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Last Update: Oct 28, 2026

RESEARCH INTERESTS
Urban freight, freight transportation, transport and land use, agent-based simulation, smart mobility, travel behavior analysis, transportation data collection

PROFESSIONAL EXPERIENCE
Tokyo University of Marine Science and Technology
Associate Professor, Department of Logistics and Information Engineering, April 2021 – Present

Singapore-MIT Alliance for Research and Technology (SMART), Singapore
MIT Intelligent Transportation Systems Lab (Supervisor: Prof. Ben-Akiva)
Research Associate/Postdoctoral Associate/Senior Postdoctoral Associate, June 2017 – February 2021

University of Illinois at Chicago, Illinois
Graduate Research Assistant, August 2013 – May 2017 (Supervisor: Prof. Kawamura)

ALMEC Corporation, Tokyo, Japan
Transportation Planner in Overseas Department, April 2008 – November 2012

EDUCATION
University of Illinois at Chicago – Chicago, Illinois
Doctor of Philosophy in Urban Planning and Policy, August 2013 – August 2017
Dissertation: "The Simulations of the Urban Logistics Land Use and Associated Logistics Chains for Policy Insights". Advisor: Prof. Kazuya Kawamura

Tokyo Institute of Technology – Tokyo, Japan
Master of Engineering in Built Environment, April 2006 – March 2008
Major in Transportation Engineering and Planning. Advisor: Prof. Tetsuo Yai

University of California, Irvine – Irvine, California
Education Abroad Program (Non-degree)
Graduate Program in Civil and Environmental Engineering, September 2006 – June 2007

Tokyo Institute of Technology – Tokyo, Japan
Bachelor of Engineering in Civil Engineering, April 2002 – March 2006

OTHER TRAINING
French Institute of Science and Technology for Transport, Spatial Planning, Development and Networks (IFSTTAR) in the University of Paris-East – Paris, France
Visiting Scholar at SPLOTT (Production Systems, Logistics, Transport Organization and Work), Sept – Oct 2015

Tokyo University of Marine Science and Technology – Tokyo, Japan
Visiting Scholar at Regional Planning Laboratory, the Department of Logistics and Information Engineering, Aug – Sep 2015

Kyoto University – Kyoto, Japan
Visiting Scholar at Taniguchi Laboratory (in Graduate School of Engineering, Department of Urban Management), Dec 2013 – Jan 2014

PEER-REVIEWED PUBLICATIONS

1) Yuichiro Tanaka, **Takanori Sakai**, Tetsuro Hyodo, Ryota Kodera. (2026). Development of an urban typology framework for supporting sustainable freight planning: A case of Japanese municipalities. *Journal of Transport Geography*, 137, 104839. https://doi.org/10.1016/j.jtrangeo.2026.104839

2) **Takanori Sakai**, Bram Kin, Heleen Buldeo Rai, Alison Conway, Lynette Cheah, Giacomo Dalla Chiara, Walther Ploos van Amstel. (2026). Diversity in the evolution of last-mile deliveries: Interactions between e-commerce growth, urban development, planning, and the delivery service market. *Case Studies on Transport Policy*, 25, 101845. https://doi.org/10.1016/j.cstp.2026.101845

3) Julia Amaral, José Holguín-Veras, Matthew J Roorda, Abel Kebede Reda, Mathieu Gardrat, Leise Kelli de Oliveira, Elias S Goodrich, Oriana Calderón, Carlos Gonzalez-Calderon, Tho V Le, Jesus Gonzalez-Feliu, Usman Ahmed, Ivan Sanchez-Diaz, Prasanta K Sahu, **Takanori Sakai**, Abdelrahman Ismael, Diana Ramirez-Rios, Elise Capersen, José Luis Moura, Luigi Dell'Olio, Maira Delgado-Lindeman, Martin Ruesch, Paolo Todesco. (2026). Freight trip generation in metropolitan areas: an international perspective. *Transportation Research Part A: Policy and Practice*, 204, 104847. https://doi.org/10.1016/j.tra.2025.104847

4) Zuopeng Xiao, Xiangyu Du, **Takanori Sakai**. (2025). Locating in informally-developed spaces: Disentangling the spatial preferences of e-commerce logistics microhubs. *Journal of Transport Geography* 127, 104287. https://doi.org/10.1016/j.jtrangeo.2025.104287

5) Ryota Kodera, **Takanori Sakai**, Tetsuro Hyodo. (2025). Development of a Delivery Time-Period Selection Model for Urban Freight Using GPS Data. *Smart Cities*, 8(1), 31. https://doi.org/10.3390/smartcities8010031

6) Tetsuro Hyodo, **Takanori Sakai**, Takashi Yamamoto. (2025). Development of Value Flow Calibration Method Combining Two Transportation Census Data. *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)*, Vol. 80, No. 20, Paper ID: 24-20006. (in Japanese). https://doi.org/10.2208/jscejj.24-20006

   [兵藤哲朗，坂井孝典，山本隆. (2025). 2 つの交通センサスデータを組み合わせた Value Flow 推計方法の開発．土木学会論文集 D3. 80 巻 20 号 論文 ID: 24-20006.]

7) Yusei Onuma, **Takanori Sakai**, Tetsuro Hyodo. (2024). Does proximity to MRT stations affect online shopping use? An analysis using data from Japan and New York. *Urban Science*, 8(4), 154. https://doi.org/10.3390/urbansci8040154

8) Riki Motojima, **Takanori Sakai**, Tetsuro Hyodo. (2024). Development of an Online Daily Goods Shopping Demand Model using Internet-Based Consumption Behavior Survey Data. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/03611981241270172

9) **Takanori Sakai**, Kohei Santo, Shinya Tanaka, Tetsuro Hyodo. (2024). Locations of Logistics Facilities for E-commerce: a Case of the Tokyo Metropolitan Area. *Research in Transportation Business & Management*. Volume 56, 101174. https://doi.org/10.1016/j.rtbm.2024.101174

10) Peiyu Jing, Ravi Seshadri, **Takanori Sakai**, Ali Shamshiripour, Andre Romano Alho, Antonios Lentzakis, Moshe E. Ben-Akiva. (2024). Evaluating Congestion Pricing Schemes Using Agent-Based Passenger and Freight Microsimulation. *Transportation Research Part A: Policy and Practice*, 186, 104118. https://doi.org/10.1016/j.tra.2024.104118

11) **Takanori Sakai**, Virgilio Ma. Ramos Jr., Tetsuro Hyodo. (2024). The Relationship between the Spatial Distribution of Mega-Scale Logistics Facilities and the Associated Freight Traffic. *Transportation Research Procedia*, 79, 273-280. https://doi.org/10.1016/j.trpro.2024.03.037

12) Yurika Takano, **Takanori Sakai**, Tetsuro Hyodo. (2024). The Evolution of Urban Freight Generation: a Study of Intra- and Inter-City Truck Trips. *Transportation Research Procedia*, 79, 393-400. https://doi.org/10.1016/j.trpro.2024.03.052

13) Natsuho Aruga, Tetsuro Hyodo, **Takanori Sakai**. (2024). Evaluation of Parking Demand Dispersion Measures for Highway SA & PA. *JSTE Journal of Traffic Engineering*. 10(1), A_49-A_57. (in Japanese)

[有賀なつほ，兵藤哲朗，坂井孝典. (2024). シミュレーターを用いた高速道路 SA/PA の駐車需要分散施策の評価. 交通工学論文集，10(1)，A_49-A_57.]

14) Daisuke Watanabe, Terumitsu Hirata, **Takanori Sakai**, Toshinori Nemoto, Tetsuro Hyodo. (2023). Research on the Development of Logistics Hubs for the Deployment of Truck Platooning and Automated Heavy Vehicles on Highway. *Journal of the Japan Logistics Society* (31), 57-64, 2023-06. (in Japanese)

[渡部大輔，平田輝満，坂井孝典，根本敏則，兵藤哲朗. (2023). 高速道路におけるトラック隊列走行・自動運転に対応した物流拠点の整備に関する研究. 日本物流学会誌 (31)，57-64，2023-06.]

15) Ryuma Tohtomi, Shogo Nishizaki, Tetsuro Hyodo, **Takanori Sakai**. (2023). Safety Evaluation of Highway Merging with Double Trailer Trucks and Truck Platooning Using Reinforcement Learning. *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management).* Volume 78, No. 5, pp. I_809-I_824. (in Japanese)

[東富隆馬，西崎省吾，兵藤哲朗，坂井孝典. (2023). 強化学習を用いた長大車の高速道路合流箇所の安全性評価. 土木学会論文集 D3. 78 巻 5 号 p. I_809-I_824.]

16) Heleen Buldeo Rai, Sanggyun Kang, **Takanori Sakai**, Carla Tejada, Quan (Jack) Yuan, Alison Conway, Laetitia Dablanc. (2022). 'Proximity Logistics': Characterizing the Development of Logistics Facilities in Dense, Mixed-use Urban Areas around the World. *Transportation Research Part A*. Volume 166, 41-61. https://doi.org/10.1016/j.tra.2022.10.007

17) **Takanori Sakai**, Yusuke Hara, Ravi Seshadri, Andre Romano Alho, Md Sami Hasnine, Peiyu Jing, ZhiYuan Chua, Moshe Ben-Akiva. (2022). Household-based E-commerce Demand Modeling for an Agent-based Urban Transportation Simulation Platform. *Transportation Planning and Technology*. Volume 45, Issue 2, 179-201. https://doi.org/10.1080/03081060.2022.2084397

18) Rakhi Manohar Mepparambath, Lynette Cheah, P. Christopher Zegras, Andre Alho, **Takanori Sakai**. (2022). Evaluating the Impact of Urban Consolidation Center and Off-Hour Deliveries on Freight Flows to a Retail District Using Agent-Based Simulation. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/03611981221092385

19) Yusuke Hara, **Takanori Sakai**, André Romano Alho, Moshe Ben-Akiva. (2022). Screenline-Based Two-Step Calibration and its Application to an Agent-Based Urban Freight Simulator. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/03611981221082562

20) Andre Alho, Cheng Cheng, Dao Trung Hieu, **Takanori Sakai**, Fang Zhao, Moshe Ben-Akiva, Lynette Cheah. (2022). Online and in-person activity logging using a smartphone-based travel, activity, and time-use survey. *Transportation Research Interdisciplinary Perspectives*. Volume 13, 100524. https://doi.org/10.1016/j.trip.2021.100524

21) André Romano Alho, Simon Oh, Ravi Seshadri, Giacomo Dalla Chiara, Wen Han Chong, **Takanori Sakai**, Lynette Cheah, Moshe Ben-Akiva. (2022). An Agent-based Simulation Assessment of Freight Parking Demand Management Strategies for Large Urban Freight Generators. *Research in Transportation Business & Management*. https://doi.org/10.1016/j.rtbm.2022.100804

22) Karina Hermawan, Ravi Seshadri, **Takanori Sakai**, P. Christopher Zegras, Moshe Ben-Akiva. (2022) Impact of Automated Mobility-On-Demand on Weekly Activity Patterns: A Study of Singapore. Accepted by *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/03611981221074376

23) André Alho**, Takanori Sakai**, Simon Oh, Cheng Cheng, Ravi Seshadri, Wen Han Chong, Yusuke Hara, Julia Caravias, Lynette Cheah, Moshe Ben-Akiva. (2021). A Simulation-Based Evaluation of a Cargo-Hitching Service for E-Commerce Using Mobility-on-Demand Vehicles. *Future Transportation*. 1(3), 639-656. https://doi.org/10.3390/futuretransp1030034

24) Cheng Cheng, **Takanori Sakai**, André Alho, Lynette Cheah, Moshe Ben-Akiva. (2021). Exploring the Relationship between Locational and Household Characteristics and E-commerce Home Delivery Demand. *Logistics*. 2021, 5(2), 29. https://doi.org/10.3390/logistics5020029

25) André Romano Alho, **Takanori Sakai**, Ming Hong Chua, Max Raven, Yusuke Hara, Moshe Ben-Akiva. (2021). Assessing the Reproducibility of Freight Vehicle Flows using Tour and Trip-based Models for Shipment-to-Vehicle Flow Conversion. *Simulation Modelling Practice and Theory*. Volume 107, 102207. https://doi.org/10.1016/j.simpat.2020.102207

26) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2020). Logistics Facilities for Intra and Inter-regional Shipping: Spatial Distributions, Location Choice Factors, and Externality. *Journal of Transport Geography*. Volume 86, 102783. https://doi.org/10.1016/j.jtrangeo.2020.102783

27) **Takanori Sakai**, André Alho, Bhavathrathan B. K., Giacomo Dalla Chiara, Raja Gopalakrishnan, Peiyu Jing, Tetsuro Hyodo, Lynette Cheah, Moshe Ben-Akiva. (2020). SimMobility Freight: An Agent-Based Urban Freight Simulator for Evaluating Logistics Solutions. *Transportation Research Part E: Logistics and Transportation Review*. Volume 141, 102017. https://doi.org/10.1016/j.tre.2020.102017

28) **Takanori Sakai**, Adrien Beziat, Adeline Heitz. (2020). Location Factors for Logistics Facilities: Location Choice Modeling Considering Activity Categories. *Journal of Transport Geography*. Volume 85, 102710. https://doi.org/10.1016/j.jtrangeo.2020.102710

29) **Takanori Sakai**, André Alho, Tetsuro Hyodo, Moshe Ben-Akiva. (2020). Empirical Shipment Size Model for Urban Freight and Its Implications. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/0361198120914890

30) Raja Gopalakrishnan, André Romano Alho, **Takanori Sakai**, Yusuke Hara, Lynette Cheah, Moshe Ben-Akiva. (2020). Assessing Overnight Parking Infrastructure Policies for Commercial Vehicles in Cities Using Agent-based Simulation. *Sustainability*, Volume 12, No. 7, 2673. https://doi.org/10.3390/su12072673

31) **Takanori Sakai**, Bhavathathran B. K., André Romano Alho, Tetsuro Hyodo, Moshe Ben-Akiva. (2020). Commodity Flow Estimation for a Metropolitan Scale Freight Modeling System: Supplier Selection Considering Distribution Channel Using an Error Component Logit Mixture Model. *Transportation*, Volume 47, pp. 997-1025. https://doi.org/10.1007/s11116-018-9932-1

32) Andre Romano Alho, **Takanori Sakai**, Ming Hong Chua, Kyungsoo Jeong, Peiyu Jing, Moshe Ben-Akiva. (2019). Exploring Algorithms for Revealing Freight Vehicle Tours, Tour-Types, and Tour-Chain-Types from GPS Vehicle Traces and Stop Activity Data. *Journal of Big Data Analytics in Transportation*, 1, pp. 175-190. https://doi.org/10.1007/s42421-019-00011-x

33) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2019). Evaluation of the Spatial Pattern of Logistics Facilities using Urban Logistics Land-use and Traffic Simulator. *Journal of Transport Geography*, Volume 74, pp. 145-160. https://doi.org/10.1016/j.jtrangeo.2018.10.011

34) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2018). The Relationship between Commodity Types, Spatial Characteristics, and Distance Optimality of Logistics Facilities. *Journal of Transport and Land Use*, Volume 11, No. 1, pp. 575-591. http://dx.doi.org/10.5198/jtlu.2018.1363

35) **Takanori Sakai**, Adrien Beziat, Adeline Heitz, Laetitia Dablanc. (2018). Testing the 'Freight Landscape' Concept for Paris. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/0361198118776783

36) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2017). Spatial Reorganization of Urban Logistics Systems and Its Impacts: Case of Tokyo. *Journal of Transport Geography,* Volume 60, pp. 110-118. https://doi.org/10.1016/j.jtrangeo.2017.03.001

37) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2017). Logistics Chain Modeling for Urban Freight: Pairing Truck Trip Ends with Logistics Facilities. *Transportation Research Record: Journal of the Transportation Research Board,* Volume 2609, Issue 1, pp. 55-66. https://doi.org/10.3141/2609-07

38) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2016). Logistics Facility Distribution in Tokyo Metropolitan Area: Experiences and Policy Lessons. *Transportation Research Procedia*, Volume 12, pp. 263–277. https://doi.org/10.1016/j.trpro.2016.02.064

39) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2015). Locational Dynamics of Logistics Facilities: Evidence from Tokyo. *Journal of Transport Geography*, Volume 46, pp. 10-19. https://doi.org/10.1016/j.jtrangeo.2015.05.003

40) Tetsuro Hyodo, **Takanori Sakai**, Kazuya Kawamura. (2015). Analysis of Logistics Facility Location Choice in the Tokyo Metropolitan Area using Discrete Choice Models with Spatial Correlation. *Journal of the Japan Society of Civil Engineers*, Division D, Volume 71, No. 4, pp. 156-167. https://doi.org/10.2208/jscejipm.71.156

41) **Takanori Sakai**, Tetsuo Yai. (2009). The Study for Securing Rationality in Plan-Decision Making. *Journal of the Japan Society of Civil Engineers*, Division D, Volume 65, No. 2, pp. 111-128. (in Japanese)

42) Chunyan Shan, Tetsuo Yai, **Takanori Sakai**. (2007). Citizens' Evaluation of Road Planning Process: Case Study of Yokohama North-West Corridor. *Journal of the Eastern Asia Society for Transportation Studies*, Volume 7, pp. 283-298.

BOOK / BOOK CHAPTERS

1) **Takanori Sakai**. (2025). Last-mile delivery. In *Elgar Encyclopedia of Transport and Society* (pp. 220-221). Edward Elgar Publishing. https://doi.org/10.4337/9781035330522-00114

2) Tetsurō Hyōdō, Toshinori Nemoto, Nobu Inaniwa, Tomo Kagabu, Takao Gotō, **Takanori Sakai**, Kanako Sakano, Hajime Tanabe, Yōhei Nishimine, Terumitsu Hirata, Yūki Misui, Takashi Yamamoto, & Daisuke Watanabe. (2024). *Truck transport innovation that resolves the logistics crisis* [トラック輸送イノベーションが解決する物流危機]. Seizandō Shoten.

3) **Takanori Sakai**, Peiyu Jing, André Romano Alho, Ravi Seshadri, and Moshe Ben-Akiva. (2023). 'Evaluating city logistics solutions with agent-based microsimulation', in Edoardo Marcucci, Valerio Gatta, Michela Le Pira (ed.) ***Handbook on City Logistics and Urban Freight***. Edward Elgar. https://doi.org/10.4337/9781800370173.00013

4) André Romano Alho, **Takanori Sakai**, Giacomo Dalla Chiara. (2023). 'New urban freight developments and land use', in João de Abreu e Silva, Kristina M. Currans, Veronique Van Acker, Robert J. Schneider (ed.) ***Handbook on Transport and Land Use***. Edward Elgar. https://doi.org/10.4337/9781800370258.00030

5) **Takanori Sakai**, Adrien Beziat, Adeline Heitz. (2023). 'Facility Locations in Urban Logistics', in Jason Monios, Lucy Budd, Stephen Ison (ed.) ***The Routledge Handbook of Urban Logistics***. Routledge. https://doi.org/10.4324/9781003241478

6) André Romano Alho, **Takanori Sakai**, Fang Zhao, Linlin You, Peiyu Jing, Lynette Cheah, Chris Zegras, Moshe Ben-Akiva. (2021). 'Laboratories for Freight Research', in Shi, W., Goodchild, M., Batty, M. and Kwan, M.P. (ed.) ***Urban Informatics***. Springer. https://doi.org/10.1007/978-981-15-8983-6

PEER-REVIEWED CONFERENCE PROCEEDINGS

1) **Takanori Sakai**, Adrien Beziat, Adeline Heitz. (2019). Modelling Logistics Facility Location Decisions: An Analysis for the Paris Region. *In the Proceedings of the 11th International Conference on City Logistics.* Dubrovnik, Croatia.

2) **Takanori Sakai**, André Alho, Tetsuro Hyodo, Moshe Ben-Akiva. (2019). An Empirical Shipment Size Model for Urban Freight. *In the Proceedings of the 11th International Conference on City Logistics.* Dubrovnik, Croatia.

3) Kazuya Kawamura, **Takanori Sakai**, Tetsuro Hyodo. (2019). Factors Affecting the Efficiency of Truck Usage and Implications for Logistics Sprawl: A Disaggregate Analysis. *In the Proceedings of the 11th International Conference on City Logistics.* Dubrovnik, Croatia.

4) André Romano Alho, **Takanori Sakai**, Ming Hong Chua, Max Raven, Yusuke Hara, Moshe Ben-Akiva. (2019). The Influence of Tour-Formation Assumptions on the Reproducibility of Freight Vehicle Flows. *In the Proceedings of the 11th International Conference on City Logistics.* Dubrovnik, Croatia.

5) Raja Gopalakrishnan, Andre Romano Alho, **Takanori Sakai**, Lynette Cheah, Moshe Ben-Akiva. (2019). Assessing Overnight Parking Infrastructure Policies for Commercial Vehicles in Cities Using Agent-based Simulation. *In the Proceedings of the 11th International Conference on City Logistics.* Dubrovnik, Croatia.

6) **Takanori Sakai**, Adrien Beziat, Adeline Heitz, Laetitia Dablanc. Testing the 'Freight Landscape' Concept for Paris. (2018). *In the Proceedings of the 97th Annual Meeting of the Transportation Research Board*. Washington D.C. (Received 2018 Best Paper Award in TRB Urban Freight Transportation Committee)

7) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2017). Logistics Chain Modeling for Urban Freight: Pairing Truck Trip Ends with Logistics Facilities. *In the Proceedings of the 96th Annual Meeting of the Transportation Research Board*. Washington D.C. (Received 2017 Best Paper Award in TRB Urban Freight Transportation Committee)

8) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2017). Spatial Characteristics and Efficiency of Logistics Facilities: Lessons from Tokyo. *In the Proceedings of the 10th International Conference on City Logistics.* Phuket, Thailand.

9) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2016). Location Choice Models of Urban Logistics Facilities and the Impact of Zoning on their Spatial Distribution and Efficiency. *In the Proceedings of the 95th Annual Meeting of the Transportation Research Board*. Washington D.C.

10) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. (2015). Urban Freight Survey Sampling: Challenges and Strategies. *In the Proceedings of the 94th Annual Meeting of the Transportation Research Board*. Washington D.C.

11) Chunyan Shan, Tetsuo Yai, **Takanori Sakai**. (2007). Evalution of Road Planning Process: Case Study of Yokohama North-West Corridor, *In the Proceedings of the Eastern Asia Society for Transportation Studies*. Vol. 6, 2007.

CONFERENCE PRESENTATIONS

1) Mari Yamauchi, Tetsuro Hyodo, **Takanori Sakai**. "An 18-year trend analysis using the Survey of Motor Vehicle Fuel Consumption", the 46th Annual Conference of Traffic Engineering, Tokyo, Japan, August 2026. (in Japanese)
[山内茉莉，兵藤哲朗，坂井孝典．自動車燃料消費量調査を用いた 18 年間の傾向分析．第 46 回交通工学研究発表会，東京，日本，2026 年 8 月.]

2) Ryota Kodera, Joris Beckers, **Takanori Sakai**. "Simulation-based evaluation of the impact of Logistics as a Service on last-mile parcel deliveries", NECTAR Conference '26, Munich, Germany, July 13–15, 2026.

3) Julia Amaral, José Holguín-Veras, Matthew J. Roorda, Abel Kebede Reda, Mathieu Gardrat, Leise Kelli de Oliveira, Elias S. Goodrich, Oriana Calderón, Carlos Gonzalez-Calderon, Tho V. Le, Jesus Gonzalez-Feliu, Usman Ahmed, Ivan Sanchez-Diaz, Prasanta K. Sahu, **Takanori Sakai**, Abdelrahman Ismael, Diana Ramirez-Rios, Elise Caspersen, José Luis Moura, Luigi Dell'Olio, Maira Delgado-Lindeman, Martin Ruesch, Paolo Todesco. "Freight trip generation in metropolitan areas: An international perspective", the 17th World Conference on Transport Research, Toulouse, France, July 6–10, 2026.

4) Aaron Michael Salang, **Takanori Sakai**, Yumi Hazenoki, Ryota Kodera, Hideki Oka, Tetsuro Hyodo. "Evaluating off-hour delivery policy using an agent-based freight model", the 17th World Conference on Transport Research, Toulouse, France, July 6-10, 2026.

5) Yuichiro Tanaka, **Takanori Sakai**, Tetsuro Hyodo, Ryota Kodera. "Development of an urban typology framework for supporting sustainable freight planning: A case of Japanese municipalities", the 17th World Conference on Transport Research, Toulouse, France, July 6-10, 2026.

6) Mika Taniguchi, **Takanori Sakai**, Tetsuro Hyodo, Azuki Watanabe. "Development of urban freight vehicle parking duration models using survival analysis", the 17th World Conference on Transport Research, Toulouse, France, July 6-10, 2026.

7) **Takanori Sakai**, Bram Kin, Heleen Buldeo Rai, Alison Conway, Lynette Cheah, Giacomo Dalla Chiara, Walther Ploos van Amstel. "Diversity in the evolution of last mile deliveries: The interactions between the e-commerce growth and urban development, planning and delivery service market", the 17th World Conference on Transport Research, Toulouse, France, July 6-10, 2026.

8) Virgilio Ma. Ramos Jr., Azuki Watanabe, Dean Jasper Tolentino, **Takanori Sakai**, Tetsuro Hyodo. "Study of the impact of the spatial distribution of fulfillment centers on e-commerce demand-driven freight", 11th International Conference on Transport and Logistics (T-LOG 2026), Shenzhen, China, June 27–29, 2026.

9) Fuga Mayuzumi, Hideki Oka, Motoki Takai, Kota Miyauchi, Takeshi Kenmochi, Shota Kawakami, Yasukatsu Hagino, Ryuta Nishi, Tetsuya Ashida, Kotaro Kuroe, **Takanori Sakai**. "TOKYO-FREIGHTSIM: An integrated urban freight simulation framework for B2B and B2C demand with network assignment", 11th International Conference on Transport and Logistics (T-LOG 2026), Shenzhen, China, June 27–29, 2026.

10) Daichi Fukuda, **Takanori Sakai**, Ryota Kodera, Tetsuro Hyodo, Hideki Oka. "Delivery time-period choice modeling considering time-of-day network performance", the 7th Green Cities Conference, Szczecin, Poland, April 15-17, 2026.

11) Riku Matsuda, **Takanori Sakai**, Tetsuro Hyodo. "An empirical study of last-mile delivery modes and mode choice modeling", the 7th Green Cities Conference, Szczecin, Poland, April 15-17, 2026.

12) Yumi Hazenoki, Yuri Sakamoto, **Takanori Sakai**, Tetsuro Hyodo. "In-depth analysis of urban freight trip generation: a modeling approach using GPS data", the 29th International Conference of Hong Kong Society for Transportation Studies, Hong Kong, China, December 8-9, 2025.

13) Shinya Tanaka, Yuki Hirabayashi, **Takanori Sakai**, Tetsuro Hyodo. "Development of a transhippment logistics facility section model for an agent-based urban freight simulator", the 29th International Conference of Hong Kong Society for Transportation Studies, Hong Kong, China, December 8-9, 2025.

14) Ryota Kodera, **Takanori Sakai**, Tetsuro Hyodo. "Modeling Delivery Time Selection for Intra-City Shipments Using GPS Data", the 13th International Conference on City Logistics, Penang, Malaysia, June 11-13, 2025.

15) Virgilio Ma. Ramos Jr., Azuki Watanabe, **Takanori Sakai**, Tetsuro Hyodo. "Study of the impact of last-mile facility deployment on e-commerce driven freight", the 13th International Conference on City Logistics, Penang, Malaysia, June 11-13, 2025.

16) Masahiro Kawasaki, **Takanori Sakai**, Tetsuro Hyodo. "How did the advent of large-scale for-lease logistics facilities change land use? The case of Tokyo considering the role of e-commerce", the 13th International Conference on City Logistics, Penang, Malaysia, June 11-13, 2025.

17) Julia Amaral, José Holguín-Veras, Matthew J. Roorda, Abel Kebede Reda, Mathieu Gardrat, Leise Kelli de Oliveira, Eli Goodrich, Oriana Calderon, Carlos Gonzalez-Calderon, Tho V. Le, Jesus Gonzalez-Feliu, Usman Ahmed, Ivan Sanchez-Diaz, Prasanta K. Sahu, **Takanori Sakai**, Abdelrahman Ismael, Diana Ramirez-Rios, Elise Capersen, José Luis Moura, Luigi Dell'Olio, Maira Delgado-Lindeman, Martin Ruesch, Paolo Todesco. "Freight trip generation in metropolitan areas: An international perspective", the 104th Annual Meeting of the Transportation Research Board, Washington D.C., January 5-9, 2025.

18) Aaron Michael Salang, **Takanori Sakai**, Tetsuro Hyodo, Joseph Chow. "A Synthesis of Agent-Based Urban Freight Simulation Models: State of the Art, Challenges and Future Directions", the 104th Annual Meeting of the Transportation Research Board, Washington D.C., January 5-9, 2025.

19) Yumi Hazenoki, **Takanori Sakai**, Hideki Oka, Tetsuro Hyodo. “Unveiling heterogeneity of urban goods vehicles’ route choice behavior: Analysis using GPS data from the Tokyo Metropolitan Area”, the 28th International Conference of Hong Kong Society for Transportation Studies, Hong Kong, China, December 9-10, 2024.

20) Koki Komori, Terumitsu Hirata, **Takanori Sakai**. “Study on the roles of logistics facilities in the hinterland of metropolitan areas using simulation model”, the 70th Annual Meeting of Civil Engineering and Planning, Fall Meeting, Okayama, Japan, November 15-17, 2024. (in Japanese)

[小森広己，平田輝満，坂井孝典．シミュレーションモデルを用いた大都市圏後背地における物流施設が果たす役割に関する研究．第 70 回土木計画学研究発表会･秋大会，岡山，日本，2024 年 11 月 15 日～17 日.]

21) Ayaka Kawamura, Makoto Ozaki, Tomoya Kawasaki, **Takanori Sakai**, Daisuke Fukuda. “Development of a model for selecting relay logistics facilities in the Tokyo metropolitan area”, the 70th Annual Meeting of Civil Engineering and Planning, Fall Meeting, Okayama, Japan, November 15-17, 2024. (in Japanese)

[川村綺佳，尾崎誠，川崎智也，坂井孝典，福田大輔．東京都市圏における中継物流施設選択モデルの構築．第 70 回土木計画学研究発表会･秋大会，岡山，日本，2024 年 11 月 15 日～17 日.]

22) Yuki Hirabayashi, **Takanori Sakai**, Shinya Tanaka, Tetsuro Hyodo. “Relationship between Last-mile Delivery Efficiency and Metropolitan Spatial Characteristics”, the 28th Pacific Conference of the RSAI, Daegu, South Korea, August 4-7, 2024.

23) Teturo Hyodo, **Takanori Sakai**, Takashi Yamamoto. “Development of Value Flow Calibration Method Combining Two Transportation Census Data”, the 69th Annual Meeting of Civil Engineering and Planning, Spring Meeting, Sapporo, May 25-26, 2024. (in Japanese)

[兵藤哲朗，坂井孝典，山本隆．2 つの交通センサスデータを組み合わせた Value Flow 推計手法の開発．第 69 回土木計画学研究発表会･春大会，北海道，日本，2024 年 5 月 25 日～26 日.]

24) Virgilio Ma Jr Ramos, **Takanori Sakai**, Riki Motojima, Tetsuro Hyodo. “Study of Household E-commerce Demand-driven Urban Freight Using an Agent-based Simulation Framework”, the 103th Annual Meeting of the Transportation Research Board, Washington D.C., January 7-11, 2024.

25) Yusai Onuma, **Takanori Sakai**, Tetsuro Hyodo. “A Covariance Structure Analysis on the Alternative Relationship between Shopping Trips and Online Shopping”, the 68th Annual Conference on Civil Engineering and Planning, Fall Meeting, Tokyo, Japan, November 25-27, 2023. (in Japanese)

[大沼祐犀，坂井孝典，兵藤哲朗．買い物トリップとオンラインショッピングの代替関係に関する共分散構造分析．第 68 回土木計画学研究発表会･秋大会，東京，日本，2023 年 11 月 25 日～27 日.]

26) Yuki Hirabayashi, **Takanori Sakai**, Shinya Tanaka, Tetsuro Hyodo. “A Study on Spatial Distribution of Last Mile Facilities in Urban Area”, the 68th Annual Conference on Civil Engineering and Planning, Fall Meeting, Tokyo, Japan, November 25-27, 2023. (in Japanese)

[平林佑基，坂井孝典，田中慎也，兵藤哲朗．ラストマイル施設の都市圏における空間分布に関する研究．第 68 回土木計画学研究発表会･秋大会，東京，日本，2023 年 11 月 25 日～27 日.]

27) Hsu Ya, Virgilio Ma Jr Ramos, Tetsuro Hyodo, **Takanori Sakai**. “Joint Modeling of Transport Mode and Shipment Size Choice for Inter-city Freight: a Case Study Using the Japan Commodity Flow Survey Data”, the 16th World Conference on Transport Research, Montreal, Canada, July 17-21, 2023.

28) **Takanori Sakai**, Kohei Santo, Shinya Tanaka, Tetsuro Hyodo. “Locations of logistics facilities for e-commerce: a case of the Tokyo Metropolitan Area”, the 16th World Conference on Transport Research, Montreal, Canada, July 17-21, 2023.

29) **Takanori Sakai**, Virgilio Ma. Jr. Ramos, Tetsuro Hyodo. “The Relationship between the Spatial Distribution of Mega-scale Logistics Facilities and the Associated Freight Traffic”, the 12th International Conference on City Logistics, Bordeaux, France, June 19-21, 2023.

30) Yurika Takano, **Takanori Sakai**, Tetsuro Hyodo. “The evolution of urban freight generation: a study of intra- and inter-city truck trips”, the 12th International Conference on City Logistics, Bordeaux, France, June 19-21, 2023.

31) Riki Motojima, **Takanori Sakai**, Tetsuro Hyodo. “Modeling household-based e-commerce daily goods demand: Case study in Japan”, the 12th International Conference on City Logistics, Bordeaux, France, June 19-21, 2023.

32) Shugo Nibe, **Takanori Sakai**, Tetsuro Hyodo. “Analysis of Freight Vehicle Tours in Tokyo Metropolitan Area Using Probe Data.”, the 67th Annual Meeting of Civil Engineering and Planning, Spring Meeting, Fukuoka, June 3-4, 2023. (in Japanese)

[新部秀悟，坂井孝典，兵藤哲朗．プローブデータを用いた東京都市圏における貨物車ツアー分析．第 67 回土木計画学研究発表会･春大会，福岡，2023 年 6 月 3 日～4 日.]

33) Shinya Tanaka, **Takanori Sakai**, Tetsuro Hyodo. “A Study on Location and Efficiency of Last-Mile Facilities in Home Delivery Business”, the 67th Annual Meeting of Civil Engineering and Planning, Spring Meeting, Fukuoka, June 3-4, 2023. (in Japanese)

[田中慎也，坂井孝典，兵藤哲朗．宅配事業におけるラストマイル施設の立地と効率性に関する研究．第 67 回土木計画学研究発表会･春大会，福岡，2023 年 6 月 3 日～4 日.]

34) Peiyu Jing, **Takanori Sakai**, Ali Shamshiripour, Ravi Seshadri, Andre Romano Alho, Antonis F. Lentzakis, Moshe Ben-Akiva. “Design and Evaluation of Future Urban Congestion Pricing Schemes with Agent-based Microsimulation” , the 102th Annual Meeting of the Transportation Research Board, Washington D.C., January 8-12, 2023.

35) Hsu Ya, **Takanori Sakai**, Tetsuro Hyodo. “A Joint Transport Mode and Shipment Size Model for Inter-city Freight: A Case Study using the Japan Commodity Flow Survey”, the 9th International Conference on Transportation & Logistics (T-LOG 2022), Incheon, Korea, September 19-21, 2022.

36) Daisuke Watanabe, Terumitsu Hirata, **Takanori Sakai**, Toshinori Nemoto, Tetsuro Hyodo. “A Study on Development of Logistics Bases for Trucks in Formation and Automatic Operation on Expressways”. the 39th National Convention of the Japan Society of Logistics, Nagoya, Japan, September 8-10, 2022. (in Japanese)

[渡部大輔，平田輝満，坂井孝典，根本敏則，兵藤哲朗．高速道路におけるトラック隊列走行･自動運転に対応した物流拠点の整備に関する研究．第 39 回日本物流学会全国大会，名古屋，日本，2022 年 9 月 8 日～10 日.]

37) Ryuma Totomi, Shogo Nishizaki, Tetsuro Hyodo, **Takanori Sakai**. “Safety Assessment of Freeway Merging Points for Long Vehicles Using Reinforcement Learning”. the 65th Annual Conference on Civil Engineering and Planning, Spring Meeting, online, June 4-5, 2022. (in Japanese)

[東富隆馬，西崎省伍，兵藤哲朗，坂井孝典．強化学習を用いた長大車の高速道路合流箇所の安全性評価．第 65 回土木計画学研究発表会･春大会，オンライン，2022 年 6 月 4 日～5 日.]

38) Iizuka, Shota, **Takanori Saka**i, Tetsuro Hyodo. “A Study on Online Shopping and Shopping Trip Selection Factors: An Analysis Using New York City Data under the Covid-19 Pandemic”, the 65th Annual Conference on Civil Engineering and Planning, Spring Meeting, online, June 4-5, 2022. (in Japanese)

[飯塚将太，坂井孝典，兵藤哲朗．オンラインショッピングと買い物トリップの選択要因に関する研究:コロナ禍のニューヨーク市データを用いた分析．第 65 回土木計画学研究発表会･春大会，オンライン，2022 年 6 月 4 日～5 日.]

39) Yuuki Konishi, Natsuho Aruga, **Takanori Sakai**, Tetsuro Hyodo. “Microsimulation Analysis for Evaluation of Expressway SA/PA Parking Lot Design”, the 65th Annual Conference on Civil Engineering and Planning, Spring Meeting, online, June 4-5, 2022. (in Japanese)

[小西優樹，有賀なつほ，坂井孝典，兵藤哲朗．高速道路 SA/PA 駐車場デザイン評価のためのマイクロシミュレーション分析．第 65 回土木計画学研究発表会･春大会，オンライン，2022 年 6 月 4 日～5 日.]

40) Heleen Buldeo Rai, Laetitia Dablanc, Sanggyun Kang, **Takanori Sakai**, Carla Tejada, Quan Yuan, Alison Conway. "Proximity Logistics: Characterizing the Development of Logistics Facilities in Dense Suburban Areas around the World", the 9th International Urban Freight Conference, Long Beach, California, May 25-27, 2022.

41) Karina Hermawan, Ravi Seshadri, **Takanori Sakai**, P. Christopher Zegras, Moshe Ben-Akiva. "Impacts of Automated Mobility-On-Demand on Weekly Activity Patterns: A Study of Singapore", the 101th Annual Meeting of the Transportation Research Board, Washington D.C., January 9-13, 2022.

42) Cheng Cheng, **Takanori Sakai**, André Alho, Lynette Cheah, Moshe Ben-Akiva. "Exploring the Relationship Between Locational and Household Characteristics and Online Shopping", the 100th Annual Meeting of the Transportation Research Board, Online, January, 2021.

43) Yusuke Hara, **Takanori Sakai**, André Alho, Moshe Ben-Akiva. "Calibration of Activity-based Freight Simulation Models: an Innovative Application to Freight Commodity and Vehicle Flows Relying on Traffic Screenline Counts", the 100th Annual Meeting of the Transportation Research Board, Online, January, 2021.

44) Rakhi Manohar Mepparambath, Lynette Cheah, P. Christopher Zegras, Andre Alho, **Takanori Sakai**. "Evaluating the Impact of an Urban Consolidation Centre and Off-Hour Deliveries on Freight Flows to a Retail District Using Agent-Based Simulation", the 100th Annual Meeting of the Transportation Research Board, Online, January, 2021.

45) **Takanori Sakai**, André Alho, Bhavathrathan B. K., Giacomo Dalla Chiara, Raja Gopalakrishnan, Peiyu Jing, Yusuke Hara, Tetsuro Hyodo, Lynette Cheah, Cheng Cheng, Fang Zhao, Moshe Ben-Akiva. "Agent-based Urban Freight Simulator for Evaluating Logistics Solutions - SimMobility Freight - and Data Collection Approach", The IEEE-Forum ISTS2020, Online/Delft, The Netherlands, November 3-5, 2020.

46) Cheng Cheng, **Takanori Sakai**, André Alho, Lynette Cheah, Moshe Ben-Akiva. "Exploring the Relationship between the Locational and Household Characteristics and Online Shopping", Bridging Transportation Sesearchers (BTR) Conference, Online, August 11-12, 2020.

47) **Takanori Sakai**, André Alho, Yusuke Hara, Moshe Ben-Akiva. "The Simulation of Logistics Planning for Shipment-to-Vehicle Tour Conversion in an Agent-based Urban Freight Modeling System", the 99th Annual Meeting of the Transportation Research Board, Washington D.C., January 12-16, 2020.

48) **Takanori Sakai**, André Alho, Tetsuro Hyodo, Moshe Ben-Akiva. "An Empirical Shipment Size Model for Urban Freight and Its Implications", the 99th Annual Meeting of the Transportation Research Board, Washington D.C., January 12-16, 2020.

49) Andre Romano Alho, **Takanori Sakai**, Ming Hong Chua, Max Raven, Yusuke Hara, Moshe Ben-Akiva. "The Influence of Tour-Formation Assumptions on the Reproducibility of Freight Vehicle Flows", the 99th Annual Meeting of the Transportation Research Board, Washington D.C., January 12-16, 2020.

50) Andre Romano Alho, **Takanori Sakai**, Simon Oh, Ravi Seshadri, Wen Han Chong, Julia Caravias, Lynette Cheah, Moshe Ben-Akiva. "Tapping into Mobility-On-Demand Spare Capacity to Move Parcels. How Much Freight Can be Moved? Are Passengers Affected?", the 3rd International Symposium on Multimodal Transportation, Singapore, December 6-7, 2019.

51) **Takanori Sakai**, André Alho, Bhavathrathan B. K., Lynette Cheah, Moshe Ben-Akiva. "SimMobility Freight: An Innovative Framework for Agent-based Urban Freight Modelling", the 26th ITS World Congress, Singapore, October 21-25, 2019.

52) **Takanori Sakai**, Adrien Beziat, Adeline Heitz. "Modelling Logistics Facility Location Decisions: An Analysis for the Paris Region", the 11th International Conference on City Logistics, Dubrovnik, Croatia, June 12-14, 2019.

53) **Takanori Sakai**, André Alho, Tetsuro Hyodo, Moshe Ben-Akiva. "An Empirical Shipment Size Model for Urban Freight", the 11th International Conference on City Logistics, Dubrovnik, Croatia, June 12-14, 2019.

54) Kazuya Kawamura, **Takanori Sakai**, Tetsuro Hyodo. "Factors Affecting the Efficiency of Truck Usage and Implications for Logistics Sprawl", the 11th International Conference on City Logistics, Dubrovnik, Croatia, June 12-14, 2019.

55) André Romano Alho, **Takanori Sakai**, Ming Hong Chua, Max Raven, Yusuke Hara, Moshe Ben-Akiva. "The Influence of Tour-formation Assumptions on the Reproducibility of Freight Vehicle Flows", the 11th International Conference on City Logistics, Dubrovnik, Croatia, June 12-14, 2019.

56) Raja Gopalakrishnan, Andre Romano Alho, **Takanori Sakai**, Lynette Cheah, Moshe Ben-Akiva. "Assessing Overnight Parking Infrastructure Policies for Commercial Vehicles in Cities Using Agent-based Simulation", the 11th International Conference on City Logistics, Dubrovnik, Croatia, June 12-14, 2019.

57) **Takanori Sakai**, André Alho, Bhavathrathan B. K., Giacomo Dalla Chiara, Raja Gopalakrishnan, Peiyu Jing, Tetsuro Hyodo, Lynette Cheah, Moshe Ben-Akiva. "Modeling Freight in SimMobility, A Multi-scale Agent-based Urban Simulation Platform", World Conference on Transport Research - WCTR 2019, Mumbai, India, May 26-31, 2019.

58) **Takanori Sakai**, Bhavathathran B. K., André Romano Alho, Tetsuro Hyodo, Moshe Ben-Akiva. "Modeling Freight Generation, Commodity Contracts, and Shipments for SimMobility Freight – A Disaggregate Agent-Based Urban Freight Simulator", the 98th Annual Meeting of the Transportation Research Board, Washington D.C., January 13-17, 2019.

59) André Romano Alho, **Takanori Sakai**, Kyungsoo Jeong, Bhavathathran B. K., Moshe Ben-Akiva. "Revealing Freight Vehicle Tours and Tour Patterns from GPS Vehicle Tracking and Driver Survey Data", the 7th International Conference on Innovative in Travel Modeling, Atlanta, Georgia, June 24-27, 2018.

60) André Romano Alho, **Takanori Sakai**, Bhavathathran B. K., Diem-Trinh Le, Moshe Ben-Akiva. "A Multi-Scale Agent-based Modelling Framework for Urban Freight Distribution", the 7th International Conference on Innovative in Travel Modeling, Atlanta, Georgia, June 24-27, 2018.

61) **Takanori Sakai**, Adrien Beziat, Adeline Heitz, Laetitia Dablanc. "Testing the 'Freight Landscape' Concept for Paris", the 97th Annual Meeting of the Transportation Research Board, Washington D.C., January 7-11, 2018.

62) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Spatial Characteristics and Efficiency of Logistics Facilities", the 97th Annual Meeting of the Transportation Research Board, Washington D.C., January 7-11, 2018.

63) **Takanori Sakai**, Bhavathrathan Bhattiyil Kuzhiyamkunnath, Andre Alho, Tetsuro Hyodo, Moshe Ben-Akiva. "Urban Freight Distribution considering Logistics Chain Structure: Selection of Supplier with Distribution Channel", the 97th Annual Meeting of the Transportation Research Board, Washington D.C., January 7-11, 2018.

64) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Spatial Characteristics and Efficiency of Logistics Facilities: Lessons from Tokyo", the 10th International Conference on City Logistics, Phuket, Thailand, June 14-16, 2017.

65) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Logistics Chain Modeling for Urban Freight: Pairing Truck Trip Ends with Logistics Facilities", the 96th Annual Meeting of the Transportation Research Board, Washington D.C., January 8-12, 2017.

66) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Landuse Regulations for Logistics: Policy Evaluation with Location Choice Models for the Tokyo Metropolitan Area", the 14th World Conference on Transport Research, Shanghai, China, July 10-15, 2016.

67) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Location Choice Models of Urban Logistics Facilities and the Impact of Zoning on their Spatial Distribution and Efficiency", the 95th Annual Meeting of the Transportation Research Board, Washington D.C., January 10-14, 2016.

68) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Impact of land-use regulations on logistics facility distribution", the 6th International Urban Freight Conference, Long Beach, California, October 21-23, 2015.

69) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Urban Freight Survey Strategy to Address Skewness in Freight Activity Variables", the 6th International Urban Freight Conference, Long Beach, California, October 21-23, 2015.

70) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Logistics Facility Distribution in Tokyo Metropolitan Area: Experiences and Policy Lessons", the 9th International Conference on City Logistics. Tenerife, Canary Islands, Spain, June 17-19, 2015.

71) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Urban Freight Survey Sampling: Challenges and Strategies", the 94th Annual Meeting of the Transportation Research Board, Washington D.C., January 11-15. 2015.

72) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Locational dynamics and efficiency of logistics facilities: evidence from Tokyo", ACSP 54th Annual Conference, Philadelphia, Pennsylvania, October 30 – November 2, 2014.

73) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Large-Scale Metropolitan Freight Surveys: Challenges and What Data Say about Them", Mid-Continent Transportation Research Symposium, Madison, Wisconsin, August 21-22, 2014.

74) **Takanori Sakai**, Kazuya Kawamura, Tetsuro Hyodo. "Findings from Tokyo Metropolitan Freight Survey: Reality of Goods Movement and Its Implications", Logistics, Trade and Transportation Symposium, Long Beach, Mississippi, February 26-27, 2014.

75) **Takanori Sakai**, Tetsuo Yai. "The Study for Securing Rationality in Plan-Decision Making", the 37th Conference on Infrastructure Planning and Management, Sapporo, Hokkaido, Japan, June 6-7, 2008. (in Japanese)

76) Chunyan Shan, Tetsuo Yai, **Takanori Sakai**. "Evaluation of Road Planning Process: Case Study of Yokohama North-West Corridor", the 7th International Conference of Eastern Asia Society for Transportation Studies, Dalian, China, September 24-27, 2007.

77) **Takanori Sakai**, Chunyan Shan, Tetsuo Yai. "Feasibility of Citizens Evaluation for Road Planning Process", the 34th Conference on Infrastructure Planning and Management, Takamatsu, Kagawa, Japan, December 1-3, 2006. (in Japanese)

INVIDED TALKS

1) **Takanori Sakai.** "Dynamics of urban logistics land use; Local context of last-mile delivery systems; Agent-based urban freight modeling", Urban Logistics Summer School, University of Antwerp, Belgium, July 2026.

2) **Takanori Sakai**. "Urban freight simulation and E-commerce", the 64th Annual Conference on Civil Engineering and Planning, Online, December 3, 2021 (in Japanese).

3) **Takanori Sakai**. "Agent-based freight simulation and its applications", Summer School of Behavior Modelling (organized by University of Tokyo), Online, September 18, 2021.

4) **Takanori Sakai**, André Alho, Peiyu Jing. "SimMobility Freight: An Agent-Based Urban Freight Simulator for Evaluating Logistics Solutions", Travel Model Improvement Program (TMIP) Webinar - E-commerce Demand Analysis and Implementation in Urban/Regional Freight Transportation and Supply Chain Forecasting Models, October 29, 2020.

5) André Alho, **Takanori Sakai**, Simon Oh, Cheng Cheng, Ravi Seshadri, Wen Han Chong, Yusuke Hara, Julia Caravias, Lynette Cheah, Moshe Ben-Akiva. "Tapping into Autonomous Mobility-on-demand Spare Capacity to Move Parcels: How Much Freight Can be Moved? Are Passengers Affected?", Transportation Research Board 2020 Freight Day, January 12, 2020.

TEACHING EXPERIENCE

Tokyo University of Marine Science and Technology – Tokyo, Japan
undergrad

- LIE: Data Science, Instructor. (SS'2022-2026)
- LIE: Transportation Planning, Co-instructor. (SS'2021-2026)
- LIE: Logistics and Information Engineering Lab, Co-instructor. (SS'2021-2026)
- LIE: Infrastructure and Urban Planning for Logistics, Instructor. (FS'2021-2025**)**

grad

- MTL: Adv. Transportaton Planning, Co-instructor. (SS'2021-2026)
- MTL: Regional Planning Lab, Co-instructor. (SS'2021-2026)
- PHD: Advanced Artificial Intelligence and Machine Learning (SS'2022-2026)

University of Illinois at Chicago – Chicago, Illinois

- UPP 510: Data Analysis for Planning and Management (grad) (S'2017), Co-instructor with Prof. Kawamura.
- UPP 560: Urban Transportation Planning I (grad) (F'2016), Co-instructor with Prof. Kawamura.
- UPP 510: Data Analysis for Planning and Management (grad) (S'2016), Teaching Assistant for Prof. Kawamura.

SUPERVISION

Graduation Research – Tokyo University of Marine Science and Technology

- Shuka Asano. 2026. "Typology analysis of establishment freight transport behavior and model estimation".
- Riku Matsuda. 2026. "Study on last-mile delivery mode choice modeling".
- Risako Oga. 2026. "Longitudinal analysis of logistics facility location and transport efficiency in the Tokyo metropolitan area".
- Rumi Oyama. 2026. "Study on freight vehicle travel demand in the Tokyo metropolitan area".
- Daichi Fukuda. 2026. "Study on urban delivery time choice considering temporal variations in network performance".
- Mei Okura. 2025. "Spatial Characteristics of Micro Hubs in Shenzhen and Tokyo".
- Masahiro Kawasaki. 2025. "Use of Urban Space by Large Logistics Facilities and the Impact of E-commerce".
- Yuri Sakamoto. 2025. "Estimation of Freight Vehicle Trip Generation Model Using GPS Data".
- Yuichiro Tanaka. 2025. "Framework of Urban Typology for Freight".
- Mika Taniguchi. 2025. "Parking Time of Freight Vehicles in Cities: Development of a Survival Model Using Data from the Tokyo Metropolitan Area".
- Azuki Watanabe. 2025. "Simulation of E-commerce-related Freight Transport".
- Yusei Onuma. 2024. "Covariance Structure Analysis of Online Shopping Use: A Comparison of Japan and the U.S. Focusing on Accessibility to Railroads".
- Riko Matsushita. 2024. "Research on the location potential of factories in the Tokyo metropolitan area".

- Yumi Hazenoki. 2024. “Analysis of freight vehicle route choice within a metropolitan area”.
- Yuki Hirabayashi. 2024. “Study on the spatial distributions of last mile facilities in metropolitan areas”.
- Ryota Kodeta. 2024. “Development of an intra-city cargo receipt time selection model using GPS data”.
- Shinya Takana. 2023. “A study on the location and efficiency of last-mile facilities in the home delivery business”.
- Riki Motojima. 2023. “Modeling household-based e-commerce daily goods demand: Case study in Japan”.
- Yurika Takano. 2023. “The evolution of urban freight generation: a study of intra- and inter-city truck trips”.
- Shota Iizuka. 2022. “Decision factors for online and offline shopping: analysis using the NYC Mobility Survey data under the coronavirus pandemic”.
- Kohei Santo. 2022. “Study of logistics facility locations for e-commerce”.

Master Research – Tokyo University of Marine Science and Technology

- Zhe Song. 2026. “Adoption of Parcel Lockers and Pickup Stations in Shenzhen: Practices, Regulations, and Spatial Distribution”.
- Jasper D. Tolentino. 2026. “Profiles of Electrification-Feasible Goods Vehicles and the Impacts of Electrification Policies: A Metropolitan-Scale Analysis”.
- Ryota Kodera. 2026. “Simulation-based evaluation of the impact of Logistics as a Service on urban e-commerce deliveries”.
- Yumi Hazenoki. 2026. “Development of a route choice model for freight vehicles using GPS data and its implementation in traffic assignment simulation”.
- Yuki Hirabayashi. 2026. “Analysis of the impact of the location of intermediate facilities on traffic demand in metropolitan areas”.
- Salang Aaron Michael Villeza. 2025. “Advancing Urban Freight Simulation: A Comprehensive Review, Implementation and Scenario Analysis”.
- Shinya Tanaka. 2025. “Development of a Simulation Model for External Freight Considering the Use of Wide-area Logistics Facilities”.
- Riki Motojima. 2025. “Development of Data-driven Heuristics for Tour Generation in Agent-based Urban Freight Simulation”.
- Shugo Nibe. 2023. “A study on goods vehicle tours in the Tokyo Metropolitan Area using probe data”.

Ph.D. Dissertation Committee Member

- Junseong Kim. 2025. PhD in Applied Environmental Studies, Tokyo University of Marine Science and Technology. “A Study on the Prediction of LNG Spot Freight Rates Using Artificial Intelligence-Based Time Series Models”, Supervisor: Daisuke Watanabe.
- Dinah Achieng Ewuradjoa Ogara. 2023. PhD in Applied Environmental Studies, Tokyo University of Marine Science and Technology. “An Integrated Approach To Land-Sea Planning And Management; The Land-Sea Nexus Of Mombasa Port City”, Supervisor: Tetsuro Hyodo.
- Koichiro Hayasi. 2023. PhD in Applied Environmental Studies, Tokyo University of Marine Science and Technology. “Analysis of Periodic Fluctuations in Spot Charter Rates for Dry Bulk Cargo Vessels Using Supply and Demand Factors”, Supervisor: Tetsuro Hyodo.
- Peiyu Jing. 2021. PhD in Civil and Environmental Engineering, Massachusetts Institute of Technology. “Design and Evaluation of Urban Congestion Pricing Policies with Microsimulation of Passenger and Freight”, Supervisor: Moshe E. Ben-Akiva.

HONORS

- Excellent Paper Award (Special Issue on Infrastructure Planning), Japan Society of Civil Engineers Journal (Infrastructure Planning Series): "Development of a Value Flow Estimation Method by Integrating Two Traffic Census Datasets" (June 7, 2025)
  土木学会論文集 特集号（土木計画学）優秀論文賞「2 つの交通センサスデータを組み合わせた Value Flow 推計手法の開発」(2025/6/7)
- Winner of 2018 Best Paper Award in TRB Urban Freight Transportation Committee
- Winner of 2017 Best Paper Award in TRB Urban Freight Transportation Committee

GRANTS

- The Institute of Behavioral Sciences, Research donation, 2026. JPY 2,000,000.
- The Institute of Behavioral Sciences, IBS Fellowship, 2024-2026
  Awarded JPY 2,250,000. Principal Investigator. "Implementation of an agent-based urban freight model and simulation analysis".
- Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (C), FY2025-2028
  Awarded JPY 18,850,000 (shared). Co-PI. "Development of a network analysis theory for electric vehicles integrating power and transportation for decarbonization of logistics".
- Japan Society for the Promotion of Science, Grant-in-Aid for Scientific Research (C), FY2024-2027
  Awarded JPY 4,160,000 (shared). Co-PI. "Development of Value Flow Calibration Method Combining Two Transportation Census Data".
- Japan Society for the Promotion of Science, Grant-in-Aid for Young Scientists, FY2023-2025
  Awarded JPY 6,240,000. Principal Investigator. "Implementation of an agent-based urban freight model and simulation analysis".
- Japan Society for the Promotion of Science, Gant-in-Aid for Research Activity Start-up, FY2021-2022
  Awarded JPY 2,730,000. Principal Investigator. "Development of a supply-side model for e-commerce transportation analysis".
- Joint research with Expressway Technical Research Institute, Inc. FY2021-2022.
  1,760, 000 JPY (shared). "Research on traffic trend analysis method using existing data".
- Commissioned research for "Research and development of technology that contributes to improving the quality of road policy" by the Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism. FY2021-2022.
  24,880,000 JPY (shared). "Technical Research and Development of Road Infrastructure Considering Double-Connected Trucks and Freight Vehicles in Formation".
- Volvo Research & Educational Foundations Study Visit Grant, 2015
  Awarded SEK 24,000 (USD 2,830), for the research at IFSTTAR, French.
- Volvo Research & Educational Foundations Study Visit Grant, 2013
  Awarded SEK 16,000 (USD 1,710) for the research at Kyoto University, Japan.
- University of Illinois at Chicago, Urban Planning and Policy Scholar Award, 2013-2017
  Four-year tuition waiver and research assistantship.
- Japan Student Services Organization Scholarship, 2013-2016
  Awarded JPY 4,248,000 (USD 41,440)

SERVICE AND AFFILIATIONS

- **Director**, Institute for City Logistics, 2024-Present
- **Handling Editor**, *Transportation Research Record* (TRR), SAGE, 2026-Present
- **Member,** World Conference on Transport Research Society, 2022-Present.
- **Member,** Japan Society of Civil Engineers, 2022-Present.
- **Program Commitee Member**, 2025 International Urban Freight Conference, 2024-2025.

- **Scientific Committee Member**, Twelfth Triennial Symposium on Transportation Analysis (TRISTAN XII), 2024-2025.
- **Committee Member**, TRB, Freight Transportation Planning and Logistics Committee (AT015), 2019-2025.
- **Member**, World Society for Transport and Land Use Research, 2018-2021.
- **Reviewer**
  - Applied Geography
  - Asian Transport Studies
  - Case Studies on Transport Policy
  - Cities
  - Environmental & Socio-economic Studies
  - European Journal of Transport and Infrastructure Research
  - International Conference on City Logistics
  - International Journal of Urban Sciences
  - Journal of Transport Geography
  - Research in Transportation Business & Management
  - Simulation Modelling Practice and Theory
  - Transportmetrica A
  - Transportation
  - Transportation Planning and Technology
  - Transportation Research Interdisciplinary Perspectives
  - Transportation Research Part A
  - Transportation Research Part B
  - Transportation Research Part C
  - Transportation Research Part E
  - Transportation Research Record
  - TRB Annual Meeting
    - TRB, Freight Transportation Planning and Logistics Committee (AT015)
    - TRB, Urban Freight Transportation Committee (AT025)
- Invited Participant, OECD, International Transport Forum, Roundtable Urban Logistics Hubs, 26th-27th June 2023.
- Advisory committee (in Japan)
  - Committee Member, "Study Committee on Analysis and Synthesis for the 12th National Freight Flow Survey," Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and NX Logistics Research Institute and Consulting, Inc., September 2026–Present.
    委員, 国土交通省・株式会社 NX 総合研究所「第 12 回全国貨物純流動調査における分析・とりまとめに関する検討会」, 2026 年 9 月～現在
  - Committee Member, Akihabara Station Area (Soto-Kanda District) Parking Area Rule Formulation Committee, May 2026–Present.
    委員, 秋葉原駅周辺（外神田）地区駐車場地域ルール策定協議会, 2026 年 5 月～現在
  - Committee Member, PIARC (World Road Association) ST2 "Mobility" TC 2.3 "Freight Transport" Domestic Committee, September 2024–Present.
    委員, 世界道路協会（PIARC）ST2「モビリティ」TC2.3「貨物輸送」国内委員会, 2024 年 9 月～現在

- Committee Member, “Roundtable on OD Surveys,” Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and The Institute of Behavioral Sciences, April 2023–Present.
  委員, 国土交通省・一般財団法人計量計画研究所「OD 調査に関する懇談会（OD 調査懇談会）」, 2023 年 4 月～現在
- Committee Member, Taito City Parking Development Plan Formulation Committee, March 2025–March 2026.
  委員, 台東区「駐車場整備計画策定委員会」, 2025 年 3 月～2026 年 3 月
- Committee Member, “Study Committee on Analysis and Synthesis for the 12th National Freight Flow Survey,” Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Pacific Consultants Co., Ltd., February 2026–March 2026.
  委員, 国土交通省・パシフィックコンサルタンツ株式会社「第 12 回全国貨物純流動調査の分析・とりまとめに関する検討会」, 2026 年 2 月～2026 年 3 月
- Committee Member, “Modeling and Data Utilization Working Group,” Study Group on the Comprehensive Urban Transportation System for the Tokyo Metropolitan Area, Tokyo Metropolitan Area Transportation Planning Council (Kanto Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism), May 2022–March 2026.
  委員, 東京都市圏交通計画協議会（国土交通省関東地方整備局）「東京都市圏総合都市交通体系のあり方検討会 モデリング・データ活用 WG」, 2022 年 5 月～2026 年 3 月
- Committee Member, “Study Committee on the Effects and Impacts of Introducing Automated Driving in the Transportation Sector and Measures to Accelerate Its Adoption,” Japan Transport and Tourism Research Institute, December 2023–March 2025.
  委員, 一般財団法人運輸総合研究所「交通分野における自動運転導入の効果・影響分析と普及加速化に関する検討委員会」, 2023 年 12 月～2025 年 3 月
- Committee Member, “Transportation Industry GX Roadmap Study Committee,” Japan Transport and Tourism Research Institute, December 2023–March 2025.
  委員, 一般財団法人運輸総合研究所「交通産業 GX ロードマップ検討会」, 2023 年 12 月～2025 年 3 月
- Expert Committee Member, “Research on Measures to Reduce Environmental Impacts through Coordination between Logistics and Urban/Transportation Infrastructure,” Policy Research Institute for Land, Infrastructure, Transport and Tourism and Chuo Fukken Consultants Co., Ltd., September 2023–March 2024.
  有識者委員, 国土交通省国土政策研究所（国政研）・中央復建コンサルタンツ株式会社「物流と都市・交通インフラの連携による環境負荷削減方策に関する調査研究」, 2023 年 9 月～2024 年 3 月
- Committee Member, “Study Committee on Analysis and Synthesis for the 11th National Freight Flow Survey,” Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and NX Logistics Research Institute and Consulting, Inc., March 2022–March 2023.
  委員, 国土交通省・株式会社 NX 総合研究所「第 11 回全国貨物純流動調査の分析・とりまとめに関する検討会」, 2022 年 3 月～2023 年 3 月