Joseph Y. J. Chow, Ph.D., P.E.

BUILT Lab Website: https://wp.nyu.edu/built/
Last Update: November 7, 2019

RESEARCH INTERESTS

Transportation systems, urban logistics, network modeling, travel behavior, time geography, dynamic optimization, smart cities

EDUCATION

University of California, Irvine – Irvine, CA
Doctor of Philosophy (Civil Engineering), Sept 2006 – March 2010
Major in Transportation Systems Engineering
Dissertation: "Flexible Management of Transportation Networks under Uncertainty", Advisor: Amelia C. Regan

Cornell University – Ithaca, NY
Master of Engineering (Civil Engineering), Sept 2000 – May 2001
Major in Engineering Management (Option in Systems Engineering)

Cornell University – Ithaca, NY
Bachelor of Science (Civil Engineering), Sept 1996 – May 2000
Major in Civil Engineering, Minor in Applied Math

ACADEMIC EXPERIENCE

New York University – New York, NY, USA
Assistant Professor, Department of Civil & Urban Engineering, Sept 2015 – Present
Deputy Director, C^{2}SMART Tier-1 University Transportation Center
Associated Faculty, Center for Urban Science and Progress, Dec 2015 – Present
Associated Faculty, Rudin Center for Transportation Policy & Management, Dec 2015 – Present

1) *Eisenhower Fellowship,* PI: Ziyi Ma, Advisor: **J.Y.J. Chow**; Sponsor: US DOT
2) *Development and tech transfer of multi-agent virtual simulation test bed ecosystem*, PI: **J.Y.J. Chow**, Co-PI: Kaan Ozbay, Sponsor: C2SMART
3) *Simulation and analytical evaluation of bus redesign alternatives in transit deserts with ride-hail presence*, PI: **J.Y.J. Chow**, Co-PI: Eric Goldwyn, Sponsor: C2SMART
4) *Synthesis of real time public transit route deviation operational policies*, PI: **J.Y.J. Chow**, Sponsor: FTA
5) *Dual Rebalancing Strategies for Electric Vehicle Carsharing Operations*, PI: **J.Y.J. Chow**, Co-PI: S. Jabari; Sponsor: C^{2}SMART UTC; Industry partner: BMW ReachNow
6) *Development of an open source multi-agent virtual simulation test bed for evaluating emerging transportation technologies and policies*, PI: **J.Y.J. Chow**, Co-PI: K. Ozbay; Sponsor: C^{2}SMART UTC
7) *Eisenhower Fellowship,* PI: Heba Omholt, Advisor: **J.Y.J. Chow**; Sponsor: US DOT
8) *City-scalable Destination Recommender System for On-demand Senior Mobility*, PI: **J.Y.J. Chow**; Sponsor: C^{2}SMART UTC
9) *CAREER: Urban Transport Network Design with Privacy-Aware Agent Learning*; PI: **J.Y.J. Chow**; Sponsor: NSF; Program: CAREER (CMMI-CIS), Industry partners (data sharing): BestMile, Via; Award No. CMMI-1652735
10) *C^{2}SMART: Connected Cities for Smart Mobility Towards Accessible and Resilient Transportation*; PI: K. Ozbay; Sponsor: US DOT; Program: Tier-1 University Transportation Center
11) *Stable matching of service tours to design cooperative policies for transport infrastructure systems*; PI: **J.Y.J. Chow**; Sponsor: NSF; Program: CMMI-CIS, Award No. CMMI-1634973

12) *ARISE*: Applied Research Innovations in Science and Engineering; Sponsor: NYU Tandon

Ryerson University – Toronto, Ontario, Canada
Assistant Professor, Department of Civil Engineering, June 2012 – Aug 2015
Tier-2 Canada Research Chair in Transportation Systems Engineering
Active/Completed Grants

1) *Agent-based decision support system for a flexible transit service pilot*; PI: **J.Y.J. Chow**; Sponsor: NSERC; Program: Engage (EGP 477367-14); Industry Partner: Metrolinx
2) *Development of mobile device-based surrogate systems for connected and autonomous vehicle technologies*; PI: **J.Y.J. Chow**; Sponsors: Ontario Ministry of Transportation, NSERC; Programs: Ontario Centres of Excellence CV-AV Research Program VIP (#22905), NSERC Engage (EGP 477034-14); Industry partner: Transnomis
3) *Exploring urban freight policies on downtown parking*; PI: **J.Y.J. Chow**, Sponsor: Ryerson Centre for Urban Research and Land Development
4) *Dynamic Door-to-Transit Station 'Shared' E-Taxi Serving Smart Community*, PI: **J.Y.J. Chow**, Sponsor: MITACS, Program: Accelerate
5) *Multimodal Systems Design with Network Interactions*, PI: **J.Y.J. Chow**, Sponsor: NSERC, Program: Discovery Grants (RGPIN/435172-2013) (with **Early Career Researcher Supplement**)
6) Tier-2 CRC: *Design of Smarter Urban Logistics Systems*, PI: **J.Y.J. Chow**, Sponsor: NSERC (#950-228458)
7) Leaders Opportunity Fund: *Testbed for Cyber-Physical Urban Logistics Systems*, PI: **J.Y.J. Chow**, Sponsor: Canada Foundation for Innovation and Ministry of Economic Development and Innovation
8) *California Statewide Freight Forecasting Model* (Subcontract from UCI), PI: **J.Y.J. Chow**, Sponsor: California Department of Transportation

University of Southern California – Los Angeles, CA
Instructor, Price School of Public Policy, Jan 2012 – Apr 2012
Lecturer, Viterbi School of Engineering, Daniel J. Epstein Department of Industrial & Systems Engineering, Apr 2010 – Dec 2010

University of California, Irvine – Irvine, CA
Postdoctoral Scholar, Institute of Transportation Studies, Apr 2010 – May 2012, supervisors: W.W. Recker, S.G. Ritchie

9) *Development of a New Methodology to Characterize Truck Body Types along California Freeways*, PI: S.G. Ritchie, Sponsor: California Air Resources Board
10) *A Dynamic Normative Model of Conditions for Viability of Alternative Fuel Vehicles*, PI: W.W. Recker, Sponsor: University of California Transportation Center
11) *California Statewide Freight Forecasting Model*, PI: S.G. Ritchie, Sponsor: California Department of Transportation
12) *Tour-Based and Activity-Based Modeling of Clean Trucks at Southern California Ports*, PI: S.G. Ritchie, Sponsor: University of California Transportation Center
13) *Conceptual and Methodological Development of a California Statewide Freight Demand Model*, PI: S.G. Ritchie, Sponsor: California Department of Transportation
14) *An Activity-based Assessment of the Bounds of Sustainable Alternative Transportation Futures*, PI: W.W. Recker, Sponsor: University of California Multi-campus Research Program

Graduate Student Researcher, Institute of Transportation Studies, Sept 2006 – Mar 2010, dissertation committee co-chairs: A.C. Regan, R. Jayakrishnan

15) *Assessment and Development of Commodity Flow, Logistics, and other Relevant Goods Movement Data Sources to Facilitate Statewide Freight Modeling*, PI: S.G. Ritchie and A.C. Regan, Sponsor: California Department of Transportation

16) *Large Scale Real Option Models for Network Investment Planning and Operational Risk Hedging*, PI: A.C. Regan, Sponsor: University of California Transportation Center
17) Eisenhower Graduate Fellowship (GRAD), PI: **J.Y.J. Chow**, Sponsor: U.S. Department of Transportation
18) *Sustainable Transit Feasibility Study for Mojave National Preserve*, PI: **J.Y.J. Chow**, Sponsor: National Parks Conservation Association
19) Market Segmentation Research Study, PI: S.G. Ritchie, Sponsor: a global ITS provider

HONORS

NSF CAREER award, 2017-2022
2018 CUTC Cambridge Systematics New Faculty Award (for teaching and research)
Tier-2 Canada Research Chair, 2013-2017
Winner of 2013 Best Paper Award in TRB Freight Transportation Planning & Logistics Committee
ITS World Congress Student Smart Phone ITS App Competition Winner (supervisory role), 2011
Eisenhower Graduate Fellow (GRAD), awarded $91,500, 2007 – 2010
Eno Transportation Foundation Fellow, 2009

PEER-REVIEWED PUBLICATIONS (ORCID 0000-0002-6471-3419, supervised authors underlined)

1) Caros, N. S., **Chow, J. Y. J.**, 2020. Effects of violent crime and vehicular crashes on active mode choice decisions in New York City, *Travel Behavior and Society*, 18, 37-45.
2) Xu, S. J., **Chow, J. Y. J.**, 2019. A longitudinal study of bike infrastructure impact on bike-share system performance in New York City. *International Journal of Sustainable Transportation*, in press, doi: 10.1080/15568318.2019.1645921.
3) Ma, T. Y., Rasulkhani, S., **Chow, J. Y. J.**, Klein, S., 2019. A dynamic ridesharing dispatch and idle vehicle repositioning strategy with integrated transit transfers. *Transportation Research Part E* 128, 417-442.
4) He, B. Y., **Chow, J. Y. J.**, 2019. Optimal privacy control for transport network data sharing. *Transportation Research Part C*, SI:ISTTT23, in press, doi: 10.1016/j.trc.2019.07.010.
5) Zhou, J., Lai, X., **Chow, J. Y. J.**, 2019. Multi-armed bandit on-time arrival algorithms for sequential reliable route selection under uncertainty. *Transportation Research Record*, in press, doi: 10.1177/0361198119850457.
6) Rasulkhani, S., **Chow, J.Y.J.**, 2019. Route-cost-assignment with joint user and operator behavior as a many-to-one stable matching assignment game. *Transportation Research Part B* 124, 60-81.
7) Jung, J., **Chow, J.Y.J.**, 2019. Effects of charging infrastructure and non-electric taxi competition on electric taxi adoption incentives in New York City. *Transportation Research Record* 2673(4), 262-274.
8) Allahviranloo, M., **Chow, J.Y.J.**, 2019. A fractionally owned autonomous vehicle fleet sizing problem with time slot demand substitution effects, *Transportation Research Part C* 98, 37-53.
9) Liu, X., **Chow, J.Y.J.**, Li, S., 2018. Online monitoring of taxi travel momentum and congestion effects using projections of taxi GPS-based vector fields, *Journal of Geographical Systems* 20(3), 253-274.
10) Xu, S. J., Nourinejad, M., Lai, X., **Chow, J.Y.J.**, 2018. Network learning via multi-agent inverse transportation problems, *Transportation Science*, special issue of TRISTAN IX, 52(6), 1347-1364.
11) Guo, Q.W., **Chow, J.Y.J.**, Schonfeld, P., 2018. Stochastic dynamic switching in fixed and flexible transit services as market entry-exit real options. *Transportation Research Part C*, SI: ISTTT 22, 94, 288-306.
12) Sayarshad, H.R., **Chow, J.Y.J.**, 2017. Non-myopic relocation of idle mobility-on-demand vehicles as a dynamic location-allocation-queueing problem. *Transportation Research Part E* 106, 60-77.
13) Ma, Z., Urbanek, M., Pardo, M.A., **Chow, J.Y.J.**, Lai, X., 2017. Spatial welfare effects of shared taxi operating policies for first mile airport access, *International Journal of Transportation Science and Technology* 6(4), 301-315.
14) Djavadian, S., **Chow, J.Y.J.**, 2017. An agent-based day-to-day adjustment process for modeling 'Mobility as a Service' for a two-sided flexible transport market, *Transportation Research Part B*, 104, 36-57.

15) Mendes, L.M., Bennàssar, M.R., **Chow, J.Y.J.**, 2017. Comparison of Light Rail Streetcar Against Shared Autonomous Vehicle Fleet for Brooklyn–Queens Connector in New York City. *Transportation Research Record* 2650, 142-151.
16) Ma, T.Y., **Chow, J.Y.J.**, Xu, S. J., 2017. Causal structure learning for travel mode choice using structural restrictions and model averaging algorithm. *Transportmetrica A* 13(4), 299-325.
17) Djavadian, S., **Chow, J.Y.J.**, 2017. Agent-based day-to-day adjustment process to evaluate dynamic flexible transport service policies. *Transportmetrica B* 5(3), 286-311.
18) Amer, A., **Chow, J.Y.J.**, 2017. A downtown on-street parking model with urban truck delivery behavior. *Transportation Research Part A*, SI: Freight Behavior Research, 102, 51-67.
19) **Chow, J.Y.J.**, 2016. Dynamic UAV-based traffic monitoring as a stochastic arc-inventory routing policy, *International Journal of Transportation Science and Technology*, SI: Unmanned Aerial Vehicles, 5(3), 167-185.
20) Sayarshad, H.R., **Chow, J.Y.J.**, 2016. Survey and empirical evaluation of nonhomogeneous arrival process models with taxi data. *Journal of Advanced Transportation*, 50(7), 1275-1294.
21) Harvey, M.J., Liu, X., **Chow, J.Y.J.**, 2016. A tablet-based surrogate system for "in-situ" evaluation of cyber-physical transport technologies. *IEEE ITS Magazine* 8(4), 79-91.
22) You, S.I., **Chow, J.Y.J.**, Ritchie, S.G., 2016. Inverse vehicle routing for activity-based urban freight forecast modeling and city logistics. *Transportmetrica A*, special issue on Activity-Travel Behavior Analysis and Multi-State Supernetwork Modeling, 12(7), 650-673.
23) Chin, A., Lai, A., **Chow, J.Y.J.**, 2016. Nonadditive Public Transit Fare Pricing Under Congestion with Policy Lessons from a Case Study in Toronto, Ontario, Canada. *Transportation Research Record*, 2544, 28-37.
24) Nourinejad, M., **Chow, J.Y.J.**, Roorda, M.J., 2016. Equilibrium scheduling of vehicle-to-grid technology using activity-based modelling. *Transportation Research Part C*, SI: Advances in Alternative Fuel Vehicle Transportation Systems, 65, 79-96.
25) **Chow, J.Y.J.**, Sayarshad, H.R., 2016. Reference policies for non-myopic sequential network design and timing problems. *Networks and Spatial Economics* 16(4), 1183-1209.
26) Sayarshad, H.R., **Chow, J.Y.J.**, 2015. A scalable non-myopic dynamic dial-a-ride and pricing problem, *Transportation Research Part B*, SI: Urban Service Networks, 81(2), 539-554.
27) Zhao, M., **Chow, J.Y.J.**, Ritchie, S.G., 2015. An inventory-based simulation model for annual-to-daily temporal freight assignment, *Transportation Research Part E* 79, 83-101.
28) **Chow, J.Y.J.**, Djavadian, S., 2015. Activity-based market equilibrium for capacitated multimodal transport systems. *Transportation Research Part C*, SI: ISTTT 21, 59, 2-18.
29) Liu, X., Yan, W.Y., **Chow, J.Y.J.**, 2015. Time-geographic relationships between vector fields of activity patterns and transport systems, *Journal of Transport Geography* 42, 22-33.
30) **Chow, J.Y.J.**, Nurumbetova, A.E., 2015. A multi-day activity-based inventory routing model with space-time-needs constraints. *Transportmetrica A* 11(3), 243-269.
31) Lorion, A., Harvey, M.J., **Chow, J.Y.J.**, 2015. Redesign of curricula in transit systems planning to meet data-driven challenges. *Journal of Professional Issues in Engineering Education and Practice*, 141(3), 05014007.
32) **Chow, J.Y.J.**, 2014. Policy analysis of third party electronic coupons for public transit fares. *Transportation Research Part A* 66, 238-250.
33) **Chow, J.Y.J.**, Ritchie, S.G., Jeong, K., 2014. Nonlinear inverse optimization for parameter estimation of commodity-vehicle-decoupled freight assignment. *Transportation Research Part E* 67, 71-91.
34) **Chow, J.Y.J.**, Sayarshad, H.R., 2014. Symbiotic network design strategies in the presence of coexisting transportation networks. *Transportation Research Part B* 62, 13-34.
35) Djavadian, S., Hoogendoorn, R.G., van Arem, B., **Chow, J.Y.J.**, 2014. Empirical evaluation of drivers' route choice behavioral responses to social navigation. *Transportation Research Record* 2423, 52-60.
36) Allahviranloo, M., **Chow, J.Y.J.**, Recker, W.W., 2014. Selective vehicle routing problems under uncertainty without recourse. *Transportation Research Part E* 62, 68-88.
37) **Chow, J.Y.J.**, 2014. Activity-based travel scenario analysis with routing problem reoptimization. *Computer-Aided Civil and Infrastructure Engineering* 29(2), 91-106.

38) Jung, J., **Chow, J.Y.J.**, Jayakrishnan, R., Park, J., 2014. Stochastic dynamic itinerary interception facility location with queue delay for electric taxi charging stations. *Transportation Research Part C* 40, 123-142.
39) **Chow, J.Y.J.**, Regan, A.C., 2014. A surrogate-based multiobjective metaheuristic and network degradation simulation model for robust toll pricing. *Optimization and Engineering* 15(1), 137-165.
40) Kang, J.E., **Chow, J.Y.J.**, Recker, W.W., 2013. On activity-based network design problems. *Transportation Research Part B* 57, 398-418.
41) Ranaiefar, F., **Chow, J.Y.J.**, Rodriguez-Roman, D., Camargo, P.V., Ritchie, S.G., 2013. Structural commodity generation model that uses public data: geographic scalability and supply chain elasticity analysis. *Transportation Research Record* 2378, 73-83. Winner of Best Paper Award from AT015 Committee on Freight Transportation Planning and Logistics.
42) **Chow, J.Y.J.**, 2013. On observable chaotic maps for queueing analysis. *Transportation Research Record* 2390, 138-147.
43) **Chow, J.Y.J.**, Hernandez, S.V., Bhagat, A., McNally, M.G., 2013. Multicriteria sustainability assessment in transport planning for recreational travel. *International Journal of Sustainable Transportation* 8(2)**,** 151-175.
44) **Chow, J.Y.J.**, Liu, H., 2012. Generalized profitable tour problems for an online activity routing system. *Transportation Research Record* 2284, 1-9.
45) **Chow, J.Y.J.**, Recker, W.W., 2012. Inverse optimization with endogenous arrival time constraints to calibrate the household activity pattern problem. *Transportation Research Part B* 46(3), 463-479.
46) **Chow, J.Y.J.**, Regan, A.C., Ranaiefar, F., Arkhipov, D.I., 2011. A network option portfolio management framework for adaptive transportation planning. *Transportation Research Part A* 45(8), 765-778.
47) **Chow, J.Y.J.**, Regan, A.C., 2011. Network-based real option models. *Transportation Research Part B* 45(4), 682-695.
48) **Chow, J.Y.J.**, Regan, A.C., 2011. Real option pricing of network design investments. *Transportation Science*, 45(1), 50-63.
49) **Chow, J.Y.J.**, Regan, A.C., 2011. Resource location and relocation models with rolling horizon forecasting for wildland fire planning. *INFOR* 49(1), 31-43.
50) Tok, Y., Zhao, M., **Chow, J.Y.J.**, Ritchie, S.G., Arkhipov, D.I., 2011. An on-line data repository for statewide freight planning and analysis. *Transportation Research Record* 2246, 121-129.
51) **Chow, J.Y.J.**, Yang, C.H., Regan, A.C., 2010. State-of-the-art of freight forecast modeling: lessons learned and the road ahead. *Transportation*, 37 (6), 1011-1030.
52) **Chow, J.Y.J.**, Regan, A.C., Arkhipov, D.I., 2010. Faster converging global heuristic for continuous network design using radial basis functions. *Transportation Research Record* 2196, 102-110.
53) **Chow, J.Y.J.**, Lee, G., Yang, I., 2010. Genetic algorithm to estimate cumulative prospect theory parameters for selection of high-occupancy-vehicle lane. *Transportation Research Record* 2157, 71-77.

BOOKS

54) **Chow, J.Y.J.**, 2018. *Informed Urban Transport Systems: Classic and Emerging Mobility Methods Toward Smart Cities, 1st Ed*. Elsevier, Amsterdam, The Netherlands.
55) **Chow, J.Y.J.**, 2010. *Flexible Management of Transportation Networks under Uncertainty*. PhD dissertation, University of California, Irvine, 256p.

BOOK CHAPTERS

56) **Chow, J.Y.J.**, Jayakrishnan, R., Mahmassani, H.S., 2013. Is transport modeling education too multidisciplinary? A manifesto on the search for its evolving identity. *Travel Behaviour Research: Current Foundations, Future Prospect*, eds. E.J. Miller and M.J. Roorda, Lulu Publishing.

CONFERENCE PROCEEDINGS

57) Li, L., Lin, D., Pantelidis, T., Jabari, S. E., **Chow, J. Y. Y.**, An agent-based simulation for shared automated electric vehicles with vehicle relocation. IEEE ITSC 2019, accepted.

58) Jung, J., **Chow, J. Y. J.**, 2019. Large-scale evaluation of fleet repositioning strategies for dynamic rideshare in New York City, SAE conference.
59) He, B.Y., **Chow, J. Y. J.**, 2019. Optimal privacy control for transport network data sharing, ISTTT23, Lausanne, Switzerland.
60) Ma, T.Y., Pantelidis, T., **Chow, J. Y. J.**, 2019. Optimal queueing-based rebalancing for one-way electric carsharing systems with stochastic demand. Proc. 98th Annual Meeting of the Transportation Research Board, Washington, DC.
61) Khan, S.A.K., Bierds, W., Bringardner, J., **Chow, J. Y. J.**, 2019. Adapting the business model canvas entrepreneurship tool to assist transportation technology transfer. Proc. 98th Annual Meeting of the Transportation Research Board, Washington, DC.
62) Jung, J., **Chow, J.Y.J.**, 2019. Effects of charging infrastructure and non-electric taxi competition on electric taxi adoption incentives in New York City. Proc. 98th Annual Meeting of the Transportation Research Board, Washington, DC.
63) Abou Kasm, O., Ma, Z., **Chow, J.Y.J.**, Diabat, A., 2019. Quantifying the effect of cyclist behavior on bicycle crashes and fatalities. Proc. 98th Annual Meeting of the Transportation Research Board, Washington, DC.
64) Zhou, J., Lai, X., **Chow, J. Y. J.**, 2019. Multi-armed bandit on-time arrival algorithms for sequential reliable route selection under uncertainty, Proc. 98th Annual Meeting of the Transportation Research Board, Washington, DC.
65) Caros, N., **Chow, J. Y. J.**, 2019. Effects of violent crime and vehicular crashes on active mode choice decisions in New York City, Proc. 98th Annual Meeting of the Transportation Research Board, Washington, DC.
66) Cheu, R.L., Villanueva-Rosales, N., Nunez-Mchiri, G.G., Vechione, M., Vargas-Acosta, R.A., Marrufo, C., Jimenez-Velasco, M.G., Gurbuz, O., Dmitriyeva, A., **Chow, J.Y.J.**, 2018. Smart mobility for seniors: challenges and solutions in El Paso, TX, and New York, NY, IEEE ISC2.
67) Xu, S. J., **Chow, J. Y. J.**, 2018. A longitudinal study of bike infrastructure impact on bike-share system performance. *Proc. 97th Annual Meeting of the Transportation Research Board*, Washington DC.
68) Rasulkhani, S., **Chow, J.Y.J.**, 2018. Route-cost-assignment with joint user and operator behavior as a many-to-one stable matching assignment game. *Proc. 97th Annual Meeting of the Transportation Research Board*, Washington DC.
69) Ma, T.Y., **Chow, J.Y.J.**, Rasulkhani, S., 2018. An integrated dynamic ridesharing dispatch and idle vehicle repositioning strategy on a bimodal transport network. *Proc. Transport Research Arena 2018*, Vienna, Austria, doi: 0.5281/zenodo.2155709.
70) He, Y., **Chow, J.Y.J.**, Nourinejad, M., 2017. A privacy design problem for sharing transport service tour data, *Proc. IEEE ITS Conference*, Yokohama, Japan.
71) Guo, Q.W., **Chow, J.Y.J.**, Schonfeld, P., 2017. Stochastic dynamic switching in fixed and flexible transit services as market entry-exit real options. In: Proc. ISTTT 22, Transportation Research Procedia 23C, 380-399.
72) Mendes, L.M., Bennàssar, M.R., **Chow, J.Y.J.**, 2017. Simulation experiment to compare light rail streetcar against shared autonomous vehicle fleet for Brooklyn Queens Connector, In: *Proc. 96th Annual Meeting of the Transportation Research Board*, Washington DC.
73) Nourinejad, M., **Chow, J.Y.J.**, Roorda, M.J., 2016. Equilibrium scheduling of vehicle-to-grid technology using activity-based modelling. In: *Proc. 95th Annual Meeting of the Transportation Research Board*, Washington DC.
74) Harvey, M.J., Liu, X., **Chow, J.Y.J.**, 2016. A tablet-based surrogate system for "in-situ" evaluation of cyber-physical transport technologies. In: *Proc. 95th Annual Meeting of the Transportation Research Board*, Washington DC.
75) Chin, A., Lai, A., **Chow, J.Y.J.**, 2016. Non-additive public transit fare pricing under congestion with policy lessons from Toronto case study. In: *Proc. 95th Annual Meeting of the Transportation Research Board*, Washington DC.
76) **Chow, J.Y.J.**, Djavadian, S., 2015. Activity-based market equilibrium for capacitated multimodal transport systems, *Transportation Research Procedia*, ISTTT 21, 7, 2-23.

77) **Chow, J.Y.J.**, Sayarshad, H.R., 2015. A network-sensitive reference policy for non-myopic sequential network design and timing problems. In: *Proc. 94th Annual Meeting of the Transportation Research Board*, Washington, DC.
78) Liu, X., Yan, W.Y., **Chow, J.Y.J.**, 2014. Time-geographic relationships between vector fields of activity patterns and transport systems, Proceedings of NSF Big Data and Urban Informatics Workshop, University of Illinois, Chicago.
79) Djavadian, S., Hoogendoorn, R.G., van Arem, B., **Chow, J.Y.J.**, 2014. Empirical evaluation of drivers' route choice behavioral responses to social navigation. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
80) Ranaiefar, F., **Chow, J.Y.J.**, McNally, M.G., Ritchie, S.G., 2014. A structural direct demand model for inter-regional commodity flow forecasting. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
81) Lorion, A., Harvey, M.J., **Chow, J.Y.J.**, 2014. Redesign of curricula in transit systems planning to meet data-driven challenges. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
82) **Chow, J.Y.J.**, Nurumbetova, A.E., 2014. An inventory routing model for multi-day activity-based travel needs. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
83) Jung, J., **Chow, J.Y.J.**, Jayakrishnan, R., Park, J., 2014. Stochastic dynamic itinerary interception facility location with queue delay for electric taxi charging stations. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
84) **Chow, J.Y.J.**, Sayarshad, H.R., 2014. Symbiotic network design strategies in the presence of coexisting transportation networks. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
85) **Chow, J.Y.J.**, 2014. Trading public transport travel demand for electronic coupons through mobile device fare collection. In: *Proc. 93rd Annual Meeting of the Transportation Research Board*, Washington, DC.
86) Kang, J.E., **Chow, J.Y.J.**, Recker, W.W., 2013. On activity-based network design problems. In: Proc. ISTTT 20, *Procedia – Social and Behavioral Sciences* 80(7), 157-185.
87) Ahmad, I., Andrea, D., Harpe, S., Harvey, M.J., Saraceni, A., Sansome, J., Hosseini, H., **Chow, J.Y.J.**, Easa, S., 2013. An integrated approach to carpool parking lot expansion design to achieve sustainability. In: *Proc. of CSCE 2013 General Conference*, Montreal, Quebec.
88) **Chow, J.Y.J.**, 2013. On observable chaotic maps for queueing analysis. *Proc. 92nd Annual Meeting of the Transportation Research Board*, Washington DC.
89) Ranaiefar, F., **Chow, J.Y.J.**, Rodriguez-Roman, D., Camargo, P.V., Ritchie, S.G., 2013. Geographic scalability and supply chain elasticity of a structural commodity generation model using public data. *Proc. 92nd Annual Meeting of the Transportation Research Board*, Washington DC.
90) **Chow, J.Y.J.**, Ritchie, S.G., 2012. A freight transshipment network model for forecasting commodity and commercial vehicle flows. *Proc. 91st Annual Meeting of the Transportation Research Board*, Washington DC.
91) **Chow, J.Y.J.**, Liu, H., 2012. Multicommodity profitable tour problems for an online activity routing system. *Proc. 91st Annual Meeting of the Transportation Research Board*, Washington DC.
92) Tok, Y., Zhao, M., **Chow, J.Y.J.**, Ritchie, S.G., Arkhipov, D.I., 2011. An on-line data repository for statewide freight planning and analysis. *Proc. 90th Annual Meeting of the Transportation Research Board*, Washington DC.
93) **Chow, J.Y.J.**, Regan, A.C., Arkhipov, D.I., 2010. Fast converging global heuristic for continuous network design problem using radial basis functions. *Proc. 89th Annual Meeting of the Transportation Research Board*, Washington DC.
94) **Chow, J.Y.J.**, Lee, G., Yang, I., 2010. Estimating cumulative prospect theory parameters for HOV lane selection using genetic algorithm. *Proc. 89th Annual Meeting of the Transportation Research Board*, Washington DC.
95) **Chow, J.Y.J.**, Regan, A.C., 2009. Real option pricing of continuous network design investments. *Proc. 88th Annual Meeting of the Transportation Research Board*, Washington DC.
96) Zhao, M., **Chow, J.Y.J.**, Regan, A.C., 2009. Data for freight decision-making, *Proc. 3rd National Urban Freight Conference 2009*, Long Beach, CA.

97) Yang, C.H., **Chow, J.Y.J.**, Regan, A.C., 2009. State-of-the-Art of Freight Forecasting Modeling: Lessons Learned and the Road Ahead. *Proc. 88th Annual Meeting of the Transportation Research Board*, Washington DC.

SPONSORED RESEARCH REPORTS

98) *Dual Rebalancing Strategies for Electric Vehicle Carsharing Operations*, PI: J.Y.J. Chow, Co-PI: S.E. Jabari; Sponsor: C2SMART UTC
99) *City-scalable Destination Recommender System for On-demand Senior Mobility*, PI: J.Y.J. Chow; Sponsor: C^{2}SMART UTC.
100) *Development of mobile device-based surrogate systems for connected and autonomous vehicle technologies*, 2016. PI: J.Y.J. Chow, Industry partner: Transnomis, Sponsors: Ontario Ministry of Transportation, NSERC; Programs: Ontario Centres of Excellence CV-AV Research Program VIP (#22905), NSERC Engage (EGP 477034-14).
101) *Agent-based Decision Support for a Flexible Transport Service Pilot*, 2016. PI: J.Y.J. Chow, Industry Partner: Metrolinx, Sponsored by NSERC Engage Grant EGP 477367-14.
102) *A Downtown On-street Parking Model with Urban Truck Delivery Effects*, 2015. PI: J.Y.J. Chow, Sponsored by Ryerson Centre for Urban Research and Land Development.
103) *Conceptual and Methodological Development of a California Statewide Freight Demand Model: Final Report of Scoping Study*, 2011. PI: S.G. Ritchie, Sponsored by California Department of Transportation.
104) *Assessment and Development of Commodity Flow, Logistics, and Other Relevant Goods Movement Data Sources to Facilitate Statewide Freight Modeling*, 2010. PI: S.G. Ritchie, Sponsored by California Department of Transportation.
105) *Sustainable Transit Feasibility Study for Mojave National Preserve*, 2010. No. MOJA-00223, PI: J.Y.J. Chow, Sponsored by National Parks Conservation Association.

TEACHING EXPERIENCE

New York University—New York, NY

- TR-GY 7073: Travel Behavioral Informatics (F'2017, S'2019)
- TR-GY 8013: Sustainable Logistics and Freight (co-taught with Dr. Catrin Lammgård) (F'2016)
- TR-GY 7133: Public Transport (S'2016, S'2018)
- TR-GY 7013: Urban Transport & Logistics Systems (F'2015, F'2016, F'2018, F'2019)
- CE-UY 3303: Traffic Engineering (S'2017, S'2018)
- CE-UY 3373: Transportation Systems Analytics (S'2019)

Ryerson University—Toronto, ON

- CVL 8407: Urban Transport Systems (grad), (S'2013)
- CVL 910/CV8403: Transportation Planning (mixed), (F'2013, W'2013, F'2014)
- CVL 316: Introduction to Transportation Engineering (undergrad), (W'2014, W'2013)

University of Southern California – Los Angeles, CA

- PPD 557: Modeling and Operations Research, Price School of Public Policy, (S'2012)
- ISE 460: Engineering Economics, Dept of Industrial and Systems Engineering, Viterbi School of Engineering (F'2010, S'2010)

University of California, Irvine – Irvine, CA

- Econ 285C: Colloquium for Transportation Science, Theme "Network Economics" (S'2011)
- Teaching Assistant for Dr. Jin, CEE 11: Introduction to Probability, 147 undergrads enrolled (S'2009)

Cornell University – Ithaca, NY
- Teaching Assistant for Dr. Meyburg, CEE 590: Project Management (grad), CEE 361: Intro to Transportation (undergrad) (S'2001)
- Teaching Assistant for Dr. Davidson, CEE 598: Intro to Decision Analysis (grad) (F'2000)

SUPERVISION

Postdoctoral Fellows
- Xintao Liu, June 2014 – Jan 2016; Position: Assistant Professor, HK Polytechnic University
- Taimur Usman, Aug – Dec 2013; Position: Postdoctoral Fellow, University of Waterloo

PhD Students (3 completed)
- Bingqing Chloe Liu, 2019 – Present
- Jesse Fu, 2018 – Present
- Qi Liu, 2017 – Present
- Gyugeun Yoon, 2017 – Present
- Ted Pantelidis, 2017 – Present
- Saeid Rasulkhani, 2016 – Present
- Yueshuai He, 2016 – Present
- Jinkai Zhou, 2015 – Present

1. Susan Jia Xu, 2019, Topic: "Learning in capacitated multimodal networks over time"; Position: Transportation Modeler, SANDAG
2. Shadi Djavadian, 2016, Topic: "Evaluation methods of dynamic flexible transportation systems", Position: Postdoctoral Fellow, Ryerson University
3. Hamid Reza Sayarshad, 2015, Topic: "Smart transit dynamic optimization and informatics", Position: Postdoctoral Fellow, Cornell University

MS/MASc/MEng Students with theses (7 completed)
- Ziyi Ma, 2019 – Present, Eisenhower Transportation Graduate Fellow, MS in Transportation Planning and Engineering
- Yu Ching Emily Chao, 2018 – Present, MS in Transportation Planning and Engineering
- Mengyun Mandy Li, 2018 – Present, MS in Transportation Planning and Engineering
- Nicolas Gomez, 2018 – Present, MS in Transportation Planning and Engineering
- Shams Sahar, 2018 – Present, MS in Transportation Planning and Engineering
- Srushti Rath, 2018 – Present, MS in Transportation Planning and Engineering
- Patrick Scalise, 2018 – Present, MS in Transportation Planning and Engineering

1. Nick Caros, 2019, Topic: "Dynamic operations of a mobility service with en-route transfers"; Position: PhD student, MIT
2. Lior Melnick, 2018, UTRC Graduate Fellow, Topic: "A dynamic ridesharing routing algorithm with en-route transfers"; Position: Transportation Analyst, VHB
3. Ahmed Amer, 2015, Topic: "A downtown on-street parking model with urban truck delivery effects"; Position: Project Manager, R.V. Anderson Associates Ltd
4. Rishi Lukka, 2015, Topic: "Development of TransCAD/GISDK algorithm to creating GTFS transit networks to measure regional access"; Position: Transportation Planner, Arup
5. Mohammad S. Bari, 2014, "Creating a calibrated traffic assignment model for freight data"; Position: Transportation Designer, BA Consulting
6. Fadwa Behnam, 2014, "Regression and comparative analysis between the Trucking Commodity Origin and Destination (TCOD) survey and the Commercial Vehicle Survey (CVS)"; Position: Technician, City of Mississauga

7. Heather Nottbeck, P.Eng., 2013, "Spatial analysis of large-scale freight commodity survey data for systems planning"; Position: Project Engineer, AECOM

Funded Graduate Research Assistants

- Mina Lee, 2019 – Present, MS in Computer Science
- Christian Moscardi, 2018, MS in Applied Urban Science and Informatics (CUSP), Position: Data Scientist, U.S. Census Bureau
- Heba Omholt, 2017 – 2018, Eisenhower Transportation Graduate Fellow, Position: Civil Analyst, Kimley-Horn
- Assel Dmitriyeva, 2017 – 2018, MS in Interactive Telecommunications Program (Tisch), Position: Senior Consultant I, KPMG
- Weerapan (Jacob) Rujikiatkumjorn, 2018, MS in Transportation Planning and Engineering, Position: Transport Technical Officer, Department of Airports in Bangkok
- Daniel Fay, 2017, MS in Applied Urban Science and Informatics (CUSP), Position: Senior Cloud Solution Architect, Microsoft
- Manel Rivera Bennàssar, 2016, MS in Transportation Management, Position: Chief Operating Officer of TransBus Balear
- Maria Alejandra Pardo, 2016, MS in Transportation Planning and Engineering, Position: Public Transportation Advisor, Secretaria Distrital de Movilidad (Bogota)

Ph.D. Dissertation Committee Member (9 completed)

1. Ilia Papakonstantinou, PhD in Transportation Planning and Engineering, New York University, 2019: "Highway Infrastructure Protection Planning against Sea Level Rise under Various Decision Maker Scenarios", Position: Postdoctoral Fellow, NYU Abu Dhabi (supervised by Samer Madanat)
2. Yuan Lai, PhD in Civil Engineering, New York University, 2019: "Integrated Urban Informatics: Towards Multidimensional Data Intelligence at High Resolution", Position: Lecturer in Urban Science and Planning, MIT
3. Yuan Zhu, PhD in Transportation Planning and Engineering, New York University, 2018: "Modeling and evaluation of degradable transportation systems in the presence of hurricanes for New York Metropolitan Area", Position: Assistant Professor, Inner Mongolia University
4. Abdullah Kurkcu, PhD in Transportation Planning and Engineering, New York University, 2018: "Connected Transportation Systems: Next Generation Traffic Simulatoin and Data Collection Tools and Techniques", Position: Research Associate, NYU
5. Kun Xie, PhD in Transportation Planning and Engineering, New York University, 2016: "New Opportunities in Urban Safety Analytics Using Advanced Quantitative Methods and Big Data" (*recipient of CUTC Pikarsky Memorial Dissertation Award*), Position: Assistant Professor, Old Dominion University
6. Taha Saleem, PhD in Civil Engineering, Ryerson University, 2016: "Advancing the Methodology for Predicting the Safety Effects of Highway Design and Operational Elements", Position: Postdoctoral Fellow, UNC Chapel Hill
7. Chandrabhanu Opathella Ganehi Kankanamalage, PhD in Electrical Engineering, Ryerson University, 2013: "Techno-Economic Models for Integration of Wind Energy", Position: IESO Distinguished Research Fellow, Ryerson Centre for Urban Energy
8. Yongsheng Chen, PhD in Civil Engineering, Ryerson University, 2013: "Integrating Information from Prior Research into a Before-After Road Safety Evaluation through Bayesian Approach and Data Sampling"; Position: Acting Senior Traffic Safety Engineer at Office of Traffic Safety, City of Edmonton
9. Miyuan Zhao, PhD in Transportation Science, University of California, Irvine, 2012: "Inventory-based Temporal Modeling for Freight Networks"; Position: Growth Analytics, Tophatter

PROFESSIONAL EXPERIENCE

Eng-Wong, Taub & Associates – New York, NY

Senior Engineer, July 2005 – Aug 2006
Transportation Engineer, Sept 2004 – July 2005

Berger, Lehman & Associates – Rye, NY
Transportation Engineer, Oct 2003 – Sept 2004

LOG-NET, Inc. – Little Silver, NJ
Project Coordinator, July 2001 – Oct 2003

INVITED TALKS

1) Panelist at NEEP 2019, "Electric Mobility in the New Smart City", Brooklyn, NY: https://twitter.com/nyutandon/status/1166695306244829184
2) "Planning for Mobility-as-a-Service: Decoupling the incentives of travelers and operators for smart cities", **Next Gen Mobility Summit**, Silicon Valley, CA, May 24, 2019.
3) "Overcoming obstacles to an electric mobility future", BEST Workshop, **Industry-University Cooperative Research Centers Program**, NSF, New York City, April 5, 2019.
4) "Evaluating emerging transportation technologies and policies with a 'Network of Living Labs'", **National Socio-Environmental Synthesis Center Workshop**, Annapolis, MD, Feb 22, 2019.
5) "Evaluation of Mobility-as-a-Service Alternatives", **The Hong Kong Polytechnic University**, Nov 23, 2018.
6) "Research Outcomes and Initiatives at BUILT@NYU", **Federal Transit Administration**, Washington DC, July 22, 2018.
7) "The Future of Cities: Mobility in Smart and Connected Cities", **Smart Cities NYC**, June 26, 2018.
8) "Overcoming obstacles toward a Mobility-as-a-Service future", **ITS-NY Annual Conference**, Saratoga Springs, NY, Jun 15, 2018.
9) "City-scalable destination recommender system for on-demand senior mobility", **NSF Research Coordination Network: Smart & Connected Communities and Aging Population**, Apr 20, 2018.
10) "Privacy control strategies to support Mobility-as-a-Service", **Erasmus University Rotterdam**, Apr 9, 2018.
11) "Urban Freight Systems Analysis", **Chung-Ang University**, Seoul, South Korea, Oct 14, 2017.
12) "Models to operate and evaluate mobility-as-a-service", **University of Minnesota**, Sept 6, 2017.
13) "Evaluating and Optimizing Smart Transit Operational Strategies", **Ford**, Dearborn, MI, Jan 19, 2017.
14) "Automated decision-making in last mile transit", **5th Automated & Connected Vehicles Symposium**, NYU, Nov 8, 2016.
15) "City monitoring with travel demand "momentum" vector fields: theoretical and empirical findings", **Transportation for Smart Cities Symposium at NYU Abu Dhabi**, March 25, 2016.
16) "Adaptive network design: introduction and application to charging infrastructure", **KAIST**, Daejeon, South Korea, Nov 23, 2015.
17) "From Discrete Choice to Agent-based Learning: Lessons for Future City Networks", **Seoul Metropolitan Forum: Future Cities**, University of Seoul, Seoul, South Korea, Nov 19-20, 2015.
18) "Advances in ICT-enabled transit fare management strategies", Bruce Podwal Seminar Series, **City College of New York**, New York, NY, USA, Oct 6, 2015.
19) "Challenges and advances in evaluating multimodal system designs", Luxembourg Institute of Socio-Economic Research (**LISER**), July 10, 2015.
20) "Reducing the cost of evaluating cyber-physical transportation systems", Western Canada Connected Vehicle Workshop, **University of Alberta**, Apr 14, 2015.
21) "Inverse transportation problems and application to multimodal route choices", PUTRUM Conference, **University of Calgary**, Feb 25, 2015.
22) "Inverse vehicle routing for activity-based urban freight forecast modeling and city logistics", **International Workshop on Activity-travel Behavior Analysis and Multi-state Supernetwork Modeling**, Hong Kong, China, Dec 16, 2014.

23) "Welfare effects of multimodal and flexible transport services", **University of Southern California**, Los Angeles, CA, USA, Dec 2, 2014.
24) "Inverse transportation problems in an urban Big Data world", **New York University**, Aug 21, 2014.
25) "What can we do with an instrumented city? Adaptation and user-awareness in urban transport systems network design", **University of Waterloo**, Waterloo, ON, Canada, Sep 12, 2013.
26) "Autonomous Vehicles for Transit Fleets", Autonomous Road Vehicles Forum, **Metrolinx**, Toronto, ON, Aug 28, 2013.
27) "Transportation Infrastructure Planning for Alternative Fuel Technologies", **8th International Hydrail Conference**, Toronto, ON, June 11-12, 2013.
28) "An Activity Routing and Scheduling Assignment Model for Travel Forecasting and Network Design", **University of Toronto**, Feb 1, 2013.
29) "Route Choice Modeling and Availability of (Big) Data Sets: Summary and Moving Forward", **Joint workshop with ADB30 and ADB10 committees**, 92nd TRB Annual Meeting, Washington, DC, Jan 2013.
30) "Modeling the Transfer of Commodities to Vehicles with Freight Infrastructure Congestion", **University of Toronto Freight Day II Symposium**, sponsored by Metrolinx and Region of Peel, Nov 1, 2012.
31) "Activity Routing and Scheduling: Calibration and Scenario Analysis for Activity-based Travel Forecast Models", **University of California, Irvine**, May 24, 2012.
32) "A Framework for Designing Activity-based, Adaptive Cyber-Physical City Logistics Systems", **Ryerson University**, Nov 8, 2011.
33) "Inverse Problems for Travel Behavior, Logistics, and Freight Forecasting", **University of Auckland**, July 18, 2011.
34) "Novel Network Models for Transportation Supply and Demand Analysis", **University of Texas, Austin**, Mar 22, 2011.
35) "Flexible Management of Transportation Networks under Uncertainty", **City College of New York**, Mar 19, 2010.
36) "21 Questions: Thoughts on Real Options, Network Design, and Freight Demand Forecasting", **Massachusetts Institute of Technology**, Center for Transportation and Logistics, Jun 16, 2009.

CONFERENCE PRESENTATIONS

37) "Empirical validation of network learning with taxi GPS data from Wuhan, China", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
38) "A path-based many-to-many assignment game to model Mobility-as-a-Service market networks", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
39) "Day-to-day market evaluation of last-mile transit operations using modular autonomous vehicles with en-route transfers", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
40) "Online route choice modeling for Mobility-as-a-Service networks with non-separable, congestible link capacity effects", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
41) "A many-to-many assignment game method to evaluate cost allocations of link operators in a Mobility-as-a-Service market without route enumeration", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
42) "Forecasting e-scooter competition with direct and access trips by mode and distance in New York City", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
43) "Flexible bus dispatching system with modular and fully automated bus units", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
44) "Air Taxi Skyport Location Problem for Airport Access", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.
45) "Reinforcement learning-based sequential transit route design under demand uncertainty", *99th Annual Meeting of the Transportation Research Board*, Washington DC, Jan 12-16, 2020.

46) “Dynamic on Demand Ride-sharing Trip-vehicle Matching with Pricing”, INFORMS Annual Meeting, Seattle, WA, Oct 20-23, 2019.
47) “Sequential Line Planning Problem With Integrated Learning For Emerging Mobility Routes”, INFORMS Annual Meeting, Seattle, WA, Oct 20-23, 2019.
48) “Online Rebalancing Algorithms For Electric Car-sharing Systems”, INFORMS Annual Meeting, Seattle, WA, Oct 20-23, 2019.
49) “Doubly-constrained rebalancing for one-way electric carsharing systems with capacitated charging stations”, 7th TSL Workshop, Vienna, Austria, July 15-18, 2019.
50) “A many-to-many stable matching cost allocation model for multimodal Mobility-as-a-Service”, TRISTAN X, Hamilton Island, Australia, June 17-21, 2019.
51) “A many-to-many stable matching cost allocation model for multimodal Mobility-as-a-Service”, INFORMS, Phoenix, AZ, Nov 4-7, 2018.
52) “Dynamically stable route deviation and user-operator cost allocation for a flexible transit service”, INFORMS, Phoenix, AZ, Nov 4-7, 2018.
53) “An integrated dynamic ridesharing dispatch and idle vehicle repositioning strategy on a bimodal transport network”, INFORMS, Phoenix, AZ, Nov 4-7, 2018.
54) “Evaluation of last-mile transit operations with en-route transfers”, hEART Conference, Athens, Greece, Sept 5-7, 2018.
55) “Effect of routing constraints on learning in contextual bandit mobility-on-demand destination recommendation systems”, IATBR, Santa Barbara, CA, July 15-20, 2018.
56) “Modeling non-separable, social-influenced multimodal route choice with congestible link capacities”, IATBR, Santa Barbara, CA, July 15-20, 2018.
57) “Real Options Switching Strategies in Dynamic Transport Service Operations”, INFORMS, Houston, TX, Oct 23, 2017.
58) “Route-cost-assignment with joint user and operator behavior as a many-to-one stable matching assignment game”, INFORMS, Houston, TX, Oct 23, 2017.
59) “An algorithm for preserving the privacy of sharing transport service route data”, INFORMS, Houston, TX, Oct 23, 2017.
60) “Pass programs and loyalty programs for transit agencies”, INFORMS, Houston, TX, Oct 23, 2017.
61) “Pass programs and loyalty programs for transit agencies”, TSL Conference, Chicago, IL, Jul 27, 2017.
62) “Inverse transportation problems to infer agent interactions in network-driven machine learning”, TRISTAN IX, Oranjestad, Aruba, June 12-17, 2016.
63) “City monitoring with dynamic UAV-based sweep coverage as a stochastic arc-inventory routing policy”, 4th INFORMS TSL Workshop, Berlin, Germany, July 6 – 8, 2015.
64) “The non-myopic dynamic dial-a-ride and pricing problem”, INFORMS Annual Meeting, San Francisco, CA, USA, Nov 8 – 11, 2014.
65) “Dynamic vehicle routing and pricing with look ahead for flexible transit”, IFORS 2014, Barcelona, Spain, July 13-18.
66) “Extreme value distributed performance measures for look-ahead algorithms in large-scale adaptive network design problems”, INFORMS TSL Workshop 2014: “Handling Uncertainty in Planning Logistics and Transportation Systems”, Loyola University, Chicago, IL, June 30-July 2, 2014.
67) “Symbiotic network design strategies in the presence of coexisting transportation networks”, INFORMS Annual Meeting, Minneapolis, MN, Oct 6-9, 2013.
68) “Stochastic dynamic itinerary interception refueling location problem with queue delay for electric taxi charging stations”, INFORMS Annual Meeting, Minneapolis, MN, Oct 6-9, 2013.
69) “Application of adaptive network design to transit fare revenue management”, INFORMS Annual Meeting, Minneapolis, MN, Oct 6-9, 2013.
70) “On observable chaotic maps for queueing analysis”, INFORMS Annual Meeting, Phoenix, AZ, Oct 14-17, 2012.
71) “Activity-based travel scenario analysis with routing problem reoptimization”, INFORMS Annual Meeting, Phoenix, AZ, Oct 14-17, 2012.

72) "A freight transshipment network model for forecasting commodity and cyclic commercial vehicle flows", ODYSSEUS 2012, 5th International Workshop on Freight Transportation and Logistics, Mykonos, Greece, May 21-25, 2012, abstract accepted.
73) "A Conceptual Statewide Freight Forecasting Framework for California", 4th METRANS National Urban Freight Conference, Long Beach, CA, October 12-14, 2011.
74) "Estimation of an activity-based demand model as a class of vehicle routing problems using inverse optimization", 19th Triennial Conference of the International Federation of Operational Research Societies (IFORS2011), Melbourne, Australia, July 10-15, 2011.
75) "Resource Location and Relocation Models with Rolling Horizon Forecasting for Wildland Fire Planning", 19th Triennial Conference of the International Federation of Operational Research Societies (IFORS2011), Melbourne, Australia, July 10-15, 2011.
76) "Sustainable Transportation Planning: An Outdoor Recreational Travel Case Study", poster presentation, UCTC Student Conference, UC Berkeley, Feb 24-25, 2011.
77) "Network-based Real Option Models and Their Applications to Adaptive Transportation Planning", 2011 Transportation Research Board 90th Annual Meeting, Washington DC, January 27, 2011.
78) "Network-based Real Option Models", 7th Triennial Symposium on Transportation Analysis, Tromsø, Norway, June 25, 2010.
79) "Multi-objective method for flexible robust network toll pricing with multi-regime network degradation", UCTC Student Conference, UC Irvine, Apr 1 – 2, 2010.
80) "Fast Converging Global Heuristic for Continuous Network Design Problem Using Radial Basis Functions", CORS/INFORMS International Meeting, Toronto, CA, June 14-17, 2009.
81) "Fire weather-based air tanker location and relocation models for statewide wildland fire planning", INFORMS 2009 Western Regional Conference, Tempe, AZ, April 24-25, 2009.
82) "Real Options in Network Models under Uncertainty", Doctoral Student Research in Transportation Modeling, 2009 Transportation Research Board 88th Annual Meeting, Washington DC, Jan 11, 2009.
83) "Real option pricing of continuous network design investments", poster presentation, UTC-PATH Conference: Tackling Congestion in an Era of Climate Change, Los Angeles CA, Nov 6 – 7, 2008.
84) "Real options in network investment and operational risk hedging", poster presentation, UCTC Student Conference, UC Santa Barbara, Jan 31 – Feb 2, 2008.

MEDIA COVERAGE

- NYC, 2018. De Blasio Administration announces winner of local climate action tech competition to accelerate electric vehicle use in New York City, press release, https://tech.cityofnewyork.us/2018/08/13/de-blasio-administration-announces-winner-of-local-climate-action-tech-competition-to-accelerate-electric-vehicle-use-across-new-york-city/.
- Woyke, E., 2017. The startup behind NYC's plan to replace phone booths with 7500 connected kiosks. *MIT Technology Review*, July 18. https://www.technologyreview.com/s/608281/the-startup-behind-nycs-plan-to-replace-phone-booths-with-7500-connected-kiosks/
- Zimmer, A., 2017. How NYC's small eco-footprint is threatened by rise of new economy. *DNAinfo*, July 5, 2017. https://www.dnainfo.com/new-york/20170705/red-hook/eco-footprint-new-economy-app-based-rides-package-deliveries
- Miller, S., 2017. Instead of building de Blasio's streetcar, what if we had self-driving Uber vans? *The Village Voice*, January 24, 2017, http://www.villagevoice.com/news/instead-of-building-de-blasio-s-streetcar-what-if-we-had-self-driving-uber-vans-9602278
- ITE Met Section TransTalk, Interview Series, November 2016, https://ite-metsection.org/pdf/transtalk/2016/November.pdf
- Toronto Star, May 15, 2015 – Bridging Divides: What can cities do? http://www.thestar.com/news/gta/2015/05/15/bridging-divides-what-can-cities-do.html
- The Globe and Mail, Nov 7, 2014 – Innovators in infrastructure https://www.ospe.on.ca/public/documents/news/2014-07-11-innovators-infrastructure.pdf

- Phys.org, Jun 17, 2013 – How smart technology could change public transit http://phys.org/news/2013-06-smart-technology-transit.html

SERVICE AND AFFILIATIONS

- INFORMS, Transportation Science and Logistics Society, Member, 2007-Present
  - TSL Cluster Vice Chair, 2019
  - Vice Chair, Urban Transportation SIG, 2015 – 2017
  - Chair, Urban Transportation SIG, 2017 - Present
- ITS-NY, Board of Directors, Academic Sector, 2017-2020
- TRB, Freight Transportation Planning and Logistics Committee (AT015)
  - Workshop co-organizer, "Freight Data Disaggregation for Modeling and Analysis – Recent Advances and Development of a Short Term Research Roadmap", Jan. 12, 2014, Washington, DC
  - Committee Research Coordinator (2011 – 2016)
  - Co-Chair, Subcommittee on Freight Modeling, 2012 – Present
  - Paper Review Coordinator and Paper Award Chair, 2017 – Present
- TRB, Transportation Network Modeling Committee (ADB30)
  - Past Chair of Route Choice & Spatial-Temporal Behavior Joint Subcommittee for ADB30 and ADB10
  - Appointed Member of Editorial Board, 2016 – Present
  - Appointed Member (ADB30), 2012 – Present
- TRB, Traveler Behavior and Values Committee (ADB10)
  - Past Chair of Route Choice & Spatial-Temporal Behavior Joint Subcommittee for ADB30 and ADB10
- University-level services at NYU
  - Member of Faculty Oversight Board for Online Programs
- University-level services and affiliations at Ryerson University
  - Norman Esch Engineering Innovation and Entrepreneurship Awards, selection committee member, 2014
  - Founding member, Master of Engineering Innovation and Entrepreneurship Program
  - Founding member, Master of Data Science and Analytics Program
  - Founding member, Ryerson Institute for Infrastructure Innovation, 2014 – 2015
  - Research Associate, Centre for Urban Research & Land Development, 2014 – 2015
  - Member, Ryerson Centre for Cloud and Context-Aware Computing, 2014 – 2015
- TRB, Emerging and Innovative Public Transport and Technologies Committee (AP020), Friend
- TRB, Regional Transportation Systems Management & Operations Committee, Invited Member, 2004 – 2008
- WCTR SIG B5 on Freight Transport Modelling, Founding Member (2014 – Present)
- ITE Met Section, Co-Chair Student Outreach, 2003 – 2005, Chair NY Membership, 2005 – 2006
- Editorial
  - Associate Editor, *International Journal of Transportation Science and Technology*
  - Editorial Advisory Board, *Transportation Research Part B*, 2017 – 2018
  - Guest Editor, *Transportation Research Part C* Special Issue on "Emerging Mobility Services: Supplier Strategies, Traveler Responses and Network Impacts"
  - Guest Editor, *IEEE ITS Magazine* Special Issue on Emerging Mobility Systems
  - Guest Editor, *Transportation Research Part C* Special Issue on "Advances in alternative fuel vehicle transportation systems"
  - Guest Editor, International Journal of Transportation Science & Technology Special Issue on "Urban Spatiotemporal Choice and Network Assignment"
  - Paper Coordinator, *Transportation Research Record*, Committees: ADB30, ADB10, AT015
- Scientific Advisory
  - SAE Task Force on data-management for shared mobility for Shared and Digital Mobility Committee

    - NYMTC Freight Transportation Working Group, 2017 – Present
    - Connecticut Academy of Science and Engineering: Sustainability Strategies for Connecticut's Public Transportation System – Achieving a Zero Carbon Footprint for Bus Operations – Study Committee, 2016 – Present
    - Intelligent Paratransit Project, Sponsor: TransitCenter – Advisory Group, 2016
    - TRISTAN IX, Scientific Review Committee, 2015 – 2016
- Referee
    - *Applied Mathematical Modelling*
    - *Canadian Journal of Civil Engineering*
    - *Computer-Aided Civil and Infrastructure Engineering*
    - *Energies*
    - *European Journal of Operational Research*
    - *IEEE Transactions in Intelligent Transportation Systems*
    - *International IEEE Annual Conference on Intelligent Transportation Systems*
    - *International Journal of Geographical Information Science*
    - *International Journal of Sustainable Transportation*
    - *Journal of Advanced Transportation*
    - *Journal of Eastern Asia Society for Transportation Studies*
    - *Journal of Industrial and Management Optimization*
    - *Journal of Intelligent Transportation Systems*
    - *Journal of Professional Issues in Engineering Education and Practice*
    - *Journal of Transportation Engineering*
    - *KSCE Journal of Civil Engineering*
    - *Networks*
    - *Networks and Spatial Economics*
    - *Proceedings of the EURO Working Group on Transportation*
    - *Transport Policy*
    - *Transportation Research Part A*
    - *Transportation Research Part B*
    - *Transportation Research Part C*
    - *Transportation Research Part D*
    - *Transportation Research Part E*
    - *Transportation Research Record: Journal of the Transportation Research Board*
    - *Transportation Science*
    - *Transportmetrica A*
    - *Transportmetrica B*
- Advisory for industry initiatives
    - NYCx Climate Action Challenge

OTHER QUALIFICATIONS

- Professional Engineer, NY
- Fluent in Cantonese, Proficient in Mandarin
- U.S. Citizen