 3. ICAC 2024 Jiaxin Lu, Wenwu Gong, Lili Yang (2024). Low-Rank autoregressive Tucker decomposition for traffic data imputation. International Conference on Automation and Computing, Sunderland, UK, 2024.
 EI https://doi.org/10.1109/ICAC61394.2024.10718844
- 2. ICIC 2024: Rongping Huang, Wenwu Gong, Jiaxin Lu, and Lili Yang. (2024). BACP: Bayesian augmented CP factorization for traffic data imputation. International Conference On Intelligent Computing, Tianjin, China, 2024.
 EI CCF C https://doi.org/10.1007/978-981-97-5618-6-10
 - **EI COF C** https://doi.org/10.1007/978-981-97-5018-0-10
- 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