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教育经历

- **慕尼黑工业大学, 慕尼黑, 德国** 2021年6月– 现在

  博士, 交通系统工程

  论文: Simulation-based evaluation and optimization of urban transportation system resilience

- **慕尼黑工业大学, 慕尼黑, 德国** 2018年10月– 2020年10月

  硕士, 交通运输系统

  论文: Developing dynamic pricing methods for ride-sharing services

- **中山大学, 广州, 中华人民共和国** 2014年9月– 2018年7月

  本科, 交通工程

  论文: 基于出租车轨迹数据的出租车乘客需求预测

科研经历

- **交通系统工程组, 慕尼黑工业大学** 2021年6月– 现在

  博士研究员 慕尼黑，德国

- **智能交通系统实验室, 京都大学** 2023年5月– 2023年7月

  访问学者 京都, 日本

  – 基于宏观基本图评估和优化交通流韧性

- **交通系统工程组, 慕尼黑工业大学** 2020年11月– 2021年4月

  研究助理 慕尼黑，德国

  – 耦合主成分分析和同步扰动随机近似法用于OD校准

- **电气工程学院, 卢布尔雅那大学** 2020年3月– 2020年4月

  研究助理 卢布尔雅那, 斯洛文尼亚

  – 探究不同自动驾驶模式对于网络交通效率的影响

- **交通系统工程组, 慕尼黑工业大学** 2019年4月– 2020年3月

  研究助理 慕尼黑，德国

  – 动态拼车系统：乘客偏好、运营建模和基于模拟的影响量化

主要论文

期刊论文

1 Z.-J. Liu, **Q.-L. Lu***, and J. Gao, "A similarity-based data-driven car-following model considering driver heterogeneity," *Transportation research procedia*, 2023, (in press).

2 **Q.-L. Lu**, M. Qurashi, and C. Antoniou, "Simulation-based policy analysis: The case of urban speed limits," *Transportation Research Part A: Policy and Practice*, vol. 175, p. 103 754, 2023.

3 **Q.-L. Lu**, M. Qurashi, and C. Antoniou, "A ridesplitting market equilibrium model with utility-based compensation pricing," *Transportation*, pp. 1–36, 2022.

4 M. Qurashi, **Q.-L. Lu**, G. Cantelmo, and C. Antoniou, "Dynamic demand estimation on large scale networks using principal component analysis: The case of non-existent or irrelevant historical estimates," *Transportation Research Part C: Emerging Technologies*, vol. 136, p. 103 504, 2022.

5 **Q.-L. Lu**, M. Qurashi, D. Varesanovic, J. Sodnik, and C. Antoniou, "Exploring the influence of automated driving styles on network efficiency," *Transportation research procedia*, vol. 52, pp. 380–387, 2021.

6 **Q.-L. Lu**, "A structural equations approach for modeling the endogeneity of lane-mean speeds considering the downstream speeds," *European journal of transport and infrastructure research*, vol. 20, no. 4, pp. 252–265, 2020.

会议论文

1   N. Yang, **Q.-L. Lu***, C. Lyu, and C. Antoniou, "Transfer learning for transportation system resilience patterns prediction using floating car data," in *103rd Annual Meeting of the Transportation Research Board (TRB 2024)*, 2024.

2   **Q.-L. Lu**, M. Qurashi, and C. Antoniou, "A two-stage stochastic programming approach for dynamic od estimation," in *102nd Annual Meeting of the Transportation Research Board (TRB 2023)*, 2023.

3   **Q.-L. Lu**, W. Sun, J. Dai, J.-D. Schmöcker, and C. Antoniou, "Surrogate modeling for recovery measures optimization to improve MFD-based traffic resilience," in *The 9th International Symposium on Transport Network Resilience (INSTR)*, 2023.

4   **Q.-L. Lu**, W. Sun, D. Jiannan, J.-D. Schmöker, and C. Antoniou, "An MFD-based optimization approach to improve transportation system resilience under infrastructure disruptions," in *25th Euro Working Group on Transportation Conference (EWGT 2023)*, 2023.

5   M. Neun, C. Eichenberger, H. Martin, *et al.*, "Traffic4cast at neurips 2022–predict dynamics along graph edges from sparse node data: Whole city traffic and eta from stationary vehicle detectors," in *NeurIPS 2022 Competition Track*, PMLR, 2022, pp. 251–278.

6   **Q.-L. Lu**, K. Yang, and C. Antoniou, "Crash risk analysis for the mixed traffic flow with human-driven and connected and autonomous vehicles," in *2021 IEEE International Intelligent Transportation Systems Conference (ITSC)*, IEEE, 2021, pp. 1233–1238.

7   M. Qurashi, **Q.-L. Lu**, G. Cantelmo, and C. Antoniou, "PC-SPSA: Exploration and assessment of different historical data–set generation methods for enhanced DTA model calibration," in *9th Symposium of the European Association for Research in Transportation (hEART2020)*, 2021.

技术报告(正在审稿)

1   **Q.-L. Lu**, V. Mahajan, C. Lyu, and C. Antoniou, *Analyzing the impact of fare-free public transport policies on crowding patterns at stations using crowdsensing data*, Preprint, (投稿至Transportation Research Part A: Policy and Practice).

2   **Q.-L. Lu**, M. Qurashi, and C. Antoniou, *A two-stage stochastic programming approach for dynamic od estimation using LBSN data*, (投稿至Transportation Research Part C: Emerging Technologies).

3   **Q.-L. Lu**, W. Sun, J. Dai, J.-D. Schmöcker, and C. Antoniou, *Traffic resilience based on macroscopic fundamental diagram: Evaluation and the role of network topology*, Preprint, (投稿至Reliability Engineering & System Safety).

4   C. Lyu, **Q.-L. Lu**, X. Wu, and C. Antoniou, *Tucker factorization-based tensor completion for robust transport data imputation*, (投稿至Transportation Research Part C: Emerging Technologies).

审稿经历

期刊

- Transportation Research Part A: Policy and Practice
- Transportation Letters: The International Journal of Transportation Research
- Research in Transportation Business and Management

国际会议

- Transportation Research Board
- IEEE Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS)
- MobilTUM

基金，荣誉&奖项

• 最佳博士生海报, Euro Working Group on Transportation	2023年10月
• DAAD-Kyoto University Partnership Programme, DAAD	2023年5月
• Traffic4Cast Competition 2022: 第二名, IARAI	2022年11月
• 2021年巴伐利亚州最佳硕士生论文, ITS Bavaria	2022年5月
• DAAD毕业生奖学金, DAAD	2020年8月
• 短期科学研究任务基金, WISE-ACT and DAAD	2020年4月

项目

- 基于深度学习的城市交通需求模式预测   2021年4月- 2024年4月
  欧盟-日本合作项目
- 网络状态受损下基于MFD的交通系统韧性优化   2023年4月- 2023年7月
  德意志学术交流中心-京都大学面向2023年可持续发展目标的合作伙伴计划

- 联系单车驾驶和网络效率的互联自动驾驶汽车场景部署设计   2020年4月- 2020年5月
  欧洲科技合作计划CA16222项目下的自主和互联交通的更广泛影响和情景评估

教学经历

- **2021/2022/2023** 冬季学期   10月- 次年2月
  - Special Topics on Model Calibration

- **2022** 夏季学期   4月- 8月
  - Statistical Learning and Data Analytics for Transportation Systems
  - Optimization for Transportation Systems

- 论文指导
  - Transfer learning for transportation system resilience estimation using floating car data (2022年11月- 2023年5月. 硕士毕业论文) (2023年巴伐利亚州最佳硕士生论文)
  - Calibration of car-following models with genetic algorithm and particle swarm optimization methods (2022年5月- 2022年10月. 本科毕业论文)