

Weiwei Chen

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EDUCATION

Ph.D., Industrial Engineering, University of Wisconsin–Madison, July 2010
M.S., Industrial Engineering, University of Wisconsin–Madison, December 2007
M.S., Control Science and Engineering, Tsinghua University, July 2006
B.S., Automation, Tsinghua University, July 2003

PROFESSIONAL EXPERIENCE

Rutgers University, Rutgers Business School – Newark and New Brunswick

Academic Appointments

Professor of Supply Chain Management, July 2024 – Present
Associate Professor of Supply Chain Management, July 2018 – June 2024
Assistant Professor of Supply Chain Management, January 2014 – June 2018

Administrative Appointments

Associate Dean for MBA Programs, July 2026 – Present
Senior Director of MBA Programs, July 2023 – June 2026
Director of Master of Supply Chain Analytics, July 2017 – June 2023

General Electric Global Research, Management Sciences Lab

Lead Scientist, July 2010 – December 2013

- In energy and smart grid areas (serving GE Energy and external electric utility companies): advanced the technology of demand-side management; contributed to the successful development and deployment of GE's Demand Response Management System.
- In air traffic management area (serving GE Aviation and Lockheed Martin): contributed to the technology advancements of conflict-free trajectory negotiation between aircrafts and ground controllers.
- In airline scheduling area (serving GE Aviation): developed airline flight and passenger disruption recovery optimization algorithms considering aircraft preventive maintenance.

RESEARCH INTERESTS

Data-Driven Optimization

Stochastic Modeling

Service Operations

Simulation Optimization

TEACHING EXPERIENCE

Rutgers University

MBA/MS core course: 22:799:580/586, Operations Analysis (average instructor effectiveness 4.62/5; average course quality 4.56/5)

Ph.D. course: 26:799:685, Fundamentals of Optimization for Supply Chain Management (average instructor effectiveness 4.86/5; average course quality 4.87/5)

Undergraduate course: 29/33:799:460, Introduction to Six Sigma and Lean Manufacturing (average instructor effectiveness 4.42/5; average course quality 4.38/5)

Undergraduate course: 29/33:799:320, Fundamentals of Supply Chain Solutions with SAP (average instructor effectiveness 4.34/5; average course quality 4.24/5)

University of Wisconsin-Madison

Instructor (Spring 2009): ISyE 620, Simulation Modeling and Analysis (nominated for teaching award)

PUBLICATIONS

(★: corresponding author)

Refereed Journals

1. D. Wang, W. Chen, C. Hua, W. Zhou, X. Lin (2026) Fast Filter Pruning Method for Neural Network Compression. *INFORMS Journal on Computing*, forthcoming.
2. A. Rana, R. Patel, A. Goswami, S. Luke, A. Baveja, C. Domeniconi, B. Melamed, F. Roberts, W. Chen, A. Crook, V. Menkov, V. Narayan, J. Jones, H. Kavak (2026) A Hybrid Simulation Methodology for Identifying and Mitigating Supply Chain Disruptions. *Journal of Simulation*, forthcoming.
3. C. Zhou, X. Ding, W. Chen, L. Lei, J. Norrell, A. Tray, A. Evens (2026) Enhancing Efficiency and Workflow in Oncology Outpatient Services Through Simulation-Based Optimization. *Annals of Operations Research*, 362: 457–482.
4. T. Wu, C. Zhang, W. Chen, X. Zhang (2026) Integrated Planning of Supply and Inventory Under Seasonal Demand Uncertainty. *Transportation Science*, 60(4): 608–634.
5. T. Wu, W. Chen, J.-F. Cordeau, R. Jans (2026) Machine Learning-Empowered Bender Decomposition for Flow Hub Location in E-Commerce. *INFORMS Journal on Computing*, 38(2): 463–489.
6. S. Jin, Y. He, D. Ivanov, W. Chen★ (2026) To Act or Wait? The Impact of Disruption Duration Estimates on Manufacturer's Response Strategies. *IIE Transactions*, 58(1): 16–32.

7. J. Liu, W. Chen, L. Sun (2025) A Data-Driven Optimization Framework for Static Rebalancing Operations in Bike Sharing Systems. *INFORMS Journal on Computing*, 37(5): 1369–1390.
8. J. Liu, M. Teng, W. Chen, H. Xiong (2023) A Cost-Effective Sequential Route Recommender System for Taxi Drivers. *INFORMS Journal on Computing*, 35(5): 1098–1119.
9. Y. Shi, J. Wang, C. Zhao, V. Venkatesh, W. Chen (2023) Impact of Pricing Leadership on Blockchain Data Acquisition Efforts in a Circular Supply Chain. *International Journal of Production Research*, 61(21): 7248–7262.
10. W. Chen*, G. Kumcu, B. Melamed, A. Baveja (2023) Managing Resource Allocation for the Recruitment Stocking Problem. *Omega*, 120: 102912.
11. W. Chen*, S. Gao, W. Chen, J. Du (2023) Optimizing Resource Allocation in Service Systems via Simulation: A Bayesian Formulation. *Production and Operations Management*, 32(1): 65–81.
12. J. Tao, H. Dai, W. Chen, H. Jiang (2023) The Value of Personalized Dispatch in O2O On-Demand Delivery Services. *European Journal of Operational Research*, 304(3): 1022–1035.
– Received the first prize paper award at the 22nd Annual Meeting of the China Society of Logistics
13. T. Wu, C. Zhang, W. Chen, Z. Liang, X. Zhang (2022) Unsupervised Learning-Driven Matheuristic for Production-Distribution Problems. *Transportation Science*, 56(6): 1677–1702.
14. B. Melamed, R. Leuschner, W. Chen, D. Rogers, M. Cao (2022) Inventory Turns and Finite-Horizon Little’s Law. *Annals of Operations Research*, 317: 129–146.
15. J. Liu, W. Chen, J. Yang, H. Xiong, C. Chen (2022) Iterative Prediction-and-Optimization for E-logistics Distribution Network Design. *INFORMS Journal on Computing*, 34(2): 769–789.
16. M. Qin, Z. Shi, W. Chen, S. Gao, L. Shi (2021) Wafer Defect Inspection Optimization with Partial Coverage—A Numerical Approach. *IEEE Transactions on Automation Science and Engineering*, 18(4): 1916–1927.
17. J. Tao, H. Dai, H. Jiang, W. Chen (2021) Dispatch Optimization in O2O On-Demand Service with Crowdsourced and In-House Drivers. *International Journal of Production Research*, 59(20): 6054–6068.
– Received the third prize paper award at the 19th Annual Meeting of the China Society of Logistics
18. D. Ivanov, B. Sokolov, W. Chen*, A. Dolgui, F. Werner, S. Potrysaev (2021) A Control Approach to Scheduling Flexibly Configurable Jobs with Dynamic Structural-Logical Constraints. *IIE Transactions*, 53(1): 21–38.
– Received the *IIE Transactions* 2022 Design & Manufacturing Best Paper Award
19. C. Zhang, H. Guan, Y. Yuan, W. Chen, T. Wu (2020) Machine Learning-Driven Algorithms for the Container Relocation Problem. *Transportation Research Part B: Methodological*, 139: 102–131.
20. Y. Zhang, X. Yang, W. Zhang, W. Chen (2020) Online Ordering Rules for the Multi-Period Newsvendor Problem with Quantity Discounts. *Annals of Operations Research*, 288(1): 495–524.
21. Z. Shi, S. Gao, H. Xiao, W. Chen (2019) A Worst-Case Formulation for Constrained Ranking and Selection with Input Uncertainty. *Naval Research Logistics*, 66(8): 648–662.
22. W. Chen*, L. Lei, Z. Wang, M. Teng, J. Liu (2018) Coordinating Supplier Selection and Project Scheduling in Resource-Constrained Construction Supply Chains. *International Journal of Production Research*, 56(19): 6512–6526.
23. R. Ke, D. Patton, W. Chen (2018) Business Models Dynamics and Business Ecosystems in the Emerging 3D Printing Industry. *Technological Forecasting and Social Change*, 134: 234–245.

24. J. M. Song, W. Chen*, L. Lei (2018) Supply Chain Flexibility and Operations Optimisation Under Demand Uncertainty: A Case in Disaster Relief. *International Journal of Production Research*, 56(10): 3699–3713.
25. W. Chen*, A. Baveja, B. Melamed (2018) Temporal Shaping of Simulated Time Series with Cyclical Sample Paths. *Probability in the Engineering and Informational Sciences*, 32(1): 126–143.
26. W. Chen*, B. Melamed, O. Sokolinskiy, B. Sopranzetti (2017) Cash Conversion Systems in Corporate Subsidiaries. *Manufacturing & Service Operations Management*, 19(4): 604–619.
27. S. Gao, W. Chen, L. Shi (2017) A New Budget Allocation Framework for the Expected Opportunity Cost. *Operations Research*, 65(3): 787–803.
28. R. Tyagi, W. Chen*, J. Black, P. Tiwari, B. Lecours, J. Shaver (2017) Transforming Electrical Load from an Operational Constraint to a Controllable Resource. *Interfaces*, 47(4): 292–304.
29. S. Gao, H. Xiao, E. Zhou, W. Chen (2017) Robust Ranking and Selection with Optimal Computing Budget Allocation. *Automatica*, 81: 30–36.
30. W. Chen* (2017) Sensitivity-based Nested Partitions for Solving Markov Decision Processes. *Operations Research Letters*, 45(5): 481–487.
31. S. Gao, W. Chen (2017) A Partition-based Random Search for Stochastic Constrained Optimization via Simulation. *IEEE Transactions on Automatic Control*, 62(2): 740–752.
32. S. Gao, W. Chen (2017) Efficient Feasibility Determination with Multiple Performance Measure Constraints. *IEEE Transactions on Automatic Control*, 62(1): 113–122.
33. Y. Zhang, W. Chen*, R. Xu, J. Black (2016) A Cluster-based Method for Calculating Baselines for Residential Loads. *IEEE Transactions on Smart Grid*, 7(5): 2368–2377.
34. S. Gao, W. Chen (2016) A New Budget Allocation Framework for Selecting Top Simulated Designs. *IIE Transactions*, 48(9): 855–863.
35. S. Gao, W. Chen (2015) Efficient Subset Selection for the Expected Opportunity Cost. *Automatica*, 59: 19–26.
36. W. Chen*, S. Gao, C.-H. Chen, L. Shi (2014) An Optimal Sample Allocation Strategy for Partition-based Random Search. *IEEE Transactions on Automation Science and Engineering*, 11(1): 177–186.
37. W. Chen*, X. Wang, J. Petersen, R. Tyagi, J. Black (2013) Optimal Scheduling of Demand Response Events for Electric Utilities. *IEEE Transactions on Smart Grid*, 4(4): 2309–2319.
38. W. Chen*, J. Song, L. Shi, L. Pi, P. Sun (2013) Data Mining-based Dispatching System for Solving the Local Pickup and Delivery Problem. *Annals of Operations Research*, 203(1): 351–370.
39. H. Zhang, S. Gao, W. Chen, L. Shi, W. D’Souza, R. Meyer (2013) A Surrogate-based Metaheuristic Global Search Method for Beam Angle Selection in Radiation Treatment Planning. *Physics in Medicine and Biology*, 58(6): 1933–1946.
40. J. Song, W. Chen, L. Wang (2012) A Block Queueing Network Model for Control Patients Flow Congestion in Urban Healthcare System. *International Journal of Services Operations and Informatics*, 7(2–3): 82–95.
41. C. Zhang, W. Chen (2012) A Note on ‘A New Dynamic Programming Formulation of $(n \times m)$ Flowshop Sequencing Problems with Due Dates’. *International Journal of Production Research*, 50(16): 4631–4634.
42. W. Chen*, L. Pi, L. Shi (2011) An Enhanced Nested Partitions Algorithm Using Solution Value Prediction. *IEEE Transactions on Automation Science and Engineering*, 8(2): 412–419.

43. C. Zhang, W. Chen, L. Shi, L. Zheng (2010) A Note on Deriving Decision Rules to Locate Export Containers in Container Yards. *European Journal of Operational Research*, 205(2): 483–485.
44. W. Chen*, R. Geng, D. Cui (2006) Optimization of Sequencing and Scheduling for Arrival Aircrafts in Approach Area. *Journal of Tsinghua University (Science & Technology)*, 46(1): 157–160 (in Chinese).

Book Chapters

1. W. Chen*, S. Gao, C.-H. Chen (2024) A Bayesian Formulation for Optimizing Resource Allocation via Simulation. A chapter in *Encyclopedia in Operations Management*, T.-M. Choi, S. Rajendran (eds.), Elsevier, forthcoming.
2. W. Chen*, B. Melamed, O. Sokolinskiy, B. Sopranzetti (2020) Equilibrium Rate Analysis of Cash Conversion Systems: The Case of Corporate Subsidiaries. A chapter in *Handbook of Financial Econometrics, Mathematics, Statistics, and Machine Learning*, C.F. Lee, J. C. Lee (eds.), World Scientific, 1725–1762.
3. W. Chen*, L. Shi (2015) Nested Partitions for Large-Scale Optimization in Supply Chain Management. A chapter in *Supply Chain Management and Logistics: Innovative Strategies and Practical Solutions*, Z. Liang, W. Chaovalitwongse, L. Shi (eds.), CRC Press, 123–150.
4. W. Chen*, L. Shi (2013) Nested Partitions. A chapter in *Stochastic Simulation Optimization for Discrete Event Systems - Perturbation Analysis, Ordinal Optimization, and Beyond*, C.-H. Chen, Q.-S. Jia, L. H. Lee (eds.), World Scientific Publishing Co., 203–226.
5. W. Chen*, L. Pi, L. Shi (2009) Nested Partitions and Its Applications to the Intermodal Hub Location Problem. A chapter in *Optimization and Logistics Challenges in the Enterprise*, W. Chaovalitwongse, K. Furman, P. Pardalos (eds.), Springer, 229–251.

Conference Proceedings

1. A. Baveja, W. Chen, D. Egan, A. Goswami, P. March, B. Melamed, C. Nelson, F. Roberts (2024) Detecting Criminal Disruptions of Supply Chains. In *Proceedings of the 52nd Annual Meeting of Western Decision Sciences Institute (WDSI 2024)*, pp. 1–13.
2. H. Dai, J. Tao, H. Jiang, W. Chen (2019) O2O On-Demand Delivery Optimization with Mixed Driver Forces. In *Proceedings of the 9th IFAC Conference on Manufacturing Modelling, Management and Control (MIM 2019)*, pp. 391–396.
– Received the Best Paper Award at the conference (out of 774 submitted full papers)
3. W. Chen*, B. Melamed, M. Teng, C. Canaday (2017) Modeling and Simulation of Port-of-Entry Systems. In *Proceedings of the 2017 Winter Simulation Conference*, pp. 4470–4472 (extended abstract).
4. S. Gao, H. Xiao, E. Zhou, W. Chen (2016) Optimal Computing Budget Allocation with Input Uncertainty. In *Proceedings of the 2016 Winter Simulation Conference*, pp. 839–846.
5. J. Liu, L. Sun, W. Chen, H. Xiong (2016) Rebalancing Bike Sharing Systems: A Multi-Source Data Smart Optimization. In *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, pp. 1005–1014.
6. S. Gao, W. Chen (2016) Feasibility Determination in Presence of Multiple Performance Measure Constraints. In *Proceedings of the 2016 IEEE International Conference on Industrial Technology*, pp. 988–992.
7. S. Gao, W. Chen (2015) A Note on the Subset Selection for Simulation Optimization. In *Proceedings of the 2015 Winter Simulation Conference*, pp. 3768–3776.
8. J. Liu, Q. Li, M. Qu, W. Chen, J. Yang, H. Zhong, X. Hui, Y. Fu (2015) Station Site Optimization in Bike Sharing Systems. In *Proceedings of the 2015 IEEE International Conference on Data Mining*, pp. 883–888.

9. W. Chen*, D. Dobrzykowski, L. Lei, Z. Jian, H. Dong, M. Cohen (2014) Neonatal ICU Operational Analysis via Simulation. In *Proceedings of the 2014 Winter Simulation Conference*, pp. 4164–4165 (extended abstract).
10. W. Chen*, J. Song, L. Shi (2011) Optimizing Local Pickup and Delivery with Uncertain Loads. In *Proceedings of the 2011 Winter Simulation Conference*, pp. 4251–4261.
11. Y. Zhang, W. Chen, J. Black (2011) Anomaly Detection in Premise Energy Consumption Data. In *Proceedings of the 2011 IEEE Power and Energy Society General Meeting*, pp. 1–8.
12. W. Chen, H. Zhang, R. Meyer, L. Shi, W. D’Souza (2010) Beam Angle Selection (BAS) via Nested Partitions-based Global Search Using a Fast Beam Set Scoring Process. In *Proceedings of the American Society for Radiation Oncology 52nd Annual Meeting, International Journal of Radiation Oncology • Biology • Physics*, 78 (3): S811–S812 (extended abstract).
13. W. Chen*, L. Shi (2008) A Variant of Examination Timetabling Problem. In *Proceedings of the 2008 IEEE Conference on Automation Science and Engineering*, pp. 353–358.
14. W. Chen*, D. Cui (2005) Optimization Model and Genetic Algorithm for Aircraft Scheduling Problem. In *Proceedings of the 2005 International Conference on Intelligent Systems*, pp. 1–5.

PATENTS

1. System and Method for Managing Aircraft Ground Operations, issued in 2015. U.S. Patent No. 9,218,744 (with J. Petersen and S. Bollapragada).
2. System and Method for Determining Aircraft Payloads to Enhance Profitability, issued in 2015. U.S. Patent No. 9,165,471 (with S. Bollapragada and J. Petersen).
3. System, Method, and Apparatus for Scheduling Aircraft Maintenance Events, issued in 2015. U.S. Patent No. 9,008,892 (with S. Bollapragada, J. Petersen and M. Harrington).
4. Methods and Systems for Managing Air Traffic, issued in 2015. U.S. Patent No. 8,942,914 (with R. Subbu et al.).
5. Systems and Methods for Data Anomaly Detection, issued in 2014. U.S. Patent No. 8,781,767 (with J. Black, B. Hoogs, M. Li and Y. Zhang).
6. Methods and Systems for Managing Air Traffic, issued in 2013. U.S. Patent No. 8,606,491 (with R. Subbu et al.).

EDITED PROCEEDINGS AND JOURNAL EDITORIALS

1. *AI, Society and Digital Transformation: Proceedings of 2025 INFORMS Conference on Service Science*, X. Xie, K. Hu, G. Hu, W. Chen, R. Qiu (eds.), Springer, 2025.
2. W. Chen (2025) Rethinking Efficiency and Resilience: The Role of AI and Analytics in the Future of Supply Chain Management. *Digital Transformation and Society*, 4(3): 233–234.
3. W. Chen, T.-M. Choi, A. Dolgui, D. Ivanov, E. Pesch (2025) Digital Manufacturing and Supply Chain: Creating Benefits Through Operations Research and Artificial Intelligence. *Annals of Operations Research*, 344: 569–574.
4. A. Dolgui, D. Ivanov, A. Brintrup, W. Chen, B. Shen, S. Paul (2024) Design and Management of Energy-Efficient and Energy-Resilient Supply Chains. *International Journal of Production Research*, 62(24): 8921–8923.

5. D. Ivanov, W. Chen, D. Coit, N. Altay (2024) Modeling and Optimization of Supply Chain Resilience to Pandemics and Long-Term Crises. *IIE Transactions*, 56(7): 683–684.
6. *City, Society, and Digital Transformation: Proceedings of the 2022 INFORMS International Conference on Service Science*, R. Qiu, W.K.V. Chan, W. Chen, Y. Badr, C. Zhang (eds.), Springer, 2022.
7. W. Chen, S. Gao, M. Pinedo, L. Tang (2022) Modeling and Data Analytics in Manufacturing and Supply Chain Operations. *Flexible Services and Manufacturing Journal*, 34: 235–237.
8. *AI and Analytics for Smart Cities and Service Systems: Proceedings of the 2021 INFORMS International Conference on Service Science*, R. Qiu, K. Lyons, W. Chen (eds.), Springer, 2021.
9. H. Xiao, X. Xiong, W. Chen (2021) Introduction to the Special Issue on Impact of COVID-19 and Cryptocurrencies on the Global Financial Market. *Financial Innovation*, 7(1): 1–2.
10. *AI and Analytics for Public Health: Proceedings of the 2020 INFORMS International Conference on Service Science*, H. Yang, R. Qiu, W. Chen (eds.), Springer, 2020.
11. *Smart Service Systems, Operations Management, and Analytics: Proceedings of the 2019 INFORMS International Conference on Service Science*, H. Yang, R. Qiu, W. Chen (eds.), Springer, 2019.

RESEARCH GRANTS

External Grants

New Jersey Transit, “Rail Network Analysis and Modeling”. Senior personnel (modeling, simulation, and analysis), with X. Liu (PI). \$2M for the period from 4/1/2024 to 12/31/2025.

U.S. Department of Homeland Security, “Detecting Criminal Disruption of Supply Chains Study”. Senior personnel (co-lead of the modeling/simulation project), with F. Roberts (PI), et al. \$1M for the period from 9/20/2021 to 9/19/2023 (\$470,766 for the subcontract to Rutgers).

U.S. Department of Homeland Security, “Modeling Methodology and Simulation of Port-of-Entry Systems”. Co-PI, with B. Melamed (PI). \$684,587 for the period from 1/16/2016 to 6/30/2018.

Internal Grants

Rutgers Cancer Institute of New Jersey, “Workflow Optimization and Structure Benchmark”. Senior personnel (co-lead of the modeling/simulation project), with X. Ding (PI). \$105,767 for the period from 7/1/2022 to 6/30/2023.

Rutgers University, Grant Awards in Big Data Analytics, “Crowd-Centric Security Big Data Analytics and Risk Management: An Interdisciplinary Academic-Industry Consortium”. Co-PI, with X. Liu (PI), M. Kapadia, and B. Piccoli. \$40,000 for the period from 7/2017 to 6/2018.

Rutgers University, Open & Affordable Textbook Grant. \$1,000 for Fall 2017 and Spring 2018 semesters.

Rutgers University–Newark, Chancellor’s Strategic Seed Grant, “Telemedicine Delivery for Underserved Populations in Greater Newark”. Co-PI, with B. Melamed (PI) et al. \$50,000 for the period from 7/2015 to 6/2017.

Rutgers Business School, Dean’s Fund for Summer Ph.D. Research Assistantship, 2015 (J. M. Song), 2016 (H. Zhang), 2020 (G. Kumcu), 2021 (G. Kumcu), 2022 (X. Huang, C. Zhou, and A. Goswami), 2024 (T. Lin, and C. Zhou), 2025 (T. Lin), 2026 (T. Lin).

HONORS AND AWARDS

Outstanding Achievement Award for Service and Research Excellence in the field of Service Science, 2026 International Conference on Service Science, 2026.

Best Reviewer Award, *Omega*, 2023, 2025.

First Prize Paper Award, 22nd Annual Meeting of the China Society of Logistics, 2022.

Dean's Meritorious Research Excellence Award, Rutgers Business School, 2022.

IIE Transactions Design & Manufacturing Best Paper Award, 2022.

Third Prize Paper Award, 19th Annual Meeting of the China Society of Logistics, 2020.

Best Paper Award, 9th IFAC Conference on Manufacturing Modeling, Management, and Control, 2019.

Dean's Meritorious Teaching Excellence Award, Rutgers Business School, 2019.

Junior Faculty Research Excellence Award, Rutgers Business School, 2017.

Outstanding Reviewer Award, *IEEE Transactions on Automatic Control*, 2011, 2013, 2016.

GE Above & Beyond Bronze Award for Expertise, GE Global Research, 2013.

GE Above & Beyond Patent Award, GE Global Research, 2011, 2012, 2013.

GE's Genius of the Day, GE Global Research, 2011.

GE Above & Beyond Silver Award for Expertise, GE Global Research, 2011.

GE Above & Beyond Bronze Award for Inclusiveness, GE Global Research, 2011.

GE Level 3 Award, GE Global Research, 2010.

Richard S. and Harriet K. Fein Scholarship, University of Wisconsin-Madison, 2008.

Industrial Enterprise Scholarship for Outstanding Students, Tsinghua University, 2005.

Undergraduate Scholarship, Tsinghua University, 2001.

Second Prize in Electrical Design Contest, Tsinghua University, 2001.

PRESENTATIONS

Invited University/Industry Talks

1. Making AI More Efficient with OR: Diversity-Preserving Filter Pruning for Neural Network Compression, *Arizona State University, School of Computing and Augmented Intelligence*, Phoenix, AZ, September 2026.
2. Balancing Workforce Fissuring and Service Quality: Evidence from Dialysis Operations, *Zhejiang University, Department of Data Science and Engineering Management*, Hangzhou, China, June 2026.
3. Balancing Workforce Fissuring and Service Quality: Evidence from Dialysis Operations, *Central University of Finance and Economics, Business School*, Beijing, China, June 2026.
4. Data-Driven Optimization for Service Systems with Learned and Endogenous Inputs, *Tsinghua University, Department of Industrial Engineering*, Beijing, China, June 2026.

5. Balancing Workforce Fissuring and Service Quality: Evidence from Dialysis Operations, *University of Washington, Department of Information Systems & Operations Management*, Seattle, WA, April 2026.
6. Diversity-Preserving Filter Pruning: A Fast Optimization Approach for Practical Neural Network Compression, *Rutgers University, The Command, Control and Interoperability Center for Advanced Data Analysis (CCICADA)*, Piscataway, NJ, April 2026 (delivered online).
7. Static Bike Sharing Rebalancing: Why Capturing Demand Substitution Matters? *Cornell University, Operations, Technology & Information Management (OTIM) Symposium*, Ithaca, NY, June 2025.
8. Optimizing Bike Sharing Rebalancing Operations with Demand Substitution, *HEC Montréal, Department of Logistics and Operations Management*, Montréal, Canada, April 2025.
9. Optimizing Resource Allocation in Service Systems via Simulation: A Bayesian Formulation, *Fudan University, Workshop on Innovative Research in Digital and Intelligent Operations*, Shanghai, China, July 2024.
10. A Tutorial on Simulation Analytics: A Supply Chain Perspective, *Johnson & Johnson*, Raritan, NJ, May 2024.
11. Exploring the Power of Machine Learning in Solving Hard Optimization Problems in Supply Chains, *GE Global Research*, Niskayuna, NY, July 2021 (delivered online).
12. Improving Supply Chain Operations and Driving Business Insights Using Analytics, *Symbiosis Institute of Operations Management*, Nashik, India, November 2020 (delivered online).
13. Quantifying Financial Impacts of Blockchain in Corporate Subsidiaries, *Southwestern University of Finance and Economics*, Chengdu, China, July 2019.
14. Tackling Stochastic Constrained Problems via Simulation: Feasibility Determination and Optimization, *Rutgers University, Department of Industrial and Systems Engineering*, Piscataway, NJ, October 2018.
15. Topics in Supply Chain Analytics, *Tsinghua University, Institute of Economics*, Beijing, China, July 2018.
16. Topics in Supply Chain Financial Management, *Northeast Normal University, School of Business*, Changchun, China, July 2018.
17. Optimizing Supply Chain Decisions Using Data Analytics and Simulation, *JD.com*, Beijing, China, June 2018.
18. Cash Conversion Systems in Corporate Subsidiaries, *George Washington University, Department of Decision Sciences*, Washington, D.C., March 2018.
19. Cash Conversion Systems in Corporate Subsidiaries, *University of Wisconsin-Madison, Department of Industrial and Systems Engineering*, Madison, WI, November 2017.
20. Tackling Stochastic Constrained Problems via Simulation: Feasibility Determination and Optimization, *New Jersey Institute of Technology, Laboratory for Discrete Event Systems*, Newark, NJ, September 2017.
21. Rebalancing Bike Sharing Systems, *Xiamen University, School of Information Science and Engineering*, Xiamen, China, August 2017.
22. Equilibrium Rate Analysis of Cash Conversion Systems in Corporate Subsidiaries, *Xiamen University, School of Management*, Xiamen, China, August 2017.
23. Equilibrium Rate Analysis of Cash Conversion Systems in Corporate Subsidiaries, *Tsinghua University, Graduate School at Shenzhen*, Shenzhen, China, July 2017.
24. Data Analytics and Optimization for Smarter Decision Makings in Electrical Grid, *Tsinghua University, Department of Industrial Engineering*, Beijing, China, July 2015.

25. Industrial Internet: Making Better Decisions in Electrical Grid and Beyond, *Peking University, Department of Industrial Engineering and Management*, Beijing, China, June 2014.
26. Smart Grid - Grid IQ™ Demand Optimization Solution, *MIT Engineering Systems Division*, Cambridge, MA, November 2011.
27. Evaluating the Impact of Local Dray Driver Domiciles on Dispatch Performance, *Schneider National*, Green Bay, WI, June 2007.

Conference Keynote/Plenary Talks

1. Shaping Better Service Systems through Data-Driven Optimization, *11th IFAC Conference on Manufacturing Modeling, Management, and Control (MIM 2025)*, Trondheim, Norway, July 2025 (keynote).
2. Educating the Current & Future Supply Chain Leaders, *Digital Supply Chain Summit*, Online, October 2021 (keynote).
3. Improving Service Designs and Operations Using Analytics, *2020 INFORMS Conference on Service Science*, Online, December 2020 (plenary).
4. Addressing the Skills Gap for Digital Supply Chain Transformation: A Vision for Talent Strategy for Digital Age, *Digital Supply Chain Summit*, Princeton, NJ, June 2019 (keynote).

Conference Presentations

1. The Convergence: AI, Business & Education, *Rutgers Business School's 8th Annual Business Community Engagement Symposium*, Newark, NJ, November 2023 (invited panel discussion).
2. Optimizing Resource Allocation in Service Systems via Simulation: A Bayesian Formulation, *INFORMS Annual Meeting*, Phoenix, AZ, October 2023 (invited talk).
3. A Markov Renewal Model and Approximations for Valuating Cash Conversion Systems, *The 29th Annual Pacific Basin Finance, Economics, Accounting and Management (PBFEM) Conference*, Online, September 2021 (invited talk).
4. O2O On-Demand Delivery Optimization with Mixed Driver Forces, *2019 MIM Conference*, Berlin, Germany, August 2019 (invited talk).
5. Supply Chain Analytics Curriculum/Course Design, *POMS Annual Conference*, Washington D.C., May 2019 (invited panel discussion).
6. Quantifying Financial Impacts of Blockchain in Cash Conversion Systems, *POMS Annual Conference*, Washington D.C., May 2019 (invited talk).
7. Rebalancing Bike Sharing Systems: A Data-Driven Approach, *INFORMS Annual Meeting*, Phoenix, AZ, November 2018 (invited talk).
8. Coordinating Supplier Selection and Project Scheduling in Construction Supply Chains, *2018 INFORMS International Conference*, Taipei, Taiwan, June 2018 (invited talk).
9. Modeling and Simulation of Port-of-Entry Systems, *Winter Simulation Conference*, Las Vegas, NV, December 2017 (contributed talk).
10. Cash Conversion Systems in Corporate Subsidiaries, *INFORMS Annual Meeting*, Houston, TX, October 2017 (invited talk).
11. Temporal Shaping of Simulated Time Series with Cyclical Sample Paths, *IEEE International Conference on Automation Science and Engineering, Workshop on Data Analytical Approach for Large-Scale Optimization*, Xi'an, China, August 2017 (invited talk).

12. Inventory Turns and Finite-Horizon Little's Laws, *The 10th International Annual Conference of the Chinese Scholars Association for Management Science and Engineering (CSAMSE)*, Guangzhou, China, July 2017 (invited talk).
13. Inventory Turns and Finite-Horizon Little's Laws, *POMS Annual Conference*, Seattle, WA, May 2017 (invited talk).
14. A Partition-based Random Search for Stochastic Constrained Optimization via Simulation, *INFORMS Annual Meeting*, Nashville, TN, November 2016 (invited talk).
15. Optimizing Hospital Service Levels via Resource Allocation, *INFORMS Annual Meeting*, Nashville, TN, November 2016 (invited talk).
16. Temporal Shaping of Simulated Time Series with Cyclical Sample Paths, *The 8th International Workshop on Applied Probability (IWAP)*, Toronto, Canada, June 2016 (invited talk).
17. A Markovian Model of Cash Conversion Systems in Make-to-Stock Supply Chains, *POMS Annual Conference*, Orlando, FL, May 2016 (invited talk).
18. Data-Oriented Decision Making in Demand Response, *INFORMS Annual Meeting*, Philadelphia, PA, November 2015 (invited talk).
19. Optimizing Emergency Response Operations in Disaster Reliefs, *The 8th International Annual Conference of the Chinese Scholars Association for Management Science and Engineering (CSAMSE)*, Shenyang, China, July 2015 (invited talk).
20. An Adaptive Partitioning Algorithm for Sequential Decision Making in Supply Chain, *INFORMS Annual Meeting*, San Francisco, CA, November 2014 (invited talk).
21. Drayage Operations Optimization for Intermodal Transportation, *INFORMS Annual Meeting*, Minneapolis, MN, October 2013 (invited talk).
22. An Optimal Sample Allocation Strategy for Nested Partitions, *IEEE International Conference on Automation Science and Engineering, Workshop on Stochastic Simulation Optimization for Discrete Event Systems - Perturbation Analysis, Ordinal Optimization, and Beyond*, Madison, WI, August 2013 (invited talk).
23. An Optimal Sample Allocation Strategy for Partition-based Random Search, *INFORMS Annual Meeting*, Phoenix, AZ, October 2012 (contributed talk).
24. Optimizing Local Pickup and Delivery with Uncertain Loads, *Winter Simulation Conference*, Phoenix, AZ, December 2011 (contributed talk).
25. Optimizing the Scheduling of Demand Response Events for Electric Utilities, *INFORMS Annual Meeting*, Charlotte, NC, November 2011 (invited talk).
26. Sensitivity-based Nested Partitions for Solving Markov Decision Processes, *INFORMS Annual Meeting*, Austin, TX, November 2010 (contributed talk).
27. Radiation Treatment Planning: Beam Angle Selection, *INFORMS Annual Meeting*, Austin, TX, November 2010 (contributed talk).
28. Nested Partitions with Statistical Promising Indices, *INFORMS Annual Meeting*, San Diego, CA, October 2009 (invited talk).
29. Local Pickup and Delivery Problem with Stochastic Loads, *INFORMS Annual Meeting*, San Diego, CA, October 2009 (contributed talk).
30. Policy Partitioning Dynamic Programming, *INFORMS Annual Meeting*, Washington DC, October 2008 (contributed talk).
31. Data Mining-based Decision System Framework for Local Pickup and Delivery Problem, *INFORMS Annual Meeting*, Seattle, WA, November 2007 (invited talk).

PROFESSIONAL ACTIVITIES

Editorial Service

Associate Editor, *International Journal of Production Research*, since 2025

Area Editor, *Digital Transformation and Society*, since 2024

Associate Editor, *Service Science*, since 2024

Associate Editor, *IEEE Transactions on Automation Science and Engineering*, 2022–2024

Associate Editor, *Digital Transformation and Society*, 2022–2024

Associate Editor, *INFORMS Journal on Applied Analytics* (formerly *Interfaces*), since 2021

Associate Editor, *Journal of Simulation*, since 2016

Associate Editor, *Rutgers Business Review*, since 2016

Guest Editor, *Annals of Operations Research*, Special Issue on “Viable Supply Chains, Manufacturing and Logistics” (expected to publish in 2027) and Special Issue on “Digital Manufacturing and Supply Chain: Creating Benefits Through Operations Research and Artificial Intelligence” (Volume 344, 2025)

Guest Editor, *IIE Transactions*, Special Issue on “Large-Scale Systemic Shocks in Manufacturing and Supply Chains” (expected to publish in 2027) and Special Issue on “Modeling and Optimization of Supply Chain Resilience to Pandemics and Long-Term Crises” (Volume 56, Issue 7, 2024)

Guest Editor, *International Journal of Production Research*, Special Issue on “Design and Management of Energy-Efficient and Energy-Resilient Supply Chains” (Volume 62, Issue 24, 2024)

Guest Editor, *Flexible Services and Manufacturing Journal*, Special Issue on “Modeling and Data Analytics in Manufacturing and Supply Chain Operations” (Volume 34, Issue 2, 2022)

Guest Editor, *Financial Innovation*, Special Issue on “Impact of COVID-19 and Cryptocurrencies on the Global Financial Market” (Volume 7, 2021)

Editorial Board Member, *Journal of Digital Economy*, 2022–2024

Editorial Board Member, *Methodology and Computing in Applied Probability*, 2019–2021

Editorial Board Member, *Frontiers of Engineering Management*, since 2018

Society Service

Board Member, INFORMS Service Science Section, since 2024

Chair, INFORMS Service Science Section, August 2020 – December 2023

Technical Committee Member of Manufacturing Modeling for Management and Control, International Federation of Automatic Control (IFAC), since 2017

Winter Simulation Conference Ph.D. Colloquium Committee, 2017–2020 (Committee Chair in 2019)

Conference Service

Program Committee Member, 2026 Winter Simulation Conference, Glasgow, Scotland, December 2026

Practice Award Committee Member, The 18th CSAMSE Annual Conference, Shenyang, China, June 2026

Conference Best Paper Awards Committee Co-chair, 2026 INFORMS Conference on Service Science, Hangzhou, China, May 2026

Program Committee Member, 2025 Winter Simulation Conference, Seattle, WA, December 2025

Service Science Best Student Paper Award Committee Co-chair and Session Chair, 2025 INFORMS Annual Meeting, Atlanta, GA, October 2025

Practice Award Committee Member, The 17th CSAMSE Annual Conference, Chendu, China, July 2025

Conference General Co-chair, 2025 INFORMS Conference on Service Science, Oxford, UK, July 2025

Program Committee Member, 11th IFAC Conference on Manufacturing Modeling, Management, and Control (MIM 2025), Trondheim, Norway, June 2025

Program Committee Member, 2024 Winter Simulation Conference, Orlando, FL, December 2024

Service Science Best Student Paper Award Committee Co-chair, 2024 INFORMS Annual Meeting, Seattle, WA, October 2024

Practice Award Committee Member and Session Chair, The 16th CSAMSE Annual Conference, Xiamen, China, July 2024

Conference General Co-chair, 2024 INFORMS Conference on Service Science, Macau, China, June 2024

Track Chair, 2023 Winter Simulation Conference, San Antonio, TX, December 2023

Cluster Chair and Service Science Best Cluster Paper Award Committee Co-chair, 2023 INFORMS Annual Meeting, Phoenix, AZ, October 2023

Practice Award Committee Member, The 15th CSAMSE Annual Conference, Shenzhen, China, July 2023

Conference Committee Member, 2023 Frontiers in Service Conference, Maastricht, Netherlands, June 2023

Track Chair, 2022 Winter Simulation Conference, Singapore, December 2022

Session Chair, The 14th CSAMSE Annual Conference, Online, July 2022

Program Committee Member, 10th IFAC Conference on Manufacturing Modeling, Management, and Control (MIM 2022), Nantes, France, June 2022

Conference General Co-chair, 2022 INFORMS Conference on Service Science, Shenzhen, China, July 2022

Cluster Chair and Service Science Best Cluster Paper Award Committee Chair, 2021 INFORMS Annual Meeting, Anaheim, CA, October 2021

Conference Program Chair, 2021 INFORMS Conference on Service Science, Online, August 2021

Conference Program Chair, 2020 INFORMS Conference on Service Science, Online, December 2020

Cluster Chair, 2020 INFORMS Annual Meeting, Online, November 2020

Ph.D. Colloquium Chair and Session Chair, 2019 Winter Simulation Conference, National Harbor, MD, December 2019

Best Student Paper Award Committee Member and Session Chair, 9th IFAC Conference on Manufacturing Modeling, Management, and Control (MIM 2019), Berlin, Germany, August 2019

Conference Program Chair, 2019 INFORMS Conference on Service Science, Nanjing, China, June 2019

Technical Program Committee Member, 2018 Winter Simulation Conference, Sweden, December 2018

Service Science Best Cluster Paper Award Committee Member and Session Chair, 2018 INFORMS Annual Meeting, Phoenix, AZ, November 2018

Conference Program Chair, 2018 INFORMS Conference on Service Science, Phoenix, AZ, November 2018

Session Chair, 2018 INFORMS International Conference, Taipei, Taiwan, June 2018

Technical Program Committee Member, 2017 Winter Simulation Conference, Las Vegas, NV, December 2017

Co-organizer, Workshop on Data Analytical Approach for Large-Scale Optimization, 2017 IEEE International Conference on Automation Science and Engineering, Xi'an, China, August 2017

Session Chair, The 10th CSAMSE Annual Conference, Guangzhou, China, July 2017

Technical Program Committee Member, 2016 Winter Simulation Conference, Washington, D.C., December 2016

Session Chair, 2016 INFORMS Annual Meeting, Nashville, TN, November 2016

Scientific Program Committee Member and Session Chair, 8th International Workshop on Applied Probability (IWAP), Toronto, Canada, June 2016

Session Chair, 8th CSAMSE Annual Conference, Shenyang, China, July 2015

Program Committee Member, 23rd IASTED International Conference on Modelling and Simulation, Banff, Canada, July 2012

Session Chair, 2011 INFORMS Annual Meeting, Charlotte, NC, November 2011

Session Chair, 2011 INFORMS Northeast Regional Conference, Amherst, MA, May 2011

Session Chair, 2009 INFORMS Annual Meeting, San Diego, CA, October 2009

Journal Reviewer

Operations Research; Management Science; Manufacturing & Service Operations Management; INFORMS Journal on Computing; Production and Operations Management; IIE Transactions; Naval Research Logistics; Automatica; IEEE Transactions on Automatic Control; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Systems, Man, and Cybernetics: Systems; European Journal of Operational Research; Transportation Research Part B: Methodological; Transportation Research Part E: Logistics and Transportation Review; International Journal of Production Research; Journal of the Operational Research Society; Decision Sciences; Omega; Journal of Purchasing and Supply Management; etc.

Memberships

Institute for Operations Research and the Management Science (INFORMS), member since 2007 & senior member since 2024

Production and Operations Management Society (POMS), member since 2016

Institute of Electrical and Electronics Engineers (IEEE), member since 2008 & senior member since 2016

UNIVERSITY SERVICE

Student Advisory

Ph.D. Student Advisor

- Tonghua Lin, 2023–present
- Xinyi Huang (Business Analytics at University of Iowa, co-advised with Dr. Weiguo Fan), expected to graduate in 2026
- Gul Culhan Kumcu (co-advised with Dr. Mark Rodgers), graduated in 2023
- Zhe Jian (co-advised with Dr. Lei Lei), graduated in 2017
- Zhengwei Wang (co-advised with Dr. Lei Lei), graduated in 2016

Ph.D. Dissertation Committee Member

- Chenhao Zhou, expected to graduate in 2026
- Behrang Bootaki (IMSE at University of Windsor), graduated in 2025
- Di Kang (Civil Engineering), graduated in 2024
- Qiang Li, graduated in 2021
- Junming Liu (Information Systems), graduated in 2019
- Phat Vinh Luong, graduated in 2018
- Irene Akaab, graduated in 2018
- He Zhang, graduated in 2018
- Zhijian Hong (Marketing), graduated in 2017
- Irene Gerlovin, graduated in 2017
- Ju Myung Song, graduated in 2017
- Kwon Gi Mun, graduated in 2016
- Andrew Johnson, graduated in 2015
- Raza Rafique, graduated in 2015
- Hui Dong, graduated in 2014

School Service

Ex officio, MBA Admission Committee, Rutgers Business School, since 2023

Ex officio and convener, Graduate Academic Standing Committee, Rutgers Business School, since 2023

Ex officio, MBA Policy Committee, Rutgers Business School, since 2023

Member, Special Programs Policy Committee, Rutgers Business School, 2021–2023

Member, Ad Hoc Committee on Faculty Professional Conduct, Rutgers Business School, 2019

Member, Nominating/Rules of Procedure Committee, Rutgers Business School, 2019

Member, Research Resources Committee, Rutgers Business School, 2018–2020

Member, New Brunswick Undergraduate Policy Committee, Rutgers Business School, 2016

Faculty Mentor, School of Arts and Sciences Honors Program (SASHP), Rutgers University–New Brunswick, 2015–2017

Founding Advisor, American Society for Quality Rutgers University–New Brunswick student branch (RU-ASQ), 2014–2016

Department Service

SCM Non-Tenure Track (NTT) Faculty Reappointment Committee, 2020–2023

SCM Seminar Series Coordinator, 2016–2017

SCM Newark Undergraduate Program Academic Coordinator, 2016–2017

Advisor of the Rutgers undergraduate team and the MBA team in the Rutgers Ten Plus Supply Chain Case Dual Challenge, New Brunswick, NJ, March 2015 (The undergraduate team won the first place in the competition.)

Co-Advisor of the Rutgers MBA team in the Sam M. Walton College of Business International Graduate Logistics Case Competition, Fayetteville, AR, March 2015 (Team won the third place in the competition.)

SCM Ph.D. Qualifying Examination Committee, 2014–2023

SCM Ph.D. Admission Committee, since 2014