

Kashin Sugishita | CV

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Contact Information

Kashin Sugishita

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Professional Positions

Visiting Scholar Department of Mathematics University at Buffalo, State University of New York, USA	09/2019 - Present
Overseas Research Fellow Japan Society for the Promotion of Science, Japan	04/2019 - Present
Visiting Researcher School of Environment and Society Tokyo Institute of Technology, Japan	04/2019 - Present
Visiting Research Associate Department of Engineering Mathematics University of Bristol, United Kingdom	04/2019 - 08/2019
Research Fellow DC2 Japan Society for the Promotion of Science, Japan	04/2018 - 03/2019

Education

Doctor of Engineering Department of Civil and Environmental Engineering Tokyo Institute of Technology, Japan Supervisor: Prof. Yasuo Asakura	03/2016 - 03/2019
Exchange Student Institute for Transport Planning and Systems ETH Zürich, Switzerland Supervisors: Dr. A. Horni, Dr. F. Ciari, and Prof. K. Axhausen	08/2014 - 02/2015
Master of Engineering Department of Civil Engineering Tokyo Institute of Technology, Japan	04/2014 - 03/2016

Bachelor of Engineering
Department of Civil and Environmental Engineering
Tokyo Institute of Technology, Japan

04/2010 - 03/2014

Awards and Honors

Kometani-Sasaki Prize Excellent Ph.D. Dissertation Award, Institute of Systems Science Research, Japan	11/2020
Kikkawa-Yamaguchi Prize Excellent Ph.D. Dissertation Award, Tokyo Institute of Technology, Japan	12/2019
Repayment Exemption for Students with Excellent Grades Japan Student Services Organization (JASSO)	06/2016
The 130th Anniversary Tokyo Institute of Technology Foundation Encouragement Scholarship for Ph.D. Students Tokyo Institute of Technology, Japan	10/2015
TOBITATE! Young Ambassador Program Japan Public-Private Partnership Student Study Abroad Program Ministry of Education, Culture, Sports, Science and Technology (MEXT) Acceptance Rate: 19.0% (323 of 1,700 applicants)	06/2014
Tokyo Tech International Research Opportunities Program (TiROP) <i>Decline the Acceptance for TOBITATE! Young Ambassador Program</i> Ministry of Education, Culture, Sports, Science and Technology (MEXT)	06/2014

Research Fellowships

Overseas Research Fellowships Japan Society for the Promotion of Science Host Universities: [09/2019 – 03/2021] Department of Mathematics, University at Buffalo, the State University of New York, USA. [04/2019 – 08/2019] Department of Engineering Mathematics, University of Bristol, the United Kingdom. Host Researcher: Dr. Naoki Masuda Acceptance Rate: 18.9% (10 of 53 applicants)	04/2019 - 03/2021
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Research Fellowships for Young Scientists (DC2)

04/2018 - 03/2019

Japan Society for the Promotion of Science

Host University:

Department of Civil and Environmental Engineering,

Tokyo Institute of Technology, Japan.

Host Researcher: Prof. Yasuo Asakura

Acceptance Rate: 20.0% (194 of 968 applicants)

Grants

KAKENHI Grant-in-Aid for Research Activity Start-Up

10/2019 - 03/2021

Japan Society for the Promotion of Science, Japan.

Grant Number: 19K23531

Amount: JPY 2,860,000

Role: PI

KAKENHI Grant-in-Aid for JSPS Fellows

04/2018 - 03/2020

Japan Society for the Promotion of Science, Japan.

Grant Number: 18J13572

Amount: JPY 1,900,000

Role: PI

Decline in Mar 2019 for Overseas Research Fellowships

Publications

Preprints

- [2] [Kashin Sugishita](#), Mason A. Porter, Mariano Beguerisse-Díaz, and Naoki Masuda, Opinion dynamics in tie-decay networks, *arXiv preprint*, arXiv:2010.00143, 2020.
- [1] [Kashin Sugishita](#) and Naoki Masuda, Recurrence in the evolution of air transport networks, *arXiv preprint*, arXiv:2005.14392, 2020.

Refereed Journal Papers

- [6] [Kashin Sugishita](#) and Yasuo Asakura, Vulnerability studies in the fields of transportation and complex networks: a citation network analysis, *Public Transport*, 2020.
<https://doi.org/10.1007/s12469-020-00247-9>.
- [5] Naoto Ogashira, [Kashin Sugishita](#), and Yasuo Asakura, Risk assessment for hazardous materials transportation considering roadside and traffic conditions, *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)*, Vol.74, No.5, pp.l_771–l_778, 2019. (in Japanese)
- [4] [Kashin Sugishita](#) and Yasuo Asakura, The impact of partial capacity reduction on network vulnerability against cascading failure, *International Journal of Critical Infrastructures*, Vol.14, No.2, pp.140–155, 2018.
- [3] [Kashin Sugishita](#) and Yasuo Asakura, Vulnerability of interdependent networks against cascading failure, *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)*, Vol.73, No.5, pp.l_233–l_242, 2017. (in Japanese)

- [2] Takao Dantsuji, Kashin Sugishita, Daisuke Fukuda, and Mitsuyuki Asano, Analysis of the Properties of Tourists' Dwell Time using Wi-Fi Packet Data: A Case Study of the Approach to Hase-dera Temple, *Journal of the City Planning Institute of Japan*, Vol.52, No.3, pp.247–254, 2017. (in Japanese)
- [1] Kashin Sugishita, Takahiko Kusakabe, and Yasuo Asakura, Effect of intentional removals of nodes as a defense strategy against cascading failure, *Journal of Japan Society of Civil Engineers, Ser. D3 (Infrastructure Planning and Management)*, Vol.72, No.5, pp.I_1781–I_1792, 2016. (in Japanese)

Refereed Proceedings Papers.....

- [4] Kashin Sugishita and Yasuo Asakura, Citation network analysis of vulnerability studies in the fields of transportation and complex networks, *Transportation Research Procedia*, Vol.47, pp.369–376, 2020.
- [3] Kashin Sugishita and Yasuo Asakura, Network vulnerability analysis and mitigations strategy against cascading failure, *Proceedings of the 12th International Conference of Eastern Asia Society for Transportation Studies*, 8 pages, 2017.
- [2] Kashin Sugishita and Yasuo Asakura, Mitigation strategy against cascading failure for fragile networks, *Proceedings of the 21st International Conference of Hong Kong Society for Transportation Studies*, pp. 96–103, 2016.
- [1] Kashin Sugishita, Takahiko Kusakabe, and Yasuo Asakura, Cascading failure in a road network depending on external systems, *Proceedings of the 6th International Symposium on Transportation Network Reliability*, 2–1–1 in USB media, 15 pages, 2015.

Refereed International Conference Presentations.....

- [13] Noha Abdel-Mottaleb, Qiong Zhang, Kashin Sugishita, and Naoki Masuda, Can Bio-Inspired network design improve the performance of water distribution networks (WDNs)?, *World Environmental and Water Resources Congress (2021 EWRI Congress)*, Milwaukee, May 2021.
- [12] Kashin Sugishita, Noha Abdel-Mottaleb, Qiong Zhang, and Naoki Masuda, A growth model for water distribution networks with loops, *Conference on Complex Systems (CCS 2020)* Online, December 2020. [poster presentation]
- [11] Kashin Sugishita and Naoki Masuda, Structural evolution of US airline networks, *NetSci 2020*, Online, September 2020. [oral presentation]
- [10] Kashin Sugishita, Mason A. Porter, Mariano Beguerisse-Díaz, and Naoki Masuda, Opinion dynamics in tie-decay temporal networks, *Third Northeast Regional Conference on Complex Systems (NERCCS 2020)*, Online, April 2020. [poster presentation]
- [9] Kashin Sugishita, Mason A. Porter, Mariano Beguerisse-Díaz, and Naoki Masuda, Opinion dynamics in tie-decay networks, *NetSci-X 2020*, Tokyo, Japan, January 2020. [oral presentation]
- [8] Kashin Sugishita and Yasuo Asakura, Citation network analysis of vulnerability studies in the fields of transportation and complex networks, *22nd Euro Working Group on Transportation Meeting (EWGT)*, Barcelona, Spain, September 2019. [oral presentation]

- [7] Kashin Sugishita and Yasuo Asakura, Uncovering community structure in a citation network of vulnerability studies in transportation and complex networks, *30th European Conference on Operational Research (EURO)*, Dublin, Ireland, June 2019. [oral presentation]
- [6] Kashin Sugishita and Yasuo Asakura, Influence of route choice behavior on vulnerability to cascading failure in transportation networks, *Mathematics Applied in Transportation and Traffic Systems (MATTS)*, Delft, Netherlands, October 2018. [oral presentation]
- [5] Naoto Ogashira, Yasuo Asakura, and Kashin Sugishita, Risk assessment for hazardous materials transportation considering roadside and traffic conditions, *7th International Symposium on Transportation Network Reliability (INSTR)*, Sydney, Australia, January 2018. [oral presentation]
- [4] Kashin Sugishita and Yasuo Asakura, Network vulnerability analysis and mitigations strategy against cascading failure, *12th International Conference of Eastern Asia Society for Transportation Studies (EASTS)*, Ho-Chi-Minh, Vietnam, September 2017. [oral presentation]
- [3] Kashin Sugishita and Yasuo Asakura, Mitigation strategy against cascading failure for fragile networks, *21st International Conference of Hong Kong Society for Transportation Studies (HKSTS)*, Hong Kong, China, December 2016. [oral presentation]
- [2] Kashin Sugishita, Takahiko Kusakabe, and Yasuo Asakura, Cascading failure in a road network depending on external systems, *6th International Symposium on Transportation Network Reliability (INSTR)*, Nara, Japan, August 2015. [oral presentation]
- [1] Kashin Sugishita, Katsuya Sakai, and Yasuo Asakura, Vulnerability assessment for cascading failures in interdependent networks, *The 3rd Symposium of the European Association for Research in Transportation (hEART)*, Leeds, United Kingdom, September 2014. [oral presentation]

International Workshops.....

- [4] Kashin Sugishita, Recurrence in the evolution of air transport networks, *The 5th Japan-US Science Forum in Boston*, Online, November 2020.
- [3] Kashin Sugishita, Citation network analysis of vulnerability studies in the fields of transportation and complex networks, *International Workshops on Transport Network Analysis under Emergency Situations*, Gifu, October 2018.
- [2] Kashin Sugishita, Risk management for gridlock in transportation networks, *Shuttle Seminars of University of Seoul, Henan University of Technology and Tokyo Institute of Technology*, Tokyo, April 2018.
- [1] Kashin Sugishita, Intentional removals of nodes and links to avoid gridlock, *International Workshop "Big Data and Transportation Dynamics"*, Tokyo, March 2018.