Rafael H. M. Pereira

Rafael Pereira is a senior researcher (tenured) in the fields of urban analytics, spatial data science and transport studies at the Institute for Applied Economic Research (Ipea), Brazil, where he leads the Data Science team and the Access to Opportunities Lab (AOP-Lab). Rafael is also a visiting professor at the Department of Geography and Planning at the University of Toronto (2024-2025). His research looks broadly at how urban policies and technologies shape the spatial organization of cities, human mobility as well as their impacts on social and health inequalities. Some of his key contributions to the fields of urban analytics and planning involve the development of new methods and open-source computational tools to study of urban systems and transportation networks. These contributions emerge from substantive interests around social justice and sustainability issues in urban development; with particular focus on issues of inequalities in access to opportunities, and the environmental impacts of built environments and mobility patterns. He is particularly interested in the equity concerns underlying urban and transport planning policies and their effects on inequalities in access to opportunities.

CONTACT:

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✉ rafael.pereira@ipea.gov.br   🌐 urbandemographics.org   [Google Scholar](#)

github.com/rafapereirabr   [@UrbanDemog](#)   [LinkedIn](#)

APPOINTMENTS

2024-25	Visiting professor (Bousfield Distinguished Visitor in Planning) Department of Geography and Planning University of Toronto
2023 -	Head of Data Science Department of Data Science and Information Technology Ipea – Institute for Applied Economic Research
2017-2022	Head of Spatial Data Science Department of Regional, Urban and Environmental Studies and Policies Ipea – Institute for Applied Economic Research
2009-	Researcher (Tenured since 2013) Ipea – Institute for Applied Economic Research
2008-2009	Research Assistant Ipea – Institute for Applied Economic Research
2006-2008	Research Assistant Population Studies Centre (NEPO/Unicamp)
2005-2006	Trainee Labor Prosecution Ministry (MPT), Affirmative Action Program

2003-2005   President
Junior Consultancy on Social Science Research (SOCIUS)

EDUCATION

2013-18   PhD in Geography and the Environment, approved with no corrections
Oxford University, St. Edmund Hall, UK
Thesis: Distributive justice and transportation equity: inequality in accessibility in Rio
Advisors: Tim Schwanen and David Banister; Examiners: Bert van Wee, Nihan Akyelken

2006-08   Masters in Demography
State University of Campinas (Unicamp), Brazil
Dissertation: Socio-spatial structure of urban space and commuting patterns [PORT]
Advisor: Daniel Hogan; Examiners: Luciana Correa do Lago, José Marcos Pinto da Cunha

2002-06   B.S. in Sociology
University of Brasilia (UnB), Brazil
Dissertation: Urban polarization and spatial mobility: school trips in the capital [PORT]
Advisor: Brasilmar Nunes

PUBLICATIONS

Google Scholar Citations: 9,531 | h-index: 38 | i10-index: 74 | *Profile page*

Peer-reviewed Papers

56. 2025 F Creutzig,…, **Pereira RHM** et al Bridging the scale between the local particular and the global universal in climate change assessments of cities. *Nature Cities*.

55. 2025 S Knoblauch, …, **Pereira RHM** et al. Crime-associated inequality in geographical access to education: Insights from the municipality of Rio de Janeiro. *Cities*.

54. 2025 I Borges, …, Pereira RHM et al. TB as a risk factor for severe COVID-19 mortality. *The International Journal of Tuberculosis and Lung Disease*.

53. 2025. Y Liao, J Gil, S Yeh, **Pereira RHM**, L Alessandretti. Socio-spatial segregation and human mobility: A review of empirical evidence. *Computers, Environment and Urban Systems*.

52. 2025. B Adorno, **Pereira RHM**, S Kampel. Combining spatial clustering and spatial regression models to understand distributional inequities in access to urban green spaces. *Landscape and Urban Planning*.

51. 2024 A Turbay, **Pereira RHM**, R Firmino. The equity implications of TOD in Curitiba. *Case Studies on Transport Policy*

50. 2024 A Karner, **Pereira RHM**, S Farber. Advances and pitfalls in measuring transportation equity. *Transportation*.

49. *2024* J Oliveira, F Moraes, **Pereira RHM**. A novel route-based accessibility measure and its association with transit ridership. *Transportation Research Part A: Policy and Practice*.

48. 2024 D Tomasiello et al. **Pereira RHM** Racial and income inequalities in access to health in Brazilian cities. *Journal of Transport & Health*.

47. 2024 **Pereira RHM**, S Farber, D Herszenhut, M Saraiva. Ride-hailing and transit accessibility considering the trade-off between time and money. *Cities*. *

* Awarded Best Paper Award of the 2024 WSTLUR - World Symposium on Transport and Land Use Research

46. 2024 E Willberg, H Tenkanen, H Miller, **Pereira RHM,** T Toivonen. Measuring just accessibility within planetary boundaries. *Transport Reviews*.

45. 2023 **Pereira RHM**, R Vieira et al. Free public transit and voter turnout. *Electoral Studies*.

44. 2023 J Ryan, **Pereira RHM,** M Andersson. Accessibility and space-time differences in when and how different groups (choose to) travel. *Journal of Transport Geography*.

43. 2023 D Tomasiello et al. **Pereira RHM**. A time interval metric for cumulative opportunity accessibility. *Applied Geography*.

42. 2023 K Braga, C Loureiro, **Pereira RHM**. Evaluating the impact of public transport travel time inaccuracy and variability on socio-spatial inequalities in accessibility. *Journal of Transport Geography*.

41. 2023 J Bazzo, **Pereira RHM**, P Andrade. Estimating public transport emissions from General Transit Feed Specification data. *Transportation Research Part D: Transport and Environment*.

40. 2023 S Yücel, **Pereira RHM**, P Peixoto, C Camargo. Impact of network centrality and income on slowing infection spread after outbreaks. *Applied Network Science*.

39. 2022 **Pereira RHM**, P Andrade, J Bazzo. Exploring the time geography of public transport networks with the gtfs2gps package. *Journal of Geographical Systems*.

38. 2022 D Herszenhut, **Pereira RHM**, L Portugal, M Sousa**.** The impact of transit monetary costs on transport inequality. *Journal of Transport Geography*.

37. 2022 S Yeh, ... **Pereira RHM** et al. Improving future travel demand projections: a pathway with an open science interdisciplinary approach. *Progress in Energy*.

36. 2022 J Bazzo, K Braga, **Pereira RHM**. The impact of COVID-19 on air passenger demand and CO2 emissions in Brazil. *Energy Policy*.

35. 2022 A Brizzi, C Whittaker, L Servo, ... **Pereira RHM**, et al. Spatial and temporal fluctuations in COVID-19 fatality rates in Brazilian hospitals. *Nature Medicine*.

34. 2022 C Prete, T Salomon, ... **Pereira RHM** et al. SARS-CoV-2 antibody dynamics in blood donors and COVID-19 epidemiology in eight Brazilian state capitals: A serial cross-sectional study. *eLife*.

33. 2022   L Buss, C Prete, T Salomon, ... **Pereira RHM** et al. Predicting SARS-CoV-2 Variant Spread in a Completely Seropositive Population Using Semi-Quantitative Antibody Measurements in Blood Donors. *Vaccines*.

32. 2021   H Wu, ... **Pereira RHM**, D Levison et al. Urban access across the globe: an international comparison of different transport modes. *npj Urban Sustainability*.

31. 2021   J Ryan, **Pereira RHM**. What are we missing when we measure accessibility? Comparing calculated and self-reported accounts among older people. *Journal of Transport Geography*.

30. 2021   S Li, **Pereira RHM**, C Prete et al. Higher risk of death from COVID-19 in low-income and non-White populations of São Paulo, Brazil. *BMJ Global Health*.

29. 2021   N Faria, T Mellan, ... **Pereira RHM** et al. E Sabino. Genomics and epidemiology of the P.1 SARS-CoV-2 lineage in Manaus, Brazil. *Science*.

28. 2021   **Pereira RHM** et al. Geographic access to COVID-19 healthcare in Brazil using a balanced float catchment area approach. *Social Science & Medicine*.

27. 2021   **Pereira RHM,** M Saraiva, D Herszenhut, C Braga, M Conway. r5r: Rapid Realistic Routing on Multimodal Transport Networks with R^5 in R. *Findings*.

26. 2021   P Alves, L Emanuel, **Pereira RHM**. Highway concessions and road safety: Evidence from Brazil. *Research in Transportation Economics*.

25. 2021   A Santos, ... **Pereira RHM**, et al. E Sabino, N Faria, et al. Dataset on SARS-CoV-2 non-pharmaceutical interventions in Brazilian municipalities. *Scientific Data*.

24. 2021   P. Mee, O. Brady, ... **Pereira RHM**, et al. Tracking the emergence of disparities in the subnational spread of COVID-19 in Brazil using an online application for real-time data visualisation: a longitudinal analysis. *The Lancet Regional Health - Americas*.

23. 2021   E. Sabino, ... **Pereira RHM**, et al N Faria. Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence. *The Lancet*.

21. 2021   L Buss, ... **Pereira RHM**, E Sabino, N Faria, et al. Three-quarters attack rate of SARS-CoV-2 in the Brazilian Amazon during a largely unmitigated epidemic. *Science*.

22. 2020   Y. Liao, J. Gil, **Pereira RHM**, et al. Disparities in travel times between car and transit: Spatiotemporal patterns in cities. *Scientific Reports*.

20. 2020   C Braga, L Loureiro, **Pereira RHM.** Analyzing the variability of public transit accessibility estimates using GPS data. *Transportes*. [*In Portuguese*]

19. 2020   D Candido, ... **Pereira RHM**, et al, E Sabino, N Faria. Evolution and epidemic spread of SARS-CoV-2 in Brazil. *Science*.

18. 2020   W Souza, ... **Pereira RHM**, et al. E Sabino, N Faria. Epidemiological and clinical characteristics of the COVID-19 epidemic in Brazil. *Nature Human Behavior*.

17. 2020   S Costa, … **Pereira RHM**, et al. E Sabino. Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) seroprevalence and risk factors among oligo/asymptomatic healthcare workers: estimating the impact of community transmission. *Clinical Infectious Diseases*.

16. 2019   **Pereira RHM**, T Schwanen, D Banister, N Wessel. Distributional effects of transport policies on inequalities in access to opportunities in Rio de Janeiro. *Journal of Transport and Land Use*.*

    * Awarded Young Researcher of the Year Award by the International Transport Forum (ITF/OECD)

15. 2019   **Pereira RHM.** Future accessibility impacts of transport policy scenarios: Equity and sensitivity to travel time thresholds for Bus Rapid Transit expansion in Rio de Janeiro. *Journal of Transport Geography*.*

    * Awarded the Lee Schipper Memorial Scholarship by WRI and the World Bank

14. 2019   T Sá, P Edwards, **Pereira RHM,** C Monteiro. Right to the city and human mobility transition: The case of São Paulo. *Cities*.

13. 2018   J Mayaud, M Tran, **Pereira RHM**, R Nuttall. Future access to essential services in a growing smart city: The case of Surrey, British Columbia. *Computers, Environment and Urban Systems*.

12. 2018   **Pereira RHM.** Transport legacy of mega-events and the redistribution of accessibility to urban destinations. *Cities*.

11. 2017   **Pereira RHM,** T Schwanen, D Banister. Distributive justice and equity in transportation. *Transport Reviews*.

10. 2016   T Sá, **Pereira RHM,** A Duran, C Monteiro. Socioeconomic and spatial differences in active travel in Brazil. *Revista de Saude Publica*.

9. 2016   L Emiliano, **Pereira RHM,** F Freire. Mortality differentials according to schooling in Brazilian adults in 2010, 2010. *Cadernos de Saude Publica*.

8. 2015   **Pereira RHM**, C Carvalho, P Souza, A Camarano Population aging, fare concessions on public transport and its effects on transport fares in São Paulo Metropolitan Area. *Revista Brasileira de Estudos de População*. [*In Portuguese*]

7. 2014   **Pereira RHM**, C Carvalho Household expenditure on urban transport in Brazil, 2003 and 2009. *Revista dos Transportes Públicos*. [*In Portuguese*]

6. 2014   **Pereira RHM**, P Nascimento, T Araujo. A demographic projection of engineering labor force in Brazil through 2020. *Revista Brasileira de Estudos de População*. [*In Portuguese*]

5. 2012   **Pereira RHM**, et al. The use of Space Syntax in urban transport analysis: limits and potentials. Proceedings: Eighth International Space Syntax Symposium.

4. 2012   **Pereira RHM**, et al. Urban Centrality: A Simple Index. *Geographical Analysis*.

3. 2012 C Carvalho, **Pereira RHM**. The effects of income and fare variation on the demand for bus transit services in Brazil. *Transportes*. [*In Portuguese*]

2. 2010 R Ojima, E Marandola, **Pereira RHM**. The stigma of living far away from the city: Rethinking the consensus on dormitory towns. *Cadernos Metrópole.*[*In Portuguese*]

1. 2007 R Ojima, R Siva, **Pereira RHM**. Defining Dormitory towns with commuting data: Sociodemographic characterization and new spatial dynamics in Brazilian Urban Agglomerations. *Cadernos IPPUR/UFRJ*. [*In Portuguese*]

Papers currently under review

4. *Under Review* R Vieira, **Pereira RHM**, L Emanuel, P Alves. The Effects of Fare-Free Transit on the Travel Behavior of Older Adults. *Preprint*

3. *Under Review* F Wagner, … **Pereira RHM** etc. A Causal Discovery Approach To Learn How Urban Form Shapes Sustainable Mobility Across Continents. *Preprint*

2. *Under Review* L Liu, X Li, X Yan, **Pereira RHM**. Measuring Exposure to Extreme Heat in Public Transit Systems. *Preprint*

1. *Under Review* Y Liao, J Gil, S Yeh, **Pereira RHM**, L Alessandretti. The Uneven Impact of Mobility on the Segregation of Native and Foreign-born Individuals. *Preprint*

Work in progress (papers)

1. **Pereira RHM** et al. Urban form and sustainable Mobility
2. **Pereira RHM**, M Saraiva. Social exclusion and insufficient access to schools
3. C Silva, B Büttner … **Pereira RHM** et al. Understanding Proximity-centred Accessibility – a worldwide survey of planning practitioners.
4. D Tomasiello, V Nadalin, **Pereira RHM**. The impact of traffic congestion on employment accessibility levels and inequality
5. **Pereira RHM**, J Bazzo. Trends and inequalities in active transport in Brazil
6. R Barbosa, **Pereira RHM** et al. Cash transfers and social distancing during pandemics
7. D Herszenhut, **Pereira RHM**, M Bhagat-Conway,A Stewart, M Saraiva. How the trade-off between time and money shapes accessibility conditions

Guest-edited special issues

3. 2024 G McKenzie, A Calafiore, H Tenkanen, EK Kim, **Pereira RHM**. Environmentally and socially sustainable mobility. *Computers, Environment and Urban Systems*.

1. 2023 H Tenkanen, **Pereira RHM**, E Arcaute, MC Gonzalez. [Advances in geospatial approaches to transport networks and sustainable mobility](). *Environment and Planning B: Urban Analytics and City Science.*

Books authored

4. *In progress* C Higgins, A Paez, D Herszenhut, **Pereira RHM**. *Advanced topics in urban accessibility: a practical guide in R*. Under contract with Routledge , CRC Press.

2. 2023 **Pereira RHM**, D Herszenhut. [*Introduction to Urban Accessibility: a practical guide in R*](). Brasília: Instituto de Pesquisa Econômica Aplicada.

1. 2023 **Pereira RHM**, D Herszenhut. [*Introdução à acessibilidade urbana um guia prático em R*](). Brasília: Instituto de Pesquisa Econômica Aplicada.

   * Finalist of the 2024 Academic Jabuti Award

Books Edited

2. 2021 **Pereira RHM**, G Boisjoly. [*Social Issues in Transport Planning*](). (Vol. 8 of the Advances in Transport Policy and Planning organized by Bert van Wee). Elsevier.

1. 2011 **Pereira RHM,** B Furtado. [*Urban-Regional Dynamics: Urban Network and its Interfaces*](). Ed. 1. ed. Brasília: Instituto de Pesquisa Econômica Aplicada, V.1. 490p. [*In Portuguese*]

Book Chapters

13. 2021 **Pereira RHM**, A Karner. [Transportation Equity](). In R Vickerman (Ed.), International Encyclopedia of Transportation (2021). 1 st Edition, Elsevier.

12. 2021 **Pereira RHM**, G Boisjoly. [Preface: Social issues in transport planning](). In Pereira and Boisjoly (Editors), *Social Issues in Transport Planning* (Advances in Transport Policy and Planning Vol. 8). Elsevier.

11. 2021 L Warwar, **Pereira RHM**. [Mobilidade por aplicativo no Brasil: características e padrões de consumo](). In V Callil & D Costanzo, *Mobilidade por aplicativo: Estudos em cidades brasileiras*. 1st edition, Cebrap.

10. 2020 **Pereira RHM.** [Transport Legacy of Mega-Events and Inequalities in Access to Opportunities in Rio de Janeiro](), in *Evaluating the Local Impacts of the Rio Olympics*, Edited by M Neri. Routledge.

9. 2013   A Maciente, P Nascimento, **Pereira RHM.** The spatial distribution of skilled labor force in Brazil. In *Brasil em Desenvolvimento 2013 - Estado, Planejamento e Políticas Públicas*, Edited by Boueri and Costa. Ipea. V.2 p.421-440 (*in Portugese*)

8. 2013   M Castello Branco, V Nadalin, **Pereira RHM** Revisiting the delimitation of metropolitan boundaries in Brazil. In *Território metropolitano, políticas municipais: por soluções conjuntas de problemas urbanos no âmbito metropolitano*, edited by Furtado, Krause and França. Ipea. V.1 p.115-154 (*in Portugese*)

7. 2012   **Pereira RHM,** M Costa et al. Current Situation and Prospects of the Federal Program for Supporting Municipal Urban Management. In *Federalismo à Brasileira: questões para discussão*, edited by Linhares, Mendes and Lassance. Ipea. V.8, p.59-84 (*in Portugese*)

6. 2011   **Pereira RHM**. Conceptual basis for the Brazilian urban network: a literature review (with C. Egler, Mendes and Furtado) in Urban-*Regional Dynamics: Urban Network and its Interfaces*, edited by Pereira and Furtado. Ipea. V.1 p.25-46 (*in Portugese*)

5. 2011   **Pereira RHM,** M Matteo**.** Urban network studies and guidance for planning: public and private sectors perceptions. In *Urban-Regional Dynamics: Urban Network and its Interfaces*, edited by Pereira and Furtado. Ipea. V.1 p.47-60 (*in Portugese*)

4. 2011   **Pereira RHM,** V Herrero. Commuting: a typology proposal. In *Estudos demográficos na Argentina e Brasil: resultados de cooperação entre estudantes e docentes da Unicamp e UNC*. Campinas, edited by Aidar and Pelaez. SPU/AR and CAPES/BR. V.1, p.106-127 (*in Portugese*)

3. 2010   R Vasconcellos, **Pereira RHM** et al Urban mobility in Brazil. In *Infraestrutura Social e Urbana no Brasil: subsídios para uma agenda de pesquisa e formulação de políticas públicas*, edited by M Morais and M Costa. Ipea. V.2, p.549-592 (*in Portugese*)

2. 2009   M Morais, **Pereira RHM**, et al. Brazilian Urban Policies and the Federal Constitution of 1988. In *A Constituição Brasileira de 1988 Revisitada: Recuperação Histórica e Desafios Atuais das Políticas Públicas nas Áreas Regional, Urbana e Ambiental*, edited by Cardoso Jr. Castro and Motta. Ipea. V.2, p.117-158 (*in Portugese*)

1. 2009   M Morais, **Pereira RHM**, et al. Recent performance of federal programs for public transport and urban Mobility. In *Brasil em desenvolvimento: Estado, planejamento e políticas públicas*, edited by Cardoso Jr. Ipea. V.2, p.451-469 (*in Portugese*)

Working papers and reports

See full list on my personal website or Google Scholar

SOFTWARE (total downloads)

- **r5r**: Rapid realistic routing on multimodal transport networks with R5 – R package   (924K)
- **geobr**: Download Official Spatial Data Sets of Brazil – R and Python packages   (328K)
- **gtfs2gps**: Converting Transport Data from GTFS Format to GPS-Like Records – R package   (33K)
- **gtfstools**: Convenient tools to edit, manipulate and analyze GTFS transit feeds – R package   (32K)
- **r5py**: Rapid Realistic Routing with R5 in Python – Python package   (32K)
- **aopdata**: Data from the Access to Opportunities Project – R package   (23K)
- **accessibility**: Transport Accessibility Metrics – R package   (22K)
- **flightsbr**: Download flight and airport data from Brazil – R package   (21K)
- **censobr**: Download Data from Brazil's Population Census – R package   (12K)
- **gtfs2emis**: Estimating public transport emissions from GTFS data – R package   (6.9K)
- **uci**: Urban Centrality Index – R package   (3.7K)
- **odbr**: Download Data from Brazil's Origin Destination Surveys – R package   (2.8K)
- **enderecobr**: Brazilian Addresses Standardizer – R package   (3K)
- **geocodebr**: Geocoding Brazilian Addresses– R package   (1.1K)
- **esquinadobrasil**: Bot that tweets a satellite image, total population and population density estimate of a random Brazilian census tract every 15 minutes – R bot (3.4K followers)

TEACHING

2025	Workshop on "A Crash Course on Urban Accessibility with R", as part of the Bousfield Visiting Professor position, delivered at the Geography and Urban Planning Department, University of Toronto, April 8th 2025
2024	Workshop "Um Curso Prático Sobre Acessibilidade Urbana em R", at the 38th ANPET Conference, UFSC , Florianopolis, Brazil, Scheduled to November 6th.
2024	Workshop on "{censobr}: Explorando o Censo Demográfico em R", at the 23rd Brazilian Conference on Population Studies – ABEP, Universidade de Brasilia, Brazil, 24th September 2024
2024	Workshop on "Urban Accessibility with R", as part of the course 'Get your dataset ready! Using R and GIS', delivered at the EIT Doctoral Training Network Annual Forum, in Gent (Belgium), 19th and 20th September 2024
2024	Workshop "A crash course on urban accessibility with R", at the 2024 World Symposium on Transport and Land Use Research (WSTLUR), Universidad de Los Andes, Bogota, Colombia
2024	Lecture and hands-on practice on "Analyzing transport accessibility equity with open source data and code". As part of the "Land Use and Transport Interaction (LUTI)" course for graduate students in the Department of Urban and Regional Planning and Geo-information Management at the University of Twente, Netherlands (May/2024)
2023	Workshop on Open Tools for Equitable and Sustainable Accessibility and Mobility Analysis, at the 12th International Conference on Geographic Information Science, Leeds University, UK

2022	Lecture on Transportation Equity at the Mobility Network Summer School: Planning More Equitable Transportation Systems, at Toronto University
2022	Workshop on "Introduction to urban accessibility: a practical guide with R", delivered to over 30 public officials of the Brazilian Ministry of Cities
2020	Tutor for the 'Changing Infrastructures' module within the 'Global Challenges in Transport' Executive Education program at the University of Oxford.

INVITED SPEAKER (selected)

Invited Keynote lectures

2025	Keynote speaker at MASTI – Mobility as a Service and Socio-Territorial Inequalities. University of Lisbon. Feb/2025. Lisbon Portugal.
2024	Keynote speaker at the annual AGILE conference, by the Association of Geographic Information Laboratories in Europe (AGILE) Sep/2024 in Glasgow UK
2023	Keynote speaker at the workshop 'Getting to services: Transport & accessibility'. OECD and European Commission
2023	Keynote speaker at 'UrbanSys2023: Transport, Smart Cities, Complexity and Urban Networks', a satellite at the Conference on Complex Systems 2023, Brazil
2022	Keynote Inaugural lecture, Graduate program in Transport Engineering at the Federal University of Rio de Janeiro (PET-COPPE / UFRJ), Brazil
2021	Keynote Inaugural lecture, Graduate program in Architecture and Urbanism at the Federal Fluminense University (UFF), Brazil
2020	Keynote speaker at the 34th Annual meeting of the Brazilian Association of Transportation Research and Education (ANPET)
2020	Keynote speaker at the UFRGS university, Brazil, 50th Anniversary of the Graduate Program in Urban Planning
2018	Keynote speaker at Transmilenio S.A., 8th International Congress on Mobility and Transportation, Colombia

Other invited lectures, and seminars

2025	SES Seminar Series. "Spatial Data Science for Urban Accessibility and Inclusive Cities", at Macmaster University (Apr/2025)
2025	John Bousfield Public Lecture Series "Advancing Urban Accessibility for Inclusive Cities", at the University of Toronto. (Apr/2025)
2024	Guest lecture as part of the "Transit Analytics" course for graduate students in the Department of Urban Studies and Planning (DUSP) at MIT (Dec/2024)

2024	Guest lecture as part of the "Urban Data" course for graduate students in the Department of Computer Science at Cornell University (Nov/2024)
2024	World Symposium on Transport & Land Use Research (WSTLUR). Workshop on urban accessibility modeling with R (Jun/24)
2024	Federal University of Rio de Janeiro (UFRJ), Brazil, Urban Planning Department (Mar/24)
2023	University of Exeter, UK, Computer Science department
2023	Inha University, South Korea, Asia Pacific School of Logistics, BK 21 Lecture series
2023	Insper and MIT, International Seminar 'Climate Resiliency and Low-carbon Accessibility'.
2023	University of Toronto, Canada, Mobilizing Justice, Second Annual Symposium
2023	UC Berkeley, USA, City & Regional Planning
2023	Ministry of Social Development (MDS), Brazil
2022	Panel discussion on Mobilizing Justice at the Nectar Conference, at Toronto University
2022	University of Tennessee, USA, UKT Geography & sustainability Colloquium Series
2022	Federal University of ABC (UFABC), Brazil, Territorial Planning Department
2022	University of Lisbon, Portugal, U-shift
2022	PUC Parana (PUCPR) University, Brazil, Transport Engineering
2021	MIT, USA, Senseable City Lab
2021	McGill, Canada, Adapting Urban Environments for the Future
2021	Center for Spatial Data Science, Chicago University
2021	Citizens Collective, Urban Inequalities seminar series, TU Delft
2021	Research-to-Practice Transit Symposium, University of Florida Transportation Institute
2021	Mapbox, USA
2021	Beyond Mapping, DigitalTransport4Africa
2021	New Development Bank
2021	INPE - National Institute for Space Research, Brazil
2021	USP University of São Paulo, Brazil, Transport Engineering webinar
2021	Transport unit for Latin America and the Caribbean, World Bank, USA
2021	Spatial Analytics + Data webinar series, New Castle and Liverpool Universities
2021	Instituto de Investigación y Formación en Administración Pública (IIFAP) at the University of Cordoba, Argentina
2020	University of Oxford, UK, Tutor for the 'Changing Infrastructures' module within the 'Global Challenges in Transport' Executive Education program
2020	Geographic Data Science Lab, University of Liverpool
2020	Annual meeting of the Brazilian National Association of Mayors (FNP) - Brazil
2020	UFPR – Federal University of Parana, Brazil, Simpósio de Transportes do Paraná
2020	UFPB – Federal University of Paraíba, Brazil, Economics Department
2020	University of Campinas, Unicamp, Brazil, Population Studies Center
2019	BHTrans transport agency, Brazil, Belo Horizonte Mobility Observatory.
2019	Federal University of Minas Gerais (UFMF), Brazil, Economics department - Cedeplar
2019	33th Annual meeting of the Brazilian Association of Transportation Research and Education (ANPET)
2019	K2, The Swedish Knowledge Centre for Public Transport, Lund - Sweden

2019	Chalmers University, Gothenburg - Sweden
2019	VREF, Mobilize Summit, Fortaleza - Brazil
2019	Annual meeting of the International Transport Forum (ITF), Germany, Leipzig
2018	University College London, UK, Socially Just Transport Doctoral Group
2018	VREF PhD students and young researchers workshop, Tanzinia
2018	BNDES – Brazilian Development Bank
2018	World Bank and WRI, Transforming Transportation, USA
2017	FGV University, CERI Center for Regulation and Infrastructure Studies, Brazil
2016	Lund University and K2 - The Swedish Knowledge Centre for Public Transport, Sweden
2016	University College London, Centre for Advanced Spatial Analysis (CASA), UK
2016	ITDP - The Institute for Transportation and Development Policy, Brazil
2016	University College London, UK, Socially Just Transport Doctoral Group
2009	University of Campinas, Unicamp, Brazil, Population Studies Center
2008	University of Brasilia (UnB), Brazil, Sociology Department

EXTERNAL SERVICE ACTIVITIES

2023-2028   Board member
Transport & Geography Commission
International Geographical Union

2023-Present Committee Member
National Consultative Committee on Urban Mobility
Brazilian Federal Government

2019-2022   Board member
Transportation Geography Specialty Group (TGSG)
American Association of Geographers (AAG)

FUNDING AND RESOURCES

- 2025-2026 – The Access to Opportunities Project, partnership with Google, who funded U$ 72,000 in API credit.
- 2024-2026 – Deserts of Social Protection, funded by the Brazilian Ministry of Social Development (R$ 230,400, approx. U$ 54,211).
- 2022-2024 – Detailed administrative data on Uber Trips (travel time and cost matrices, pickups and drop-offs) for Rio Metro area in 2019. Project collaboration with Uber.
- 2020-2022 – The Access to Opportunities Project, funded by the Brazilian Ministry of Regional Development (R$ 1,490,963, approx. U$ 350,000).
- 2017 - Lee Schipper Memorial Scholarship of U$8,210 conceded by the World Resources Institute (WRI) and the Volvo Research and Educational Foundations (VREF).
- 2017 - Travel Conference Grant, conceded by the Oxford University Brazilian Society.
- 2013-2017 - Capes Fellowship for PhD studies at Oxford University, UK
- 2006-2008 - Fapesp Fellowship for Master Degree at State University of Campinas (Unicamp)

- 2006-2006 - Capes visiting studentship at National University of Cordoba (UNC), Argentina
- 2003-2005 - CNPq Fellowship for undergraduate studies at University of Brasilia (UnB)

AWARDS AND PRIZES

- 2025 – Zephyr Foundation's Impactful Research Award for the R5 Ecosystem, including r5r and r5py.
- 2024 - Finalist of the Academic Jabuti Award with book "Introdução à acessibilidade urbana um guia prático em R."
- 2024 – Listed among top 2% cited scientists in the world in the Stanford and & Elsevier "Updated science-wide author databases of standardized citation indicators"
- 2023 – Listed among top 2% cited scientists in the world in the Stanford and & Elsevier "Updated science-wide author databases of standardized citation indicators"
- 2022 – Listed among top 2% cited scientists in the world in the Stanford and & Elsevier "Updated science-wide author databases of standardized citation indicators"
- 2022 - Finalist in the 2022 ITF Decarbonising Transport Award: Research category, by the International Transport Forum (ITF/OECD).
- 2021 – Listed among top 2% cited scientists in the world in the Stanford and & Elsevier "Updated science-wide author databases of standardized citation indicators"
- 2020 – Listed among top 2% cited scientists in the world in the Stanford and & Elsevier "Updated science-wide author databases of standardized citation indicators"
- 2020 - Honorable mention in the 2nd Annual Shiny Contest for the 'Accessibility Atlas', na online app to interactively explore the results of the Access to Opportunities Project.
- 2019 - Young Researcher of the Year Award by the International Transport Forum (ITF/OECD).
- 2019 - Best thesis award by the Transportation Geography Specialty Group of the American Association of Geographers (AAG).
- 2017 - Award of best group presentation 'Using microdata to identify capability challenges of the elderly in using public transport'. Award at the European Workshop "Bridging transport equity: a real-life lab", organized by the Transportation Equity Analysis (TEA) Cost Action group, in Barcelona. Team: Rafael Pereira, Claire Papaix, Koos Fransen and Anders Wretstrand.
- 2017 - Travel award to go the 2017 Annual Meeting of the American Association of Geographers (AAG), conceded by the AAG Transport Geography Specialty Group.
- 2016 - Best paper award of the V Oxbridge Conference on Brazilian Studies, Oxford and Cambridge Brazilian Societies.

EDITORIAL ACTIVITIES

Editorial Appointments

2025-Present   Editorial Advisory Board, *Social Science & Medicine*

2023-Present   Editorial Advisory Board, *Journal of Transport Geography*

2021-Present   Editorial Advisory Board, *Urban Findings* (Findings)

2022-Present   Editorial Advisory Board, *Planejamento e Políticas Públicas*

Guest Edited Special Issues

2023   Tenkanen, H. and Pereira, R. H. M. and Arcaute, E. and Gonzalez, M. (2023). [Advances in geospatial approaches to transport networks and sustainable mobility](#), in *Environment and Planning B: Urban Analytics and City.*

Forthcoming   McKenzie, G. and Calafiore, A. and Tenkanen, H. and Kim, E. and Pereira, R. H. M. Environmentally and socially sustainable mobility, in *Computers, Environment and Urban Systems*. (open call for papers)

ACADEMIC REVIEW ACTVITIES

- Journal of Transport Geography (20)
- Transport Research Part A: Policy and Practice (7)
- PPP – Planejamento e Políticas Públicas, Brazil (7)
- Transport Reviews (5)
- Cities (4)
- Journal of Transport and Land Use (4)
- Case Studies on Transport Policy (4)
- Transport Policy (3)
- Transportation Research Record (3)
- Computers, Environment and Urban Systems (2)
- Mobilities (2)
- Journal of Geographical Systems (2)
- REBEP – Revista Brasileira de Estudos de População, Brazil (2)
- Ecological indicators (1)
- Environment and Planning A: Economy and Space (1)
- Environment and Planning B: Urban Analytics and City Science (1)
- Geographical Analysis (1)
- Journal of Planning Literature (1)
- Journal of Transport & Health (1)
- Sustainable Cities and Society (1)
- Transport Findings (1)
- Transportes (1)
- Transport Research Part D: Transport and Environment (1)

STUDENT SUPERVISION

PhD Students
- *ongoing* - Ashley Vicary, Urban Planning, MIT
- *ongoing* - Luiz Silva, Economics, Federal University of Juiz de Fora
- *ongoing* - Kauê Braga, Transportation Engineering, Federal University of Fortaleza
- 2023 - André Turbay, Urban Planning, PUC Paraná

Master Students
- *2024* - Ruan Amaral, Transportation Engineering, Federal University of Pernambuco
- *2023* - João Lucas, Transportation Engineering, Federal University of Fortaleza
- 2021 - Shiv Yucel, Social Data Science, University of Oxford
- 2021 - Daniel Herszenhut, Transportation Engineering, Federal University of Rio de Janeiro
- 2020 - Kauê Braga, Transportation Engineering, Federal University of Fortaleza

Undergraduate Students
- *ongoing* - Davi Gressler, Physics and Urban Science, University of São Paulo + Exter UK

AFFILIATIONS

2019-	Latin American branch of the International Network for Transport and Accessibility in Low Income Communities (INTALInC LAC)
2017-18	Associate Postgrad, Oxford Urbanists Society
2016-17	Visiting PhD student, Fitzwilliam College, Cambridge University
2015-18	Associate Postgrad, Oxford Program for the Future of Cities
2015-	Member, American Association of Geographers (AAG)
2014-	Member, Royal Geographical Society (RGS-IBG)
2010-	Member, World Conference on Transport Research Society (WCTRS)
2009-	Member, Research 'Group Morphological Dimensions of the Urbanization Process', Research Group led by Prof. Frederico Holanda (University of Brasilia)
2008-	Member, Brazilian Association of Population Studies (ABEP)