

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

BUILT Lab Website: <https://wp.nyu.edu/built/>

Last Update: November 3, 2023

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

Cumulative Funding Secured as a PI/Co-PI: \$975,230 CAD, \$2,726,572 USD

Cumulative Center/Program Funding Secured as a PI/Co-PI/Senior Personnel: \$49,300,000 USD

New York University – New York, NY, USA

Institute Associate Professor, Department of Civil & Urban Engineering, Sept 2021 – Present

Assistant Professor, Department of Civil & Urban Engineering, Sept 2015 – Aug 2021

(Founding) **Deputy Director**, C2SMART Tier-1 University Transportation Center, 2016 – Present

Associated Faculty, Center for Urban Science and Progress, Dec 2015 – Present

Associated Faculty, Rudin Center for Transportation Policy & Management, Dec 2015 – Present

- 1) PON 4743 Clean Neighborhoods Challenge: *Clean Transit Access Program*, Role: co-PI, Lead PI: Dollaride; Sponsor: NYSERDA
- 2) *NYCDOT Off-Hour Deliveries*, Role: Lead co-PI; PI: Arcadis; Sponsor: NYCDOT
- 3) *Development and evaluation of an electric-charging-constrained, non-myopic, dynamic routing algorithm with synchronized transfers*, Role: PI; Sponsor: MOIA/Volkswagen
- 4) *Bureau of Transportation Statistics (BTS) Analytical Support Services IDIQ*, Role: National Expert, PI: Weris; Sponsor: BTS; 8/21 – 8/24
 - a. Task Order #2: Federal Support for Local Decision-Making
- 5) *Understanding traffic behavioral responses to emergency vehicle deployments*, Role: PI, Sponsor: University Research Challenge Fund 2020
- 6) *M-EVRST (Multimodal Electric Vehicle demand ReSponsive Transport)*, Role: Collaborator, Sponsor: FNR
- 7) *Capital Region Mobility Hubs*, Role: Co-PI, PI: CALSTART; Sponsor: NYSERDA; SP:20-1155
- 8) *EAGER/Collaborative Research: Enable elastic capacity for transportation infrastructure through a transmodal modular autonomous vehicle system*, Role: Co-PI, Sponsor: NSF; [CMMI-2022967](#)
- 9) *New York State Department of Transportation On-Call Agreement*, Role: Senior Personnel; Sponsor: NYSDOT

- a. *Statewide Mobility Services Program Strategic Procurement Planning*, Role: PI, Sponsor: NYSDOT, #SR-20-02
- 10) *Synthesis of real time public transit route deviation operational policies*, Role: PI, Sponsor: Federal Transit Administration, Award No. NY-2019-069-01-00
- 11) *Eisenhower Graduate Transportation Fellowship*
 - a. PI: Chetan Sharma, Role: Advisor; Sponsor: US DOT
 - b. PI: Haggai Davis III, Role: Advisor; Sponsor: US DOT
 - c. PI: Haoran Su, Role: Advisor; Sponsor: US DOT
 - d. PI: Ziyi Ma, Role: Advisor; Sponsor: US DOT
 - e. PI: Heba Omholt, Role: Advisor; Sponsor: US DOT
- 12) *CAREER: Urban Transport Network Design with Privacy-Aware Agent Learning*; Role: PI; Sponsor: NSF; Program: CAREER (CMMI-CIS), Industry partners (data sharing): BestMile, Via; Award No. [CMMI-1652735](#)
- 13) *Region 2 UTC*; Role: Co-PI; Sponsor: US DOT; Program: Regional University Transportation Center
- 14) *C2SMARTER: Connected Cities for Smart Mobility Towards Accessible and Resilient Transportation to Equitably Reduce Congestion*; Role: Co-PI; Sponsor: US DOT; Program: Tier-1 University Transportation Center
 - a. *NY Statewide Behavioral Equity Impact Decision Support Tool with Replica*, Role: PI; Sponsor: C2SMART; Industry partner: Replica; 3/22 – 2/23
 - b. *One-to-Many Simulator Interface with Virtual Test Bed for Equitable Tech Transfer*, Role: Lead PI; 3/22 – 2/23
 - c. *Autonomous Vehicle Good Citizenry Standard*, Role: Co-PI; 3/21 – 2/22
 - d. *Quantifying and visualizing city truck route network efficiency using a virtual test bed*, Role: Lead PI; Industry partner: NYC DOT, 3/21 – 2/22
 - e. *Urban Microtransit Cross-sectional Study for Service Portfolio Design*, Role: Lead PI; Industry partner: Via; 3/20 – 2/21
 - f. *Development and tech transfer of multi-agent virtual simulation test bed ecosystem*, Role: Lead PI; 3/19 – 2/20
 - g. *Simulation and analytical evaluation of bus redesign alternatives in transit deserts with ride-hail presence*, Role: Lead PI; 3/19 – 2/20
 - h. *Dual Rebalancing Strategies for Electric Vehicle Carsharing Operations*, Role: Lead PI; Sponsor: C2SMART UTC; Industry partner: BMW ReachNow; 3/18 – 2/19
 - i. *Development of an open source multi-agent virtual simulation test bed for evaluating emerging transportation technologies and policies*, Role: Lead PI; 3/18 – 2/19
 - j. *City-scalable Destination Recommender System for On-demand Senior Mobility*, Role: PI; 3/17 – 2/18
- 15) *Stable matching of service tours to design cooperative policies for transport infrastructure systems*; Role: PI; Sponsor: NSF; Program: CMMI-CIS, Award No. [CMMI-1634973](#)

Ryerson University – Toronto, Ontario, Canada

Assistant Professor, Department of Civil Engineering, June 2012 – Aug 2015

Tier-2 Canada Research Chair in Transportation Systems Engineering

Completed Grants

- 1) *Agent-based decision support system for a flexible transit service pilot*; PI, 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, 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, Sponsor: Ryerson Centre for Urban Research and Land Development

- 4) *Dynamic Door-to-Transit Station 'Shared' E-Taxi Serving Smart Community*, PI, Sponsor: MITACS, Program: Accelerate
- 5) *Multimodal Systems Design with Network Interactions*, PI, Sponsor: NSERC, Program: Discovery Grants (RGPIN/435172-2013) (with **Early Career Researcher Supplement**)
- 6) Tier-2 CRC: *Design of Smarter Urban Logistics Systems*, PI, Sponsor: NSERC (#950-228458)
- 7) Leaders Opportunity Fund: *Testbed for Cyber-Physical Urban Logistics Systems*, PI, Sponsor: Canada Foundation for Innovation and Ministry of Economic Development and Innovation
- 8) *California Statewide Freight Forecasting Model* (Subcontract from UCI), PI, 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

Top 2% of scientists worldwide in Logistics & Transportation subfield career-wide ([2022](#), [2023](#))

Top 2% of scientists worldwide in Logistics & Transportation subfield by [Scopus Citation Impact in 2019-2022](#)

Transportation Science Meritorious Service Award 2022

NSF CAREER award, 2017-2021

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](https://orcid.org/0000-0002-6471-3419), supervised authors underlined)

- 1) Liu, B., Chow, J.Y.J., On-demand Mobility-as-a-Service platform assignment games with guaranteed stable outcomes. *Transportation Research Part B*, under revision.
- 2) Yoon, G., Chow, J.Y.J., A sequential transit network design algorithm with optimal learning under correlated beliefs. *Transportation Research Part C*, SI: TRISTAN XI, under revision.
- 3) Rath, S., Chow, J.Y.J., 2024. A deep real options policy for sequential service region design and timing. *Computers and Operations Research* 161, 106458.
- 4) Yang, H., Landes, H., Chow, J.Y.J., 2023. A large-scale analytical residential parcel delivery model evaluating greenhouse gas emissions, COVID-19 impact, and cargo bikes. *IJTST*, in press, doi: [10.1016/j.ijst.2023.08.002](https://doi.org/10.1016/j.ijst.2023.08.002).
- 5) Fu, Z., Chow, J.Y.J., 2023. Dial-a-ride problem with modular platooning and en-route transfers. *Transportation Research Part C* 152, 104191.
- 6) Pantelidis, T., Chow, J. Y. J., Cats, O., 2023. Mobility operator fleet-sharing contract design to risk-pool against network disruptions, *Transportmetrica A*, in press, doi: [10.1080/23249935.2023.2210229](https://doi.org/10.1080/23249935.2023.2210229).
- 7) Rath, S., Liu, B., Yoon, G., Chow, J.Y.J., 2023. Microtransit deployment portfolio management using simulation-based scenario data upscaling, *Transportation Research Part A*, 169, 103584.
- 8) Su, H., Zhong, Y.D., Chow, J.Y.J., Dey, B., Jin, L., 2023. EMVLight: a multi-agent reinforcement learning framework for an emergency vehicle decentralized routing and traffic signal control system. *Transportation Research Part C*, 146, 103955.
- 9) Abou Kasm, O., Diabat, A., Chow, J. Y. J., 2023. Simultaneous operation of next-generation and traditional quay cranes at container terminals. *EJOR* 308(3), 1110-1125.
- 10) Ren, X., Chow, J.Y.J., 2022. A random-utility-consistent machine learning method to estimate agents' joint activity scheduling behavior from ubiquitous data. *Transportation Research Part B* 166, 396-418.
- 11) Rath, S., Chow, J.Y.J., 2022. Single-allocation choice-constrained air taxi skypport location problem for airport access. *Journal of Air Transport Management*, 105, 102294.
- 12) Liu, Q., Chow, J. Y. J., 2022. Efficient and stable data-sharing in a public transit oligopoly as a cooperative game, *Transportation Research Part B* 163, 64-87.
- 13) Scalise, P., Chow, J. Y. J., 2022. Paratransit shared-ride capacity design with infectious disease contact exposure. *Transportation Research Record*, 2676(10), 104-118.
- 14) Yoon, G., Chow, J. Y. J., Rath, S., 2022. A simulation sandbox to compare fixed-route, flexible-route transit, and on-demand microtransit system designs. *KSCE Journal of Civil Engineering*, SI: Future Urban Mobility with MaaS, 26, 3043-3062.
- 15) Rath, S., Chow, J. Y. J., 2022. Worldwide city transport typology prediction with sentence-BERT based supervised learning via Wikipedia. *Transportation Research Part C* 139(3), 103661.
- 16) Liu, Q., Chow, J. Y. J., 2022. A schedule-based dynamic transit passenger flow estimator using stop count data. *Transportmetrica B*, 11(1), 231-256.
- 17) Liu, B., Pantelidis, T.P., Tam, S., Chow, J. Y. J., 2023. An electric vehicle charging station access equilibrium model with M/D/c queueing. *IJST*, 17(3), 228-244.
- 18) Dong, X., Chow, J. Y. J., Waller, S. T., Rey, D., 2022. A chance-constrained dial-a-ride problem with utility-maximizing demand and multiple pricing structures. *Transportation Research Part E*, 158, 102601.
- 19) Fu, Z., Chow, J. Y. J., 2022. The pickup and delivery problem with dynamic synchronized transfers. *Transportation Research Part E*, 157, 102562.
- 20) Ma, Z., Chow, J. Y. J., 2022. Transit network frequency setting with multi-agent simulation to capture activity-based mode substitution. *Transportation Research Record* 2676(4), 41-57.

- 21) Yoon, G., Dmitriyeva, A., Fay, D., Chow, J. Y. J., 2022. Effect of routing constraints on learning in contextual bandit mobility-on-demand destination recommendation systems, *IEEE Transactions on ITS*, 23(5), 4021-4036.
- 22) Xu, S. J., Chow, J. Y. J., 2022. Online route choice modeling for Mobility-as-a-Service networks with non-separable, congestible link capacity effects. *IEEE Transactions of ITS*, 23(8), 11518-11527.
- 23) Wang, D., Tayarani, M., He, B. Y., Gao, J., Chow, J. Y. J., Gao, H. O., Ozbay, K., 2021. Mobility in post-pandemic economic reopening under social distancing guidelines: congestion, emissions, and contact exposure in public transit. *Transportation Research Part A* 153, 151-170.
- 24) Liu, B., Bade, D., Chow, J. Y. J., 2021. A bike count forecast model with multimodal network connectivity measures. *Transportation Research Record*, 2675(7), 320-334.
- 25) Lee, M., Chow, J. Y. J., Yoon, G., He, B. Y., 2021. Forecasting e-scooter substitution of direct and access trips by mode and distance. *Transportation Research Part D* 96, 102892.
- 26) Li, M., Chow, J. Y. J., 2021. School bus routing problem with mixed ride, heterogeneous fleet, and mixed load. *Transportation Research Record*, 2675(7), 467-479.
- 27) Dakic, I., Yang, K., Menendez, M., Chow, J. Y. J., 2021. On the design of an optimal flexible bus dispatching system with modular bus units: Using the three-dimensional Macroscopic Fundamental Diagram. *Transportation Research Part B* 148, 38-59.
- 28) Li, L., Pantelidis, T. P., Chow, J. Y. J., Jabari, S. E., 2021. A real-time dispatching strategy for shared automated electric vehicles with performance guarantees. *Transportation Research Part E*, SI: ISTTT24, 152, 102392.
- 29) Correa, D., Chow, J. Y. J., Ozbay, K., 2021. Spatial dynamic matching equilibrium models of New York City taxi and Uber markets. *Journal of Transportation Engineering, Part A: Systems* 147(9), 04021048.
- 30) Pantelidis, T., Li, L., Ma, T. Y., Chow, J. Y. J., Jabari, S. E., 2022. A node-charge, graph-based online carshare rebalancing policy with capacitated electric charging. *Transportation Science*, 56(3), 654-676.
- 31) Wang, D., He, B. Y., Gao, J., Chow, J. Y. J., Ozbay, K., Iyer, S., 2021. Impact of COVID-19 behavioral inertia on reopening strategies for NYC transit, *IJTST*, SI: Transport Systems and Pandemics, 10(2), 197-211.
- 32) He, B. Y., Chow, J. Y. J., 2021. Gravity model of passenger and mobility fleet origin-destination patterns with partially observed service data. *Transportation Research Record*, 2675(6), 235-253.
- 33) Xu, S. J., Xie, Q., Chow, J. Y. J., Liu, X., 2021. Empirical validation of network learning with taxi GPS data from Wuhan, China. *IEEE ITS Magazine* 13(1), 42-58.
- 34) He, B. Y., Zhou, J., Ma, Z., Wang, D., Sha, D., Lee, M., Chow, J. Y. J., Ozbay, K. 2021. A validated multi-agent simulation test bed to evaluate congestion pricing policies on population segments by time-of-day in New York City. *Transport Policy* 101, 145-161.
- 35) Caros, N. S., Chow, J. Y. J., 2021. Day-to-day market evaluation of last-mile transit operations using modular autonomous vehicles with en-route transfers. *Transportmetrica B* 9(1), 109-133.
- 36) Ma, T. Y., Chow, J. Y. J., Klein, S., Ma, Z., 2021. A user-operator assignment game with heterogeneous user groups for empirical evaluation of a microtransit service in Luxembourg. *Transportmetrica A*, 17(4), 946-973.
- 37) He, B. Y., Zhou, J., Ma, Z., Chow, J. Y. J., Ozbay, K., 2020. Evaluation of city-scale built environment policies in New York City using an emerging mobility-accessible synthetic population, *Transportation Research Part A* 141, 444-467.
- 38) Pantelidis, T., Chow, J. Y. J., Rasulkhani, S., 2020. A many-to-many assignment game and stable outcome algorithm to evaluate collaborative Mobility-as-a-Service platforms, *Transportation Research Part B* 140, 79-100.
- 39) Yoon, G., Chow, J. Y. J., 2020. Contextual bandit-based sequential transit route design under demand uncertainty, *Transportation Research Record*, 2674(5), 613-625.
- 40) Yoon, G., Chow, J. Y. J., 2020. Unlimited-ride bike-share pass pricing revenue management for casual riders using only public data. *IJTST* 9(2), 159-169.
- 41) 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.
- 42) He, B. Y., Chow, J. Y. J., 2020. Optimal privacy control for transport network data sharing. *Transportation Research Part C*, SI: ISTTT23, 113, 370-387.

- 43) Xu, S. J., **Chow, J. Y. J.**, 2020. A longitudinal study of bike infrastructure impact on bike-share system performance in New York City. *International Journal of Sustainable Transportation* 14(11), 886-902.
- 44) 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.
- 45) 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*, 2673(10), 673-682.
- 46) 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.
- 47) 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.
- 48) 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.
- 49) 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.
- 50) Xu, S. J., Nourinejad, M., Lai, X., **Chow, J.Y.J.**, 2018. Network learning via multi-agent inverse transportation problems, *Transportation Science*, SI: TRISTAN IX, 52(6), 1347-1364.
- 51) 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.
- 52) 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.
- 53) 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.
- 54) 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.
- 55) Mendes, L.M., Bennassar, 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.
- 56) 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.
- 57) 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.
- 58) 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.
- 59) **Chow, J.Y.J.**, 2016. Dynamic UAV-based traffic monitoring as a stochastic arc-inventory routing policy, *IJTST*, SI: Unmanned Aerial Vehicles, 5(3), 167-185.
- 60) 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.
- 61) 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.
- 62) 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.
- 63) 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.
- 64) 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.
- 65) **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.

- 66) 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.
- 67) 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.
- 68) 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.
- 69) 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.
- 70) 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.
- 71) 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.
- 72) Chow, J.Y.J., 2014. Policy analysis of third party electronic coupons for public transit fares. *Transportation Research Part A* 66, 238-250.
- 73) 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.
- 74) 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.
- 75) 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.
- 76) 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.
- 77) Chow, J.Y.J., 2014. Activity-based travel scenario analysis with routing problem reoptimization. *Computer-Aided Civil and Infrastructure Engineering* 29(2), 91-106.
- 78) 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.
- 79) 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.
- 80) Kang, J.E., Chow, J.Y.J., Recker, W.W., 2013. On activity-based network design problems. *Transportation Research Part B* 57, 398-418.
- 81) 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.
- 82) Chow, J.Y.J., 2013. On observable chaotic maps for queueing analysis. *Transportation Research Record* 2390, 138-147.
- 83) 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.
- 84) Chow, J.Y.J., Liu, H., 2012. Generalized profitable tour problems for an online activity routing system. *Transportation Research Record* 2284, 1-9.
- 85) 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.
- 86) 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.
- 87) Chow, J.Y.J., Regan, A.C., 2011. Network-based real option models. *Transportation Research Part B* 45(4), 682-695.
- 88) Chow, J.Y.J., Regan, A.C., 2011. Real option pricing of network design investments. *Transportation Science*, 45(1), 50-63.
- 89) 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.

- 90) Tok, Y., Zhao, M., **Chow, J.Y.J.**, Ritchie, S.G., Arkipov, D.I., 2011. An on-line data repository for statewide freight planning and analysis. *Transportation Research Record* 2246, 121-129.
- 91) **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.
- 92) **Chow, J.Y.J.**, Regan, A.C., Arkipov, D.I., 2010. Faster converging global heuristic for continuous network design using radial basis functions. *Transportation Research Record* 2196, 102-110.
- 93) **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

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

BOOK CHAPTERS

- 96) **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

- 97) Davis, H., III, Landes, H., Namdarpour, F., Yang, H., **Chow, J.Y.J.**, Ozbay, K., 2024. Truck tour synthesis for multiagent simulations from public data. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 98) Liu, B., Watling, D., **Chow, J.Y.J.**, 2024. Stackelberg pricing in Mobility-as-a-Service platforms with stochastic coalitional matching. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 99) Namdarpour, F., Liu, B., Kuenhel, N., Zwick, F., **Chow, J.Y.J.**, 2024. On non-myopic internal transfers in large-scale ride-pooling systems. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 100) Sharma, C., **Chow, J.Y.J.**, 2024. Reducing U.S. transit costs: an empirical review and comparative case study of Portland, Manchester rail systems. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 101) Ren, X., **Chow, J.Y.J.**, 2024. Choice-based service region assortment problem with statewide synthetic data: towards equitable transportation design. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 102) Fu, Z., **Chow, J.Y.J.**, 2024. Modular platoon-based vehicle-to-vehicle electric charging problem. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 103) Ren, X., **Chow, J.Y.J.**, 2024. Group level agent-based mixed logit for nonparametric estimation of k-modal taste heterogeneity with a ubiquitous data set. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 104) Yang, H., Du, Y., Le, T.V., **Chow, J.Y.J.**, 2024. Analytical model for large-scale design of sidewalk delivery robot systems. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 105) Giordano, M., **Chow, J.Y.J.**, 2024. An e-scooter service region and fleet allocation design problem with elastic demand. Proc. 103rd Annual Meeting of the TRB, Washington, DC.
- 106) Ren, X., **Chow, J.Y.J.**, 2023. Choice-based service region assortment problem: equitable design with statewide synthetic data. In: *Proc. IEEE ITSC*, Bilbao, Spain.
- 107) Yang, H., **Chow, J.Y.J.**, 2023. A large-scale analytical residential parcel delivery model with cargo bike substitution. *12th Intl Conference on City Logistics*, Bordeaux, France.
- 108) Rath, S., **Chow, J.Y.J.**, 2023. A recurrent neural network-reinforced real options policy for sequential service region design and timing. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 109) Liu, Q., **Chow, J.Y.J.**, 2023. A generalized network level disruption resource allocation model for urban public transport systems. Proc. 102nd Annual Meeting of the TRB, Washington, DC.

- 110) Ren, X., Chow, J.Y.J., 2023. A random-utility-consistent machine learning method to estimate agents' joint activity scheduling choice from a ubiquitous data set. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 111) Yang, H., Landes, H., Chow, J.Y.J., 2023. A large-scale analytical residential parcel delivery model with cargo bike substitution in New York City. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 112) Wang, D., Tayarani, M., He, B. Y., Gao, J., Gao, H.O., Ozbay, K., Chow, J.Y.J., 2023. Transportation electrification for climate action goals in the post-pandemic: an agent-based modeling approach. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 113) Liu, B., Namdarpour, F., Chow, J.Y.J., 2023. A zone districting problem with sample data margin of error constraints for equity analysis. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 114) Yoon, G., Chow, J.Y.J., 2023. An optimal learning system with correlated beliefs for sequential transit network design. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 115) Liu, B., Chow, J.Y.J., 2023. A mobility-as-a-service platform design game for fixed-route transit and mobility-on-demand services with stability guarantee. Proc. 102nd Annual Meeting of the TRB, Washington, DC.
- 116) Fu, Z., Chow, J.Y.J., 2022. Modular autonomous vehicle routing with synchronized transfers and vehicle platooning. Proc. 101st Annual Meeting of the TRB, Washington, DC.
- 117) Scalise, P., Chow, J.Y.J., 2022. Paratransit shared-ride capacity design with infectious disease contact exposure. Proc. 101st Annual Meeting of the TRB, Washington, DC.
- 118) Liu, Q., Chow, J.Y.J., 2022. Efficient and stable data-sharing in a public transit oligopoly as a cooperative game. Proc. 101st Annual Meeting of the TRB, Washington, DC.
- 119) Rath, S., Liu, B., Yoon, G., Chow, J.Y.J., 2022. Microtransit deployment portfolio management using simulation-based scenario data upscaling. Proc. 101st Annual Meeting of the TRB, Washington, DC.
- 120) Rath, S., Chow, J.Y.J., 2022. Worldwide city transport typology prediction with sentence-BERT based supervised learning via Wikipedia. Proc. 101st Annual Meeting of the TRB, Washington, DC.
- 121) He, B. Y., Zhou, J., Ma, Z., Wang, D., Sha, D., Lee, M., Chow, J. Y. J., Ozbay, K. 2021. A validated multi-agent simulation test bed to evaluate congestion pricing policies on population segments by time-of-day in New York City. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 122) He, B. Y., Chow, J. Y. J., 2021. Entropy maximizing gravity model of passenger and mobility fleet origin-destination patterns with partially observed service data. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 123) Ma, Z., Chow, J.Y.J., 2021. Transit network design with multi-agent simulation to capture activity-based mode competition. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 124) Liu, B., Bade, D., Chow, J.Y.J., 2021. A bike count forecast model with multimodal network connectivity measures. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 125) Li, M., Chow, J. Y. J., 2021. School bus routing problem with mixed ride, heterogeneous fleet, and mixed load. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 126) Yoon, G., Rath, S., Chow, J.Y.J., Scalise, P., 2021. Advances in fixed route transit, semi-flexible transit, and microtransit toward Mobility-as-a-Service. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 127) Liu, B., Chow, J.Y.J., 2021. A stochastic user equilibrium model and solution method for links with congestible capacities. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 128) Zhou, J., Chow, J.Y.J., 2021. Surrogate-based optimization of activity-based connected subgraph problem for robotic taxi fleet service region design. Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 129) Fu, Z., Chow, J.Y.J., and Ma, T.Y., 2021. The pickup and delivery problem with dynamic synchronized transfers, Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 130) Liu, Q., Chow, J.Y.J., 2021. A schedule-based dynamic transit passenger flow estimator using stop count data, Proc. 100th Annual Meeting of the TRB, Washington, DC.
- 131) Pantelidis, T., Chow, J. Y. J., Cats, O., 2021. Mobility operator resource-pooling contract design to hedge against network disruptions, Proc. 100th Annual Meeting of the TRB, Washington, DC.

- 132) Ma, T.Y., **Chow, J.Y.J.**, Klein, S., Ma, Z. (2020). A stochastic user-operator assignment game for microtransit service evaluation: a case study of Kussbus in Luxembourg. Proc. Forum on Integrated and Sustainable Transportation Systems, Delft, The Netherlands, doi: 10.1109/FISTS46898.2020.9264887.
- 133) Caros, N. S., **Chow, J. Y. J.**, 2020. Day-to-day market evaluation of last-mile transit operations using modular autonomous vehicles with en-route transfers, 99th Annual Meeting of the TRB.
- 134) Xu, S. J., Xie, Q. J., **Chow, J. Y. J.**, Liu, X., 2020. Empirical validation of network learning with taxi GPS data from Wuhan, China, 99th Annual Meeting of the TRB.
- 135) Pantelidis, T., Rasulkhani, S., **Chow, J.Y.J.**, 2020. A path-based many-to-many assignment game to model Mobility-as-a-Service market networks, 99th Annual Meeting of the TRB.
- 136) Xu, S. J., **Chow, J. Y. J.**, Gao, S., 2020. Online route choice modeling for Mobility-as-a-Service networks with non-separable, congestible link capacity effects, 99th Annual Meeting of the TRB.
- 137) Rasulkhani, S., Pantelidis, T., **Chow, J. Y. J.**, 2020. 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 TRB.
- 138) Lee, M., **Chow, J.Y.J.**, Yoon, G., He, B.Y., 2020. Forecasting e-scooter competition with direct and access trips by mode and distance in New York City, 99th Annual Meeting of the TRB.
- 139) Dakic, I., Yang, K., Menendez, M., **Chow, J.Y.J.**, 2020. Flexible bus dispatching system with modular and fully automated bus units, 99th Annual Meeting of the TRB.
- 140) 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.
- 141) Jung, J., **Chow, J. Y. J.**, 2019. Large-scale evaluation of fleet repositioning strategies for dynamic rideshare in New York City, SAE conference.
- 142) He, B.Y., **Chow, J. Y. J.**, 2019. Optimal privacy control for transport network data sharing, ISTTT23, Lausanne, Switzerland.
- 143) 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.
- 144) 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.
- 145) 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.
- 146) 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.
- 147) 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.
- 148) 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.
- 149) 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.
- 150) 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.
- 151) 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.

- 152) 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.
- 153) 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.
- 154) 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.
- 155) Mendes, L.M., Bennassar, 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.
- 156) 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.
- 157) 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.
- 158) 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.
- 159) **Chow, J.Y.J.**, Djavadian, S., 2015. Activity-based market equilibrium for capacitated multimodal transport systems, *Transportation Research Procedia*, ISTTT 21, 7, 2-23.
- 160) **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.
- 161) 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.
- 162) 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.
- 163) 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.
- 164) 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.
- 165) **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.
- 166) 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.
- 167) **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.
- 168) **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.
- 169) 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.

- 170) 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.
- 171) **Chow, J.Y.J.**, 2013. On observable chaotic maps for queueing analysis. *Proc. 92nd Annual Meeting of the Transportation Research Board*, Washington DC.
- 172) 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.
- 173) **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.
- 174) **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.
- 175) 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.
- 176) **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.
- 177) **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.
- 178) **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.
- 179) 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.
- 180) 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

- 181) [NY Statewide Behavioral Equity Impact Decision Support Tool with Replica](#), PI: J.Y.J. Chow; Sponsor: C2SMART.
- 182) [COVID-19's Effect on Transportation: Developing a Public COVID-19 Data Dashboard](#), PI: K. Ozbay, Co-PIs: J.Y.J. Chow, J. Gao; Sponsor: C2SMART.
- 183) [AVs in NYC: a Policy Framework](#), PI: S. Kaufman, Co-PI: J.Y.J. Chow; Sponsor: C2SMART.
- 184) [Urban Microtransit Cross-Sectional Study for Service Portfolio Design](#), PI: J.Y.J. Chow, Co-PI: Rae Zimmerman; Sponsor: C2SMART UTC, <https://rosap.ntl.bts.gov/view/dot/60555>.
- 185) [Multi-agent Simulation-based Virtual Test Bed Ecosystem: MATSim-NYC](#), PI: J.Y.J. Chow, Co-PI: Kaan Ozbay; Sponsor: C2SMART UTC.
- 186) [Evaluation of Bus Redesign Alternatives in Transit Deserts under Ride-Hail Presence](#), PI: J.Y.J. Chow; Sponsor: C2SMART UTC.
- 187) [Spectrum of Public Transit Operations: From Fixed Route to Microtransit](#), PI: J.Y.J. Chow; Sponsor: FTA.
- 188) [Dual Rebalancing Strategies for Electric Vehicle Carsharing Operations](#), PI: J.Y.J. Chow, co-PI: S.E. Jabari; Sponsor: C2SMART UTC.
- 189) [City-scalable Destination Recommender System for On-demand Senior Mobility](#), PI: J.Y.J. Chow; Sponsor: C2SMART UTC.
- 190) [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).

- 191) *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.
- 192) *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.
- 193) *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.
- 194) *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.
- 195) *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, F'2020)
- TR-GY 8013: Sustainable Logistics and Freight (co-taught with Dr. Catrin Lammgård) (F'2016)
- TR-GY 7133: Public Transport (S'2016, S'2018, S'2020, F'2021)
- TR-GY 7013: Urban Transport & Logistics Systems (F'2015, F'2016, F'2018, F'2019, F'2020, F'2021, F'2022, F'2023)
- CE-UY 3303: Traffic Engineering (S'2017, S'2018, F'2022)
- CE-UY 3373: Transportation Systems Analytics (S'2019, S'2020, S'2021, S'2022)

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: Transportation Design Engineer, Stratum Logics

PhD Students (10 completed)

- [Hannah Bonestroo](#), 2023 – Present
 - [Hai Marshall Yang](#), 2021 – Present
 - [Farnoosh Namdarpour](#), 2021 – Present
 - [Xiyuan Ren](#), 2020 – Present
 - [Haggai Davis, III](#), 2020 – Present
 - [Bingqing Chloe Liu](#), 2019 – Present
 - [Jesse Fu](#), 2018 – 2023, Topic: “Operation design for modular electric microtransit”, Position: Revenue Management Operations Research, American Airlines
1. [Qi Liu](#), 2017 – 2022, Topic: “Data use and sharing in public transit systems”, Position: Postdoctoral Fellow, Tongji University
 2. [Gyugeun Yoon](#), 2017 – 2022, Topic: “Route design with optimal learning”, Position: Assistant Professor, Seoul National University
 3. [Srushiti Rath](#), 2020 – 2022, Topic: “Data-driven Decision Support Tools for Large-Scale Strategic Deployment of Emerging Mobility Services”; Position: Research Scientist, Amazon
 4. [Yueshuai He](#), 2016 – 2020, Topic: “Urban transportation analysis with operator data sharing considerations”; Position: Project Scientist, UCLA
 5. [Jinkai Zhou](#), 2015 – 2020, Topic: “Autonomous vehicle fleet operations and planning with user activity scheduling constraints”
 6. [Ted Pantelidis](#), 2017 – 2020, Topic: “Network and mechanism design for collaborative transportation systems”; Position: Research Scientist, Amazon
 7. [Saeid Rasulkhani](#), 2016 – 2020, Topic: “Stable matching evaluation and platform design for Mobility-as-a-Service markets”; Position: Senior Data Scientist, Walmart
 8. [Susan Jia Xu](#), 2015 – 2019, Topic: “Learning in capacitated multimodal networks over time”; Position: Transportation Modeler, SANDAG
 9. [Shadi Djavadian](#), 2013 – 2016, Topic: “Evaluation methods of dynamic flexible transportation systems”, Position: New Mobility Modeling Engineer, Ford Motor Company
 10. [Hamid Reza Sayarshad](#), 2012 – 2015, Topic: “Smart transit dynamic optimization and informatics”

MS/MASc/MEng Students with theses (12 completed)

1. [Patrick Scalise](#), 2021, MS in Transportation Planning and Engineering, Topic: “Paratransit operations design with disease contact exposure”; Position: Transportation Planner, Stantec
2. [Nicolas Gomez](#), 2020, MS in Transportation Planning and Engineering, Topic: “An electric vehicle scheduling problem to plan for electric bus fleet conversion”
3. [Shams Sahar](#), 2020, MS in Transportation Planning and Engineering, Topic: “Behavioral responses to emergency vehicle warning siren”; Position: Urban Infrastructure Consultant, Afghanistan Green Social Association (AGSA)
4. [Mengyun Mandy Li](#), 2020, MS in Transportation Planning and Engineering, Topic: “School bus routing problem with mixed ride, heterogeneous fleet, and mixed load”; Position: Transportation Planner, Stantec
5. [Srushiti Rath](#), 2020, Topic: “Infrastructure planning for urban air mobility”; Position: PhD student, NYU
6. [Nick Caros](#), 2019, Topic: “Dynamic operations of a mobility service with en-route transfers”; Position: PhD student, MIT
7. [Lior Melnick](#), 2018, UTRC Graduate Fellow, Topic: “A dynamic ridesharing routing algorithm with en-route transfers”; Position: Transportation Engineer – Data Lead, VHB
8. [Ahmed Amer](#), 2015, Topic: “A downtown on-street parking model with urban truck delivery effects”; Position: Project Manager, R.V. Anderson Associates Ltd
9. [Rishi Lukka](#), 2015, Topic: “Development of TransCAD/GISDK algorithm to creating GTFS transit networks to measure regional access”; Position: Americas Region Rail Skills Manager, Arup
10. [Mohammad S. Bari](#), 2014, “Creating a calibrated traffic assignment model for freight data”; Position: Transportation Engineer, BA Consulting

11. [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
12. [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

- [Hector Landes](#), 2021-2023, MS in Transportation Planning and Engineering
- [Ziyi Ma](#), 2020, MS in Transportation Planning and Engineering, Eisenhower Transportation Graduate Fellow, Position: Research Engineer II, BlueHalo
- [Mina Lee](#), 2019 – 2021, MS in Computer Science, Position: Software Developer, Microsoft
- [Christian Moscardi](#), 2018, MS in Applied Urban Science and Informatics (CUSP), Position: Data Scientist, U.S. Census Bureau
- [Heba Omholt](#), 2017 – 2018, MS in Transportation Planning and Engineering, Eisenhower Transportation Graduate Fellow, Position: Civil Analyst, Kimley-Horn
- [Assel Dmitriyeva](#), 2017 – 2018, MS in Interactive Telecommunications Program (Tisch), Position: Data Analyst, Curb Mobility
- [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 Bennassar](#), 2016, MS in Transportation Management, Position: Transportation Engineer, EMT – Palma
- [Maria Alejandra Pardo](#), 2016, MS in Transportation Planning and Engineering, Position: Public Transportation Advisor, Secretaria Distrital de Movilidad (Bogota)
- [Matthew Urbanek](#), 2016, MS in Applied Urban Science and Informatics (CUSP), Position: Director of Operations Strategy and Engineering, JetBlue

Ph.D. Dissertation Committee Member (22 completed)

1. [Selin Ataç](#), PhD in Civil and Environmental Engineering, École Polytechnique Fédérale de Lausanne, 2023: “Demand-based operations of vehicle sharing systems”
2. [Zilin Bian](#), PhD in Transportation Planning and Engineering, New York University, 2023: “Data-driven predictive artificial intelligence and machine learning models for effective management of traffic incidents”
3. [Fan Zuo](#), PhD in Transportation Planning and Engineering, New York University, 2023: “Rethinking of learning mechanism in mobility context: a human and artificial intelligence mixture approach””; Position: Postdoctoral Associate, NYU
4. Dang Khoa Vo, PhD in Civil and Environmental Engineering, The Hong Kong Polytechnic University, 2022: “Modeling household joint activity-travel choices in multimodal transportation networks: an activity-based network equilibrium approach”
5. [Jonas Hatzenbühler](#), PhD in Transport Science, KTH Royal Institute of Technology, 2022: “Simulation and optimization of innovative urban transportation systems”
6. [Di Yang](#), PhD in Transportation Planning and Engineering, New York University, 2022: “Big Data-driven transportation safety analytics in the era of smart and connected cities””; Position: Assistant Professor, Morgan State University
7. [Stephen Stark](#), PhD in Transportation Planning and Engineering, New York University, 2022: “Statistical analysis in support of trackway asset management using low-level nonconformance rates””; Position: EAM Practice Lead, Marine Tiger Technologies
8. [Ding Wang](#), PhD in Transportation Planning and Engineering, New York University, 2021: “A transportation network modeling and simulation study to efficiently respond to hurricanes and pandemics in New York City””; Position: Research Scientist, Shanghai AI Laboratory

9. [Jiayun Sun](#), PhD in Transportation Planning and Engineering, New York University, 2021: “Evaluating transportation resilience and equity in the era of sea level rise”; Position: Senior Analyst, RSG
10. [Dianchao Lin](#), PhD in Transportation Planning and Engineering, New York University, 2021: “Systems of micro-payments and utility transfer for priority management: lane-changing and intersection control”; Position: Assistant Professor, Fuzhou University
11. [Li Li](#), PhD in Transportation Planning and Engineering, New York University, 2021: “Algorithms for real-time optimization of transport operations in urban networks”, Position: Assistant Professor, Fuzhou University
12. [Diego Estuardo Correa Barahona](#), PhD in Transportation Planning and Engineering, New York University, 2021: “Assessing the impact of ridesourcing transportation services on mobility and the taxi industry in global cities by leveraging big data”, Position: Assistant Professor, Universidad Católica de Cuenca
13. [Sai Prasanth Krishnamoorthy](#), PhD in Mechanical Engineering, New York University, 2020: “Decentralization of homogeneous multi-robot systems using distributed ledgers and its applications”, Position: Robotics Simulation Engineer, Honeywell
14. [Omar Abou-Kasm](#), PhD in Transportation Planning and Engineering, New York University, 2020: “Mathematical programming for port quayside operations management”; Position: Assistant Professor, St. Mary’s University
15. [Jingqin Jannie Gao](#), PhD in Transportation Planning and Engineering, New York University, 2020: “Leveraging big data and machine learning to detect and evaluate the impacts of short-term traffic disruptions in an urban transportation system”, position: Senior Research Associate, New York University
16. [Ilija 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)
17. [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
18. [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
19. [Abdullah Kurkcu](#), PhD in Transportation Planning and Engineering, New York University, 2018: “Connected Transportation Systems: Next Generation Traffic Simulation and Data Collection Tools and Techniques”, Position: Lead Traffic Modeler, Ulteig
20. [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
21. [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
22. [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
23. [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
24. [Miyuan Zhao](#), PhD in Transportation Science, University of California, Irvine, 2012: “Inventory-based Temporal Modeling for Freight Networks”; Position: Product Experience Analyst, Facebook

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) Keynote speaker, TU Delft Transport Institute Workshop: Dynamic and real-time decisions for emerging transport systems. **TU Delft**, Apr 4-5, 2023.
- 2) "Overview of MaaS systems planning methodological research", **TU Dresden**, Mar 29, 2023.
- 3) "Overview of MaaS systems planning methodological research", **TU Munich**, Mar 27, 2023.
- 4) "Mobility-on-Demand Technology Deployment under Two Data-Availability Extremes", **TU Delft SPTL & SUM Labs**, Mar 24, 2023.
- 5) "Advances in Static and Dynamic Pickup and Delivery Problems", **TU Delft M3E**, Mar 23, 2023.
- 6) "BUILT Lab Research Overview", **U. Luxembourg**, Mar 3, 2023.
- 7) "A stable matching analysis framework for Mobility-as-a-Service platforms as two-sided markets", **U. Buffalo**, Oct 21, 2022.
- 8) "A stable matching analysis framework for Mobility-as-a-Service platforms as two-sided markets", **U. Connecticut**, Oct 14, 2022.
- 9) "Behavioral Modeling Advances in MaaS Systems", **University of Tokyo**, June 1, 2022.
- 10) "Towards day-to-day assignment games for mobility ecosystems", **Dagstuhl Seminar: Dynamic Traffic Models in Transportation Science**, May 9, 2022.
- 11) "Shared, electric, modular automated mobility in smart cities", **Chulalongkorn University**, Apr 28, 2022.
- 12) "Tackling operational inefficiencies toward sustainable Mobility-as-a-Service", **Texas A&M**, Mar 3, 2022.
- 13) "Modeling capacity effects for route choice in multimodal mobility ecosystems", **Google Workshop on Urban Mobility Simulation and Optimization**, Nov. 17, 2021.
- 14) "[Microtransit deployment portfolio management using simulation-based data upscaling](#)", **University of Toronto**, Nov. 12, 2021.
- 15) "Microtransit deployment portfolio management using simulation-based data upscaling", **Ford Mobility**, Oct. 28, 2021.
- 16) "Microtransit deployment portfolio management using simulation-based data upscaling", **Via Transportation**, Oct. 21, 2021.
- 17) "Overview of MATSim-NYC and Application to COVID", **Lawrence Berkeley National Lab**, May 5, 2021.
- 18) "Planning towards shared, electric, modular automated mobility", **University of South Florida**, April 2, 2021.
- 19) Workshop presenter, "COVID modeling lessons learned from NYC: from mode choice behavior to transit contact networks", **TRB Workshop: Future of Travel in a Post-COVID-19 Pandemic World**, Washington DC, Jan. 21, 2021.
- 20) "[Design of cyberphysical autonomous mobility platforms](#)", **IPAM AVWS3 Large Scale Autonomy: Connectivity and Mobility Networks**, UCLA, Nov. 16, 2020.
- 21) "[Advances toward Mobility-as-a-Service: from traveler to operator and platform perspectives](#)", **UC Irvine**, Oct 23, 2020.
- 22) "Impact of COVID-19 behavioral inertia on reopening strategies for New York City Transit", **Bridging Transport Conference**, Aug 11, 2020.
- 23) Tech Pitch Evaluator, **Subway Signaling Innovation Summit**, New York, Dec 10, 2019.
- 24) "Advances in data privacy control for interoperable urban mobility systems", **The Networking and Information Technology Research and Development (NITRD) Program**, Sept 6, 2019.

- 25) Panelist at 2019 NEEP Summit: Electrification Northeast Symposium, “Electric Mobility in the New Smart City”, Brooklyn, NY: <https://neep.org/events/2019-need-summit-electrification-northeast-symposium>
- 26) “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.
- 27) Moderator for panel hosted by Tandon-VectoIQ Tech Talks at the **New York International Auto Show**, Jacob Javits Convention Center, April 19, 2019.
- 28) “Overcoming obstacles to an electric mobility future”, BEST Workshop, **Industry-University Cooperative Research Centers Program**, NSF, New York City, April 5, 2019.
- 29) “Evaluating emerging transportation technologies and policies with a ‘Network of Living Labs’”, **National Socio-Environmental Synthesis Center Workshop**, Annapolis, MD, Feb 22, 2019.
- 30) “Evaluation of Mobility-as-a-Service Alternatives”, **The Hong Kong Polytechnic University**, Nov 23, 2018.
- 31) “Research Outcomes and Initiatives at BUILT@NYU”, **Federal Transit Administration**, Washington DC, July 22, 2018.
- 32) “The Future of Cities: Mobility in Smart and Connected Cities”, **Smart Cities NYC**, June 26, 2018.
- 33) “Overcoming obstacles toward a Mobility-as-a-Service future”, **ITS-NY Annual Conference**, Saratoga Springs, NY, Jun 15, 2018.
- 34) “City-scalable destination recommender system for on-demand senior mobility”, **NSF Research Coordination Network: Smart & Connected Communities and Aging Population**, Apr 20, 2018.
- 35) “Privacy control strategies to support Mobility-as-a-Service”, **Erasmus University Rotterdam**, Apr 9, 2018.
- 36) “Urban Freight Systems Analysis”, **Chung-Ang University**, Seoul, South Korea, Oct 14, 2017.
- 37) “Models to operate and evaluate mobility-as-a-service”, **University of Minnesota**, Sept 6, 2017.
- 38) “Evaluating and Optimizing Smart Transit Operational Strategies”, **Ford**, Dearborn, MI, Jan 19, 2017.
- 39) “Automated decision-making in last mile transit”, **5th Automated & Connected Vehicles Symposium**, NYU, Nov 8, 2016.
- 40) “City monitoring with travel demand “momentum” vector fields: theoretical and empirical findings”, **Transportation for Smart Cities Symposium at NYU Abu Dhabi**, March 25, 2016.
- 41) “Adaptive network design: introduction and application to charging infrastructure”, **KAIST**, Daejeon, South Korea, Nov 23, 2015.
- 42) “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.
- 43) “Advances in ICT-enabled transit fare management strategies”, Bruce Podwal Seminar Series, **City College of New York**, New York, NY, USA, Oct 6, 2015.
- 44) “Challenges and advances in evaluating multimodal system designs”, Luxembourg Institute of Socio-Economic Research (**LISER**), July 10, 2015.
- 45) “Reducing the cost of evaluating cyber-physical transportation systems”, Western Canada Connected Vehicle Workshop, **University of Alberta**, Apr 14, 2015.
- 46) “Inverse transportation problems and application to multimodal route choices”, PUTRUM Conference, **University of Calgary**, Feb 25, 2015.
- 47) “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.
- 48) “Welfare effects of multimodal and flexible transport services”, **University of Southern California**, Los Angeles, CA, USA, Dec 2, 2014.
- 49) “Inverse transportation problems in an urban Big Data world”, **New York University**, Aug 21, 2014.
- 50) “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.
- 51) “Autonomous Vehicles for Transit Fleets”, Autonomous Road Vehicles Forum, **Metrolinx**, Toronto, ON, Aug 28, 2013.
- 52) “Transportation Infrastructure Planning for Alternative Fuel Technologies”, **8th International Hydrail Conference**, Toronto, ON, June 11-12, 2013.

- 53) “An Activity Routing and Scheduling Assignment Model for Travel Forecasting and Network Design”, **University of Toronto**, Feb 1, 2013.
- 54) “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.
- 55) “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.
- 56) “Activity Routing and Scheduling: Calibration and Scenario Analysis for Activity-based Travel Forecast Models”, **University of California, Irvine**, May 24, 2012.
- 57) “A Framework for Designing Activity-based, Adaptive Cyber-Physical City Logistics Systems”, **Ryerson University**, Nov 8, 2011.
- 58) “Inverse Problems for Travel Behavior, Logistics, and Freight Forecasting”, **University of Auckland**, July 18, 2011.
- 59) “Novel Network Models for Transportation Supply and Demand Analysis”, **University of Texas, Austin**, Mar 22, 2011.
- 60) “Flexible Management of Transportation Networks under Uncertainty”, **City College of New York**, Mar 19, 2010.
- 61) “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

- 62) “The dial-a-ride problem with modular platooning”, CASPT, Nov 8, 2022.
- 63) “Optimal zone sizing for equitable data sharing of mobility providers”, INFORMS, Oct 17, 2022.
- 64) “Stable mobility-as-a-service market design with fixed-route transit and mobility-on-demand services”, INFORMS, Oct 18, 2022.
- 65) “Microtransit deployment portfolio management using simulation-based data upscaling”, TRANSED 2022, Sept 13, 2022.
- 66) “Sequential transit route design by link expansion using knowledge gradient with correlated beliefs”, TRISTAN XI, Mauritius, June 19-25, 2022.
- 67) “A subsidy-stabilized assignment game for Mobility-as-a-Service markets with both fixed route and on-demand operators”, TRISTAN XI, Mauritius, June 19-25, 2022.
- 68) “A random-utility-consistent machine learning method to estimate agents’ joint activity scheduling choice from a ubiquitous data set”, TRISTAN XI, Mauritius, June 19-25, 2022.
- 69) “Microtransit deployment portfolio management using simulation-based data upscaling”, INFORMS Annual Meeting, Oct. 24, 2021.
- 70) “An electric vehicle charging station access equilibrium model with M/D/c queueing”, INFORMS Annual Meeting, Oct. 24, 2021.
- 71) “Mobility operator fleet-sharing contract design to risk-pool against network disruptions”, INSTR, June 16, 2021.
- 72) “Reinforcement learning-based transit operation design: from line planning to operation policy”, INFORMS Annual Meeting, Virtual, 2020.
- 73) “Forecasting e-scooter competition with direct and access trips by mode and distance in New York City”, *UTRC-NYIT Transportation Technology Summit*, New York, Nov 1, 2019.
- 74) “Air Taxi Skyport Location Problem for Airport Access”, *UTRC-NYIT Transportation Technology Summit*, New York, Nov 1, 2019.
- 75) “Dynamic on Demand Ride-sharing Trip-vehicle Matching with Pricing”, INFORMS Annual Meeting, Seattle, WA, Oct 20-23, 2019.
- 76) “Sequential Line Planning Problem With Integrated Learning For Emerging Mobility Routes”, INFORMS Annual Meeting, Seattle, WA, Oct 20-23, 2019.
- 77) “Online Rebalancing Algorithms For Electric Car-sharing Systems”, INFORMS Annual Meeting, Seattle, WA, Oct 20-23, 2019.

- 78) “Doubly-constrained rebalancing for one-way electric carsharing systems with capacitated charging stations”, 7th TSL Workshop, Vienna, Austria, July 15-18, 2019.
- 79) “A many-to-many stable matching cost allocation model for multimodal Mobility-as-a-Service”, TRISTAN X, Hamilton Island, Australia, June 17-21, 2019.
- 80) “Integration of recommender system in mobility services to improve seniors’ accessibility”, 6th Annual Summer Conference on Livable Communities in Western Michigan University, June 7, 2019.
- 81) “A many-to-many stable matching cost allocation model for multimodal Mobility-as-a-Service”, INFORMS, Phoenix, AZ, Nov 4-7, 2018.
- 82) “Dynamically stable route deviation and user-operator cost allocation for a flexible transit service”, INFORMS, Phoenix, AZ, Nov 4-7, 2018.
- 83) “An integrated dynamic ridesharing dispatch and idle vehicle repositioning strategy on a bimodal transport network”, INFORMS, Phoenix, AZ, Nov 4-7, 2018.
- 84) “Evaluation of last-mile transit operations with en-route transfers”, hEART Conference, Athens, Greece, Sept 5-7, 2018.
- 85) “Effect of routing constraints on learning in contextual bandit mobility-on-demand destination recommendation systems”, IATBR, Santa Barbara, CA, July 15-20, 2018.
- 86) “Modeling non-separable, social-influenced multimodal route choice with congestible link capacities”, IATBR, Santa Barbara, CA, July 15-20, 2018.
- 87) “Real Options Switching Strategies in Dynamic Transport Service Operations”, INFORMS, Houston, TX, Oct 23, 2017.
- 88) “Route-cost-assignment with joint user and operator behavior as a many-to-one stable matching assignment game”, INFORMS, Houston, TX, Oct 23, 2017.
- 89) “An algorithm for preserving the privacy of sharing transport service route data”, INFORMS, Houston, TX, Oct 23, 2017.
- 90) “Pass programs and loyalty programs for transit agencies”, INFORMS, Houston, TX, Oct 23, 2017.
- 91) “Pass programs and loyalty programs for transit agencies”, TSL Conference, Chicago, IL, Jul 27, 2017.
- 92) “Inverse transportation problems to infer agent interactions in network-driven machine learning”, TRISTAN IX, Oranjestad, Aruba, June 12-17, 2016.
- 93) “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.
- 94) “The non-myopic dynamic dial-a-ride and pricing problem”, INFORMS Annual Meeting, San Francisco, CA, USA, Nov 8 – 11, 2014.
- 95) “Dynamic vehicle routing and pricing with look ahead for flexible transit”, IFORS 2014, Barcelona, Spain, July 13-18.
- 96) “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.
- 97) “Symbiotic network design strategies in the presence of coexisting transportation networks”, INFORMS Annual Meeting, Minneapolis, MN, Oct 6-9, 2013.
- 98) “Stochastic dynamic itinerary interception refueling location problem with queue delay for electric taxi charging stations”, INFORMS Annual Meeting, Minneapolis, MN, Oct 6-9, 2013.
- 99) “Application of adaptive network design to transit fare revenue management”, INFORMS Annual Meeting, Minneapolis, MN, Oct 6-9, 2013.
- 100) “On observable chaotic maps for queueing analysis”, INFORMS Annual Meeting, Phoenix, AZ, Oct 14-17, 2012.
- 101) “Activity-based travel scenario analysis with routing problem reoptimization”, INFORMS Annual Meeting, Phoenix, AZ, Oct 14-17, 2012.
- 102) “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.

- 103) “A Conceptual Statewide Freight Forecasting Framework for California”, 4th METRANS National Urban Freight Conference, Long Beach, CA, October 12-14, 2011.
- 104) “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.
- 105) “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.
- 106) “Sustainable Transportation Planning: An Outdoor Recreational Travel Case Study”, poster presentation, UCTC Student Conference, UC Berkeley, Feb 24-25, 2011.
- 107) “Network-based Real Option Models and Their Applications to Adaptive Transportation Planning”, 2011 Transportation Research Board 90th Annual Meeting, Washington DC, January 27, 2011.
- 108) “Network-based Real Option Models”, 7th Triennial Symposium on Transportation Analysis, Tromsø, Norway, June 25, 2010.
- 109) “Multi-objective method for flexible robust network toll pricing with multi-regime network degradation”, UCTC Student Conference, UC Irvine, Apr 1 – 2, 2010.
- 110) “Fast Converging Global Heuristic for Continuous Network Design Problem Using Radial Basis Functions”, CORS/INFORMS International Meeting, Toronto, CA, June 14-17, 2009.
- 111) “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.
- 112) “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.
- 113) “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.
- 114) “Real options in network investment and operational risk hedging”, poster presentation, UCTC Student Conference, UC Santa Barbara, Jan 31 – Feb 2, 2008.

MEDIA COVERAGE

- Hiller, Jennifer, 2023. New York City Wants More EVs but Need to Find Space for Chargers. *Wall Street Journal*, <https://www.wsj.com/articles/new-york-city-wants-more-evs-but-needs-to-find-space-for-chargers-11673219507>, Jan. 9.
- IEEE Spectrum, 2021. NYU Researchers Pave the Way for Future Shared Mobility. <https://spectrum.ieee.org/future-shared-mobility>, Sept. 23.
- Lovett, I., 2021. New York City Installs First Curbside Electric-Vehicle Charging Station. *Wall Street Journal*, June 24, <https://www.wsj.com/articles/new-york-city-to-install-first-curbside-electric-vehicle-charging-station-11624525200>.
- Berger, P., 2021. Electric-vehicle charging hub to park itself in New York City. *Wall Street Journal*, Feb. 3, <https://www.wsj.com/articles/electric-vehicle-charging-hub-to-park-itself-in-new-york-city-11612357206>.
- 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 Chair, 2019-2020
 - Vice Chair, Urban Transportation SIG, 2015 – 2017
 - Chair, Urban Transportation SIG, 2017 - 2019
- 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
 - Editorial Board Editor, *Transportation Research Part B*, 2021 – Present
 - Editorial Advisory Board Member, *Transportation Research Part C*, 2021 – Present

- Associate Editor, *Transportation Research Record Editorial Board*, 2019 – Present
- 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
 - IEEE ITSS Technical Committee, Network Operations
 - Expert Advisory Council (EAC), New York State Clean Transportation Roadmap (NYSERDA)
 - 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 (084506)
- Fluent in Cantonese, Proficient in Mandarin
- U.S. Citizen