

Rusi Wang

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RESEARCH INTERESTS

Transportation network modeling and optimization; multi-commodity flow; dynamic traffic assignment; multimodal transportation; travel demand management; congestion pricing.

EDUCATION

Tongji University Ph.D. in Urban Mobility Shanghai, China; College of Transportation; advisor: Prof. Chi Xie	Sep 2024–present
Tongji University M.Sc.(Eng.) in Vehicle Operation Engineering Shanghai, China; Institute of Rail Transit	Sep 2021–May 2024
University of Electronic Science and Technology of China B.Eng. in Internet of Things Engineering Chengdu, China; School of Information and Communication Engineering	Sep 2017–Jul 2021
Institut Supérieur d'Électronique de Paris Visiting Undergraduate Student Awarded by China Scholarship Council (CSC) Paris, France	Sep 2019–Feb 2020
National University of Kaohsiung Exchange Student Kaohsiung, Taiwan, China; Department of Electrical Engineering	Feb 2019–Jun 2019

SELECTED PUBLICATIONS

Journal articles

1. Chi Xie, **Rusi Wang**, Dianlei Wang, Bo Zou, Xiaowen Fu, Xiqun Chen, and Qing-Chang Lu. Incorporating revenue loss and congestion cost into rail freight subsidy design: Lessons learned from the China-Europe freight transportation network. *Transport Policy*, 174:103819, 2025. [DOI]

Conference papers

1. **Rusi Wang** and Chi Xie. A convex programming model for dynamic ridesharing user equilibrium. Accepted for presentation at the *106th Annual Meeting of the Transportation Research Board*, Washington, D.C., 10–14 January 2027. Paper No. TRBAM-27-06071.
2. **Rusi Wang**, Chi Xie, Bo Zou, and Xiaowen Fu. Mitigating revenue loss and congestion surcharge by rail freight subsidy in a multimodal multicommodity freight transportation market. *105th Annual Meeting of the Transportation Research Board*, Washington, D.C., 11–15 January 2026. Paper No. TRBAM-26-04956. [Link]

Earlier publications are listed on my personal homepage.

WORKING PAPERS

- **Rusi Wang** and Chi Xie. A Nesterov-style convex programming model for dynamic user equilibrium with maximum entropy selection. *Working paper; planned journal submission*.
- **Rusi Wang** and Chi Xie. A convex programming model for dynamic user equilibrium based on Nesterov's network equilibrium model. *Working paper; planned conference submission*.

WORK IN PROGRESS

- **Rusi Wang** and Chi Xie. Dynamic equilibrium in multimodal networks with carpooling, autonomous taxis, and public transit. *Work in progress*.
- **Rusi Wang** and Chi Xie. Second-best congestion pricing in dynamic traffic networks: A bilevel optimization model with a convex dynamic user equilibrium formulation. *Work in progress*.

RESEARCH EXPERIENCE

Visiting undergraduate research, LISITE Lab, Institut Supérieur d'Électronique de Paris Sep 2019–Feb 2020

- Studied melanoma classification with convolutional neural networks trained on dermoscopic images from the ISIC database, under Dr. Ercüment Yılmaz and Prof. Maria Trocan.

PROJECTS

Loopae, software for transportation network equilibrium analysis 2026–present
Lead developer of Loopae, an interactive environment for computing, analyzing, and visualizing transportation network equilibria; continuing to refine and extend its capabilities.

PRESENTATION

A convex programming model for dynamic ridesharing user equilibrium. Upcoming: accepted for presentation at the 106th Annual Meeting of the Transportation Research Board, Washington, D.C., 10–14 January 2027.

SCHOLARSHIPS AND AWARDS

Chuangmai Scholarship, Tongji University	2023
Excellent Student Scholarship, University of Electronic Science and Technology of China	2019
Scholarship Under the State Scholarship Fund, China Scholarship Council	2019
Honorable Mention, Interdisciplinary Contest in Modeling	2019
First Prize, Sichuan Provincial Undergraduate Electronic Design Contest	2018

ACADEMIC SERVICE

Journal reviewer, *Socio-Economic Planning Sciences* (2026).