

研究業績リスト / Curriculum Vitae

金沢大学 融合学域 講師 佐津川功季

2026 年 1 月 31 日

1 学術論文（査読有）

- [1.1] Daijiro Mizutani, Rie Ikushima, Koki Satsukawa, Yosuke Kawasaki and Masao Kuwahara, Integrating real-time monitoring information into asset failure modeling: application to ETC facilities, *Journal of Infrastructure Systems*, 2025 (Accepted).
- [1.2] Koki Satsukawa, Takamasa Iryo, Naoki Yoshizawa, Michael J. Smith and David Watling, Adjustment process of adaptive signal control strategies with route choices: a case study with Policy P0, *Transportmetrica B: Transport Dynamics*, 13(1), 2025.
- [1.3] Daijiro Mizutani, Shunichi Fukuyama and Koki Satsukawa, Optimal road facility spare parts location with continuum approximation, *Transportation Research Part C: Emerging Technologies*, 174, 105109, 2025.
- [1.4] Koki Satsukawa, Kentaro Wada and Takamasa Iryo, Stability analysis of a departure time choice problem with atomic vehicle models, *Transportation Research Part B: Methodological*, 189, 103039, 2024.
- [1.5] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, Queue replacement principle for corridor problems with heterogeneous commuters, *Transportation Research Part B: Methodological*, 187, 103024, 2024.
- [1.6] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, A paradox of telecommuting and staggered work hours in the bottleneck model, *Transportation Science*, 58(6), 1335-1351, 2024.
- [1.7] Koki Satsukawa, Yusuke Hara, Yosuke Kawasaki and Takamasa Iryo, A design of a bundling reservation system for urban transport services under demand uncertainty, *Japanese Journal of JSCE*, 80(9), 23-00206, 2024.
- [1.8] Daijiro Mizutani, Yuto Nakazato, Rie Ikushima, Koki Satsukawa, Yosuke Kawasaki and Masao Kuwahara, Optimal intervention policy of emergency storage batteries for expressway facilities considering deterioration risk during lead time of replacement, *Reliability Engineering & System Safety*, 242, 109735, 2024.
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- [1.10] Koki Satsukawa, Daijiro Mizutani, Yosuke Kawasaki, Takeo Kaneda and Masao Kuwahara, Optimal repair policy for ETC facility with economic losses due to traffic congestion during failures, *Journal of Japan Society of Civil Engineers*, Ser. D3 (Infrastructure Planning and Management), 78(3), 105-121, 2022.
- [1.11] Haoran Fu, Takashi Akamatsu, Koki Satsukawa and Kentaro Wada, Dynamic traffic assignment in a corridor network with multiple bottlenecks: Optimum versus equilibrium, *Transportation Research Part B: Methodological*, 161, 218-246, 2022.
- [1.12] Michael J. Smith, Takamasa Iryo, Richard Mounce, Koki Satsukawa and David Watling, Zero-queue traffic control, using green-times and prices together, *Transportation Research Part C: Emerging Technologies*, 138, 103630, 2022.
- [1.13] Rie Ikushima, Daijiro Mizutani, Koki Satsukawa, Yosuke Kawasaki and Masao Kuwahara, Possibility of improving management policies for expressway facilities based on questionnaire survey of on-site engineers, *Journal of Japan Society of Civil Engineers*, Ser. F4 (Construction and Management), 78(1), 51-69, 2022.
- [1.14] Koki Satsukawa, Kentaro Wada and David Watling, Dynamic system optimal assignment with atomic users: Convergence and stability, *Transportation Research Part B: Methodological*, 155, 188-209, 2022.
- [1.15] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, Departure time choice problems with heterogeneous values of schedule delay in tandem bottlenecks, *Journal of Japan Society of Civil Engineers*, Ser. D3 (Infrastructure Planning and Management), 77(4), 330-345, 2021.
- [1.16] Takashi Akamatsu, Takeshi Nagae, Minoru Osawa, Koki Satsukawa, Takara Sakai and Daijiro Mizutani, Model-based analysis on social acceptability and feasibility of a focused protection strategy against the COVID-19 pandemic, *Scientific Reports*, 11, 2003, 2021.
- [1.17] Daijiro Mizutani, Yosuke Kawasaki, Koki Satsukawa, Takeshi Nakagawa, Shogo Umeda, Rie Ikushima and Masao Kuwahara, A basic method to evaluate management policies of variable message signs on expressways considering user costs, *Journal of Japan Society of Civil Engineers*, Ser. D3 (Infrastructure Planning and Management), 76(5), I.127-I.139, 2021.
- [1.18] Koki Satsukawa, Kentaro Wada and Takamasa Iryo, Stochastic stability of dynamic user equilibrium in unidirectional networks: Weakly acyclic game approach, *Transportation Research Part B: Methodological*, 125, 229-247, 2019.
- [1.19] Kentaro Wada, Koki Satsukawa, Mike Smith and Takashi Akamatsu, Network throughput under dynamic user equilibrium: Queue spillback, paradox and traffic control, *Transportation Research Part B: Methodological*, 126, 391-413, 2018.
- [1.20] Kentaro Wada, Toru Seo, Wataru Nakanishi, Koki Satsukawa and Masami Yanagihara, Recent advances in kinematic wave theory of traffic flows: Variational formulation and network extension, *Journal of Japan Society of Civil Engineers*, Ser. D3 (Infrastructure Planning and Management), 73(5), I.1139-I.1158, 2017.
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user equilibrium, *Journal of Japan Society of Civil Engineers*, Ser. D3 (Infrastructure Planning and Management), 73(1), 56-72, 2017.

- [1.22] 佐津川功季, 和田健太郎, 単一終点ネットワークにおける動的交通量配分問題の Nash 均衡解の解法について, 土木学会論文集 D3 (土木計画学), 73(1), 103-108, 2017.
- [1.23] Koki Satsukawa and Sample Coauthor, Sample article for PDF-only listing (dummy), *Sample Journal*, 10(1), 1-10, 2020.

2 国際会議（査読有）

- [2.1] Koki Satsukawa and Yuki Takayama, New stable responsive local gating strategies to control vehicle queues and flows in congested urban networks, *The 26th International Symposium on Transportation and Traffic Theory (ISTTT26)*, Munich, Germany, 2026 (Accepted).
- [2.2] Riki Kawase, Koki Satsukawa and Toru Seo, Flexible and reliable transportation network design for emerging transportation services: multi-stage stochastic programming approach, *The 26th International Symposium on Transportation and Traffic Theory (ISTTT26)*, Munich, Germany, 2026 (Accepted).
- [2.3] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, Queue replacement approach to dynamic user equilibrium assignment with route and departure time choice, *The 26th International Symposium on Transportation and Traffic Theory (ISTTT26)*, Munich, Germany, 2026 (Accepted).
- [2.4] Sowa Suzuki, Haruki Takiguchi, Takamasa Iryo, Haruko Nakao, Koki Satsukawa, David Watling and Richard Connors, Designing pricing strategies for community-owned shared transport: An evolutionary approach, *The 29th International Conference of Hong Kong Society for Transportation Studies*, Hong Kong, China, 2025.
- [2.5] Takeru Nihei, Takamasa Iryo and Koki Satsukawa, A distributed evolutionary algorithm for optimisation of public transport operations with mixed-capacity vehicle fleets, *The 29th International Conference of Hong Kong Society for Transportation Studies*, Hong Kong, China, 2025.
- [2.6] Michael Smith, David Watling, Ronghui Liu, Koki Satsukawa, Takamasa Iryo and Richard Mounce, New stable responsive local gating strategies to control vehicle queues and flows in congested urban networks, *The 10th International Symposium on Dynamic Traffic Assignment (DTA2025)*, Salerno, Italy, 2025.
- [2.7] Takamasa Iryo, David Watling, Koki Satsukawa, Richard Connors, Haruko Nakao and Sowa Suzuki, Markov-chain-based model for the evolutionary process of self-financed shared mobility systems: Theoretical assessments, *The 10th International Symposium on Dynamic Traffic Assignment (DTA2025)*, Salerno, Italy, 2025.
- [2.8] Haruki Takiguchi, Sowa Suzuki, Takamasa Iryo, Koki Satsukawa and Haruko Nakao, Assessing the evolutionary process of self-financed shared mobility systems: A laboratory experimental approach, *The 10th International Symposium on Dynamic Traffic Assignment (DTA2025)*, Salerno, Italy, 2025.
- [2.9] Yuki Kosaka, Shota Tsurimoto, Masahiro Noguchi, Koki Satsukawa, Masayuki Takamura and Akihiro Nomura, Exploring optimal lifestyle modification pathway for preventing Cardiovascular disease

using machine learning and pathfinding algorithms, *European Society of Cardiology Congress 2025 (ESC2025)*, Madrid, Spain, 2025.

- [2.10] Haruko Nakao, Koki Satsukawa, Takamasa Iryo, Richard Connors and Sowa Suzuki, Evolutionary process of self-financed shared mobility systems, *The Twelfth Triennial Symposium on Transportation Analysis (TRISTAN XII)*, Okinawa, Japan, 2025.
- [2.11] Koki Satsukawa, Kentaro Wada and Takamasa Iryo, Stability analysis of a departure time choice problem with atomic vehicle models, *The 25th International Symposium on Transportation and Traffic Theory (ISTTT25)*, Ann Arbor, USA, 2024.
- [2.12] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, A paradox of telecommuting and staggered work hours in the bottleneck model, *The 25th International Symposium on Transportation and Traffic Theory (ISTTT25)*, Ann Arbor, USA, 2024.
- [2.13] Koki Satsukawa, Yusuke Hara, Yosuke Kawasaki and Takamasa Iryo, A study on the design of a reservation system for urban transport services under uncertainty, *The 9th International Symposium on Transport Network Resilience (INSTR2023)*, Hong Kong, China, 2023.
- [2.14] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, Welfare impacts of remote and flexible working policies in the bottleneck model, *11th Symposium of the European Association for Research in Transportation (hEART2023)*, Zurich, Switzerland, 2023.
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- [2.17] Takara Sakai, Takashi Akamatsu and Koki Satsukawa, Departure time choice problems in a corridor network with heterogeneous value of schedule delay, *The 27th International Conference of Hong Kong Society for Transportation Studies*, Hong Kong, China (online), 2022.
- [2.18] Koki Satsukawa, Kentaro Wada and David Watling, Dynamic system optimal traffic assignment with atomic users: Convergence and stability, *The 24th International Symposium on Transportation and Traffic Theory (ISTTT24)*, Beijing, China (online), 2022.
- [2.19] Michael J. Smith, Takamasa Iryo, Richard Mounce, Koki Satsukawa and David Watling, Zero-queue traffic control using green-times and prices together, *The 8th International Symposium on Dynamic Traffic Assignment*, Seattle, USA (online), 2021.
- [2.20] Koki Satsukawa, Kentaro Wada and Takamasa Iryo, Stochastic stability of dynamic user equilibrium in unidirectional networks: Weakly acyclic game approach, *The 23rd International Symposium on Transportation and Traffic Theory (ISTTT23)*, Lausanne, Switzerland, 2019.
- [2.21] Kentaro Wada and Koki Satsukawa, A theoretical analysis of Macroscopic Fundamental Diagram based on dynamic user equilibrium, *The 6th International Symposium on Dynamic Traffic Assignment*,

Sydney, Australia, 2016.

- [2.22] Koki Satsukawa and Kentaro Wada, Effect of origin-destination structures on network performance: Some simple examples, *The 20th International Conference of Hong Kong Society for Transportation Studies*, Hong Kong, China, 2015.

3 著書・解説

- [3.1] 佐津川功季, 都市交通計画の基礎 (ダミー), 交通工学出版, 2023.

4 招待講演

- [4.1] 佐津川功季, 交通ネットワーク解析の最前線 (招待講演・ダミー), 第 10 回交通システムシンポジウム, 2024 年 7 月.

5 その他会議発表等

国際セミナー・ワークショップ

- [5.1] 佐津川功季, Network dynamics under uncertainty (dummy), International Traffic Flow Workshop, Kyoto, Japan, March 2024.

国内会議 (査読無)

- [5.2] 佐津川功季, 都市交通における需要変動分析 (ダミー), 土木学会年次学術講演会, 2023 年 9 月.

6 競争的研究資金

- [6.1] Grant-in-Aid for Scientific Research (C) (dummy), Japan Society for the Promotion of Science, Principal Investigator, 2024–2026, JPY 3,000,000.
- [6.2] University Research Seed Fund (dummy), The University of Tokyo, Co-Investigator, 2022–2023, JPY 1,000,000.

7 共同研究実績

- [7.1] 都市交通データ分析に関する共同研究 (ダミー), 民間企業 A, 研究代表, 2024–2025.

8 社会貢献

委員会等

[8.1] 交通計画委員会 委員（ダミー）, 土木学会, 委員, 2024-.

学会活動

[8.2] 学会年次大会 運営補助（ダミー）, 交通工学研究会, 運営委員, 2023.

学術査読

査読活動（ダミー）, Transportation Research Part B, Reviewer, 2024.