

Dr. Juste Raimbault

Positions

- Since 2022 **Permanent Research Fellow for Sustainable Development**, LaSTIG, IGN-ENSG.
Validation of spatial simulation models, Land-use transport interactions, Urban morphogenesis
- 2019–2021 **Research Fellow**, CASA, UCL, London, UK.
Coupling land-use transport interaction models with microsimulation models
- 2018–2019 **Post-doctoral Researcher**, Complex Systems Institute - UPS CNRS 3611 ISC-PIF, Paris, France.
Developing methods to validate spatial simulation models

Education

- 2015–2018 **PhD in Geography**, Géographie-cités (UMR 8504 CNRS) / LVMT (UMR-T 9403 IFSTTAR).
Characterizing and Modeling the Co-evolution of Transportation Networks and Territories
- 2012–2014 **MSc Complex Systems Science**, Ecole Polytechnique (Ingénieur Diplômé).
- 2013–2014 **MSc Urbanism, Environment, Transportation**, Ecole Nationale des Ponts et Chaussées.

Selected publications

- Raimbault J. & Pumain D. (2023). Innovation dynamics in multi-scalar systems of cities. ALIFE 2023: The 2023 Conference on Artificial Life. MIT Press. [DOI:10.1162/isal_a_00702](https://doi.org/10.1162/isal_a_00702)
- Raimbault, J., & Pumain, D. (2022). Trade-offs between sustainable development goals in systems of cities. *Journal of Urban Management*, 11(2), 237-245. [DOI:10.1016/j.jum.2022.05.008](https://doi.org/10.1016/j.jum.2022.05.008)
- Nacer-Weill A., Yang C., Barbet T. & Raimbault J. (2022). An agent-based model for modal shift in public transport. *Transportation Research Procedia*, 62, 711–718. [DOI:10.1016/j.trpro.2022.02.088](https://doi.org/10.1016/j.trpro.2022.02.088)
- Raimbault, J. & Le Néchet, F. (2021). Introducing endogenous transport provision in a LUTI model to explore polycentric governance systems. *Journal of Transport Geography*, 94, 103115. [DOI:10.1016/j.jtrangeo.2021.103115](https://doi.org/10.1016/j.jtrangeo.2021.103115)
- Raimbault J., Denis E., Pumain D. (2020). Empowering Urban Governance through Urban Science: Multi-Scale Dynamics of Urban Systems Worldwide. *Sustainability*, 12, 5954. [DOI:10.3390/su12155954](https://doi.org/10.3390/su12155954)
- Raimbault J., Broere J., Somveille M., Serna J.M., Strombom E. Moore C., Sugar L., Zhu B. (2020). A spatial agent based model for simulating and optimizing networked eco-industrial systems. *Resources Conservation and Recycling*, 155, 104538. [DOI:10.1016/j.resconrec.2019.104538](https://doi.org/10.1016/j.resconrec.2019.104538)
- Raimbault, J. (2020). Indirect evidence of network effects in a system of cities. *Environment and Planning B: Urban Analytics and City Science*, 47(1), 138-155. [DOI:10.1177/2399808318774335](https://doi.org/10.1177/2399808318774335)
- Raimbault, J., & Pumain, D. (2019). Methods for Exploring Simulation Models. In *Pumain D. (ed.), Geographical Modeling (pp. 125-150)*. Wiley Online Library. [DOI:10.1002/9781119687290.ch5](https://doi.org/10.1002/9781119687290.ch5)
- Raimbault J., Cottineau C., Le Texier M., Le Nechet F. & Reuillon R. (2019). Space Matters: extending sensitivity analysis to initial spatial conditions in geosimulation models. *Journal of Artificial Societies and Social Simulation*, 22(4), 10. [DOI:10.18564/jasss.4136](https://doi.org/10.18564/jasss.4136)
- Raimbault, J. (2019). Exploration of an interdisciplinary scientific landscape. *Scientometrics*, 119(2), 617-641. [DOI:10.1007/s11192-019-03090-3](https://doi.org/10.1007/s11192-019-03090-3)

Teaching

ENSG, 2022-2025, Spatial Analysis and Spatial Statistics; **ENPC, 2021-2025** Transport Models; **UCL, 2019-2021**, Urban Simulation; **U. Paris Diderot, 2015-2018**, Spatial Analysis.

Grants

MITI CNRS, 30k€ (2021-2022); **UKCRIC DAFNI Champion grant**, 39k GBP (2020-2021)

Languages

French, Native

German, Fluent, European Baccalaureate

English, Fluent

Mandarin Chinese, Beginner, level HSK3