

CUI Ziyu



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Academic Qualification

2023–2026	Ph.D.: The Hong Kong Polytechnic University; Industrial and Systems Engineering
2020–2023	M.Eng.: Harbin Institute of Technology; Transportation Planning and Management
2016–2020	B.Eng.: Shandong Jianzhu University; Transportation Engineering

Working Experience

2026–Present	Assistant Professor / Macau University of Science and Technology
2026	Postdoctoral Fellow / The Hong Kong Polytechnic University
2025–2026	Guest Researcher / Delft University of Technology
2024	Visiting Researcher / University of Nottingham Ningbo China

Teaching Activities

Smart Logistics Systems and Applications (Course code: BBAE16504)

Research Areas

Intelligent Transportation Systems Modeling; Supply Chain Logistics and Management; Big Data and Artificial Intelligence; Transportation Policy Analysis.

Selected Publications

1. Dong, H., **Cui, Z.**, Wang, X., Yang, M., Zhu, J.*, Yang, H.*, Chung, C.-Y., Zhang, H., Liu, D., & Fu, X. (2026). A Data-Driven Framework for Forecasting

the Spatial-Temporal Distribution of Energy-Use Flows in Air Transportation. *Cell Reports Physical Science* (SCI, JCR Q1, IF=7.3), 7(6), 103339.

2. Peng, W., Wang, Z., **Cui, Z.***, Wang, K., & Fu, X. (2026). Identifying, Evaluating, and Assessing the Impact of Airport Hubs: A Systematic Review of Quantitative Indicators and Methods. *Research in Transportation Business & Management* (SSCI, JCR Q2, IF =4.8), 68, 101806.
3. Dong H., **Cui Z.**, Zhu J.*, Fu, X.*, Chung, C-Y (2026). Forecasting Energy Use Flows of Air Routes Under Aviation Electrification. *The Innovation Energy*, 3:100161.
4. Dong, H., **Cui, Z. (Co-first authors)**, Chung, C.-Y., Chen, Y., Zhu, J., Fu, X., & Yang, H. (2026). Evaluating Flight-Aware Charging for Electric Aircraft Under Airport-Specific Pricing. *Transport Policy* (SSCI, JCR Q1, ABDC A, IF=5.3), 186, 104229.
5. **Cui, Z.**, Fu, X., Jin, H.*, Chen, A., Wang, K (2025). Transitioning to Electrification: Optimal Strategies for Ship Fleet Replacement. *Transportation Research Part C: Emerging Technologies* (SCI, JCR Q1, ABDC A*, IF=7.9), Volume 174, 105079.
6. **Cui, Z.**, Fu, X., Wu, X., Wang, K.* (2025). Optimal Subsidy Scheme for Electric Ship Adoption in Inland Shipping. *Transportation Research Part A: Policy and Practice* (SSCI, JCR Q1, ABDC A*, IF=6.8), Volume 199, 2025, 104591.
7. **Cui, Z.**, Dong, H., Wang, K., Qiu, J., Fu, X.* (2025). Analysis of Structure Evolution in Chinese Aviation Networks During and After the Pandemic: A Machine Learning-based approach. *Transport Policy* (SSCI, JCR Q1, ABDC A, IF=5.3), Volume 172, 2025, 103774.
8. Dong, H., Wang, X., **Cui, Z. (Co-first authors)**, Zhu, J.*, Li, S., Yu, C. (2025). Machine Learning-Enhanced Data Envelopment Analysis Via Multi-Objective Variable Selection for Benchmarking Combined Electricity Distribution Performance. *Energy Economics* (SCI, JCR Q1, ABDC A*, IF=14.2), Volume 143, 2025, 108226.
9. **Cui, Z.**, Wang, X., Ci, Y.*, Yang, C., Yao, J. (2023). Modeling and Analysis of Car-Following Models Incorporating Multiple Lead Vehicles and Acceleration Information in Heterogeneous Traffic Flow. *Physica A: Statistical Mechanics and its Applications* (SCI, JCR Q2, IF=3.1), 129259.
10. Wang, X.*, **Cui, Z.**, Zhang, Y (2022). Decision Making of Opening Gated Community Considering Traffic Impact on Environment. *Journal of Transportation Systems Engineering and Information Technology* (CSCD, EI), 22(04): 228-235.

Conference papers

1. He, S., Tian, J.*, **Cui, Z.**, Hao, G., Liang, Z., Cao, Y., & Chung, C. Y. (2026). Distribution Power Network Reconfiguration with Queued EV Support: Deep Reinforcement Learning for V2G Scheduling under Uncertainty. *2026 IEEE PES International Meeting (PES IM)*. IEEE.
2. Zhao, C., **Cui, Z.**, Yip, T. L.*, Fu, X. (2025). A Multi-Objective Framework for Green Energy Selection and Navigation in Maritime Transportation. *The 8th International Conference on Transportation Information and Safety (IEEE)*, 764-771.

Patent

1. **Cui, Z.**, Wang, X., et al. (2023) A Modeling Approach to Follow-Along Model Considering the Influence of Multiple Vehicles Ahead and Acceleration Information [P]. CN 117079464 B.

Other Professional Activities

Reviewer Committee Members

Transportation Research Part A: Policy and Practice

Transport Policy

Ocean & Coastal Management

Research in Transportation Business & Management

Case Studies on Transport Policy

International Conference Assistant

2025 The 28th Air Transport Research Society

2025 Advances in Future Mobility: An International Workshop

2024 The 28th International Conference of HKSTS

2023 International Workshop on Frontier Transport Research Topics

Honors/Awards

2026 Reaching Out Award of the HKSAR. Government Scholarship Fund

2023, 2024 Outstanding Teaching Assistant Award of ISE, POLYU

2023 Outstanding Graduate of Heilongjiang Province

2023 Outstanding Thesis of Harbin Institute of Technology

2022 China National Scholarship for Postgraduates

2020 Outstanding Graduate of Shandong Province