

Lucas Javaudin

PhD Candidate · Transportation Economics

THEMA, CY Cergy Paris Université

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Education

CY Cergy Paris Université

PhD in Economics

Cergy, FR

2020 - 2024

Title: Development of a Dynamic Transport Simulator for Policy Evaluation: Applications to Ride-Sharing and Low Emission Zone in Paris

Supervisor: André de Palma

ENS Paris-Saclay / École Polytechnique / ENSAE

Master in Economics

Palaiseau, FR

2016 - 2020

Normalien

Specialization: Econometrics / Data Science and Social Sciences

Université de Rennes 1

Bachelor in Economics and Management

Rennes, FR

2014 - 2016

Two-year intensive program to enter the ENS

Professional Experience

2019 **Internship in data science and cycling mobilities**, IFP Énergies Nouvelles

2018 **Visiting International Research Student**, Sauder School of Business, University of British Columbia

2018 **Internship on dynamic traffic assignment models**, CREST, ENSAE

2017 **Internship on urban and transportation economics**, CREST, ENS Paris-Saclay

Publications

Refereed Journal Articles

de Palma, A., Javaudin, L., Stokkink, P., & Tarpin-Pitre, L. (2024). Ride-sharing with inflexible drivers in the Paris metropolitan area. *Transportation*, 51, 963-986.

Javaudin, L., Araldo, A., & de Palma, A. (2023). Personalised incentives with constrained regulator's budget. *Transportmetrica A: Transport Science*, 1-43.

Conference Proceedings

Javaudin, L., Araldo, A., & de Palma, A. (2022). Large-scale allocation of personalized incentives. *2022 IEEE 25th International Conference on Intelligent Transportation Systems (ITSC)*, 4151-4156.

Manuscripts in Preparation

Javaudin, L., & de Palma, A. (2024). *METROPOLIS2: Bridging Theory and Simulation in Agent-Based Transport Modeling* [Working paper]. THEMA, CY Cergy Paris Université. <https://thema.u-cergy.fr/IMG/pdf/2024-03.pdf>

Javaudin, L., & de Palma, A. (2024). *Impact of Low Emission Zones on Spatial and Economic Inequalities using a Dynamic Transport Simulator* [Unpublished].

Conference Activity

Presentations at Conferences

- 2024 AFET Second Annual Conference, Paris, FR, November 20–21
Impact of Low Emission Zones on Spatial and Economic Inequalities using a Dynamic Transport Simulator
- 2024 ITEA 2024, Leeds, GB, June 26–28
Bridging the gap between theory and simulation in the bottleneck model
- 2024 AICC 2024, Strasbourg, FR, June 17–18
Impact of Low Emission Zones on Spatial and Economic Inequalities using a Dynamic Transport Simulator
- 2023 ITEA 2023, Santander, ES, June 14–16
At what time?
- 2022 IEEE 25th International Conference on Intelligent Transportation Systems (ITSC), Macau, CN (Online), October 8–12
Large-scale allocation of personalized incentives
- 2022 ITEA 2022, Toulouse, FR, June 15–17
Braess paradox on large-size networks with a dynamic traffic simulator

Presentations at Workshops

- 2024 Synthetic Population Workshop, IRT SystemX, Gif-sur-Yvette, FR, November 8
Ride-sharing with inflexible drivers in the Paris metropolitan area
- 2023 Workshop Open Challenges in Flexible Mobility, Télécom Paris, Palaiseau, FR, February 24
Ride-sharing with inflexible drivers in the Paris metropolitan area

Teaching Experience

METROPOLIS2 Spring 2024 Online Course

Seven 2-hour sessions, CY Cergy Paris Université, Online, 2024

Agent-based transport simulators (in French)

Two hours, École des Ponts et Chaussées, Champs-sur-Marne, FR, 2024

Individual behaviors and microeconomic analysis of public policies (in French)

Five 2-hour sessions, CY Cergy Paris Université, Cergy, FR, 2021

Mentoring

2023-2024 Student group supervision, École des Ponts et Chaussées

2022-2024 Intern monitoring, CY Cergy Paris Université

Service to Profession

Peer Review

Transportation Research Part C

Journal of Environmental Planning and Management

Other

Organization of the AFFINITE Seminar (30 sessions in 2022-2024)

Consulting for *Société des Grand Projets*

Professional Skills

Python (numpy, polars, pandas, geopandas, Django)

Rust

QGIS

PostgreSQL + PostGIS

Linux system administration

Languages

French *Native*

English *Fluent (Cambridge English: Advanced C1)*

Spanish *Conversational*

References

André de Palma *Professor Emeritus, THEMA, CY Cergy Paris Université*
andre.de-palma@cyu.fr

Nathalie Picard *Professor, BETA, University of Strasbourg*
picardn@unistra.fr

Robin Lindsey *Professor Emeritus, Sauder School of Business, University of British Columbia*
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