Jue Wang
Queen's University, Smith School of Business,
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Research areas: sustainability, wildlife operations research, biodiversity conservation, reinforcement learning, optimal control.

Academic Appointments

Queen's University, Smith School of Business, Kingston, Ontario, Canada

Associate Professor, tenured (2023–present)

Distinguished Faculty Fellow of Management Analytics (2021-present)

Assistant Professor (2016–2022)

Cornell University, SC Johnson School of Management, Ithaca, New York, USA

(Sabbatical) Visiting Scholar (January-December 2024)

University of Toronto, Centre for Maintenance Optimization & Reliability Engineering, Toronto, Ontario, Canada

Affiliate Professor (2019–present)

Education

Ph.D. Industrial Engineering, University of Toronto, Toronto, Canada

B.Eng. Biomedical Engineering, Xi'an Jiaotong University, Xi'an, China

Publications (* Student supervised, ** Ecologist)

Wang, J, X.Song*, R. Yousefi*, Z. Jiang**, Optimal learning and management of threatened species, ***Management Science*** (published online Sep.18, 2024) https://doi.org/10.1287/mnsc.2023.01753

Wang, J. (2024) Learning to balance the performance and deterioration of aging systems through derating, ***Production & Operations Management*** (forthcoming)

Wang, J. (2022) Optimal sequential multi-class diagnosis. ***Operations Research,*** 70(1), 201–222

Wang, J. (2021) Optimal Bayesian demand learning over short horizons. ***Production & Operations Management,*** 30(4), 1154-1177

Wang, J. Levin Y., Nediak M. (2020) Selling passes to strategic customers. ***Operations Research***, 68(4), 1095–1115

Wang, J. (2016) Minimizing the false alarm rate in systems with transient abnormality. ***Naval Research Logistics***, 63(4), 320–334

Wang, J., Lee, C.G. (2015) Multi-state Bayesian control chart over a finite horizon. ***Operations Research***, 63(4), 949–964

Working Papers

J. Wang, B. J. Hanley**, N. E. Thompson**, D. P. Walsh**, Y. Huang**, C. Gonzalez-Crespo**, J. G. Booth, J. N. Caudell**, K. P. Hynes**, L. A. Miller**, F. H. Hodel, and K. L. Schuler**, Strategic allocation of surveillance and prevention resources for emerging wildlife disease

Y. Xie, **J. Wang**, J. Hanson**, J. Bennett**, Optimal wildlife monitoring in a dynamic world

L. Chen, **J. Wang**, X. Yan, Birdbnb: Data-driven pitstop support for migrating birds

Y. Gong*, J. Zhang, **J. Wang**, Saving whales with optimal control

A. Ovchinnikov, **J. Wang**, Which customers are more valuable in dynamic pricing situations?

J. Wang, Y. Levin, M. Nediak, Dynamic price competition under strategic repeat purchase

X. Song, **J. Wang**, Active sequential learning through belief reconstruction

L. Chen, J. Li, **J. Wang**, A variational inference method for Bayesian dynamic control

Fellowships and Awards

Distinguished Faculty Fellow of Management Analytics (Research), Smith School of Business, Queen's University (2024-2026)

New Researcher Achievement Award, Smith School of Business, Queen's University, 2021

Distinguished Faculty Fellow of Management Analytics, Smith School of Business, Queen's University (2021-2023)

Scotiabank scholar, Smith School of Business, Queen's University (2018–present)

Second place (Open category), Canadian Operations Research Society Student Paper Competition (2013)

University of Toronto Early-Stage Technology Award for promising information technology (2012)

First place, Quantitative Finance & Risk Management Student Paper Competition (2012)

Best oral presentation, Research symposium of the Department of Mechanical & Industrial Engineering, University of Toronto (2011)

Research Grants

Natural Resources Canada Research Fund $22,000 (2024)

Principal Investigator, MITACS Accelerate Grant $60,000 (2022-2023)

Distinguished Faculty Fellow of Management Analytics, Smith School of Business, Queen's University, $70,000 (2024-2026)

Distinguished Faculty Fellow of Management Analytics, Smith School of Business, Queen's University,

$45,000 (2021-2024)

Co-recipient, MITACS Accelerate Grant (2020)

Principal Investigator, Discovery Grant (Individual), Natural Sciences and Engineering Research Council of Canada (NSERC), $142,500 (2019–2024)

Co-recipient, NSERC Collaborative Research and Development (CRD) Grant $ 159,400 (2019–2020)

Co-recipient, Monieson Centre "Future of Business Research" Grant, $9,000 (2018–2020)

Co-recipient, NSERC Collaborative Research and Development (CRD) Grant (2017–2021)

Smith School of Business General Research Grant, $9,000 (2017–2018)

Research Initiation Grant, Queen's University, $45,000 (2016–2019)

Academic Service

Ad-hoc reviewer for *Operations Research, Management Science, Manufacturing & Service Operations Management, Production & Operations Management, Naval Research Logistics, European Journal of Operations Research, Critical Care Medicine, Health Care Management Science, Omega*

Cluster chair (Revenue Management), Canadian Operations Research Society (CORS) Annual Meeting, 2019, 2023, 2024

Session chair: CORS 2012, 2016, 2017, 2018, 2020, 2022, 2024 INFORMS 2016, 2017, 2019, 2020, 2021, 2022, 2023, 2024

Invited Talks

University College London, School of Management
Cornell University, Johnson School of Management
University of Hong Kong Business School
Shanghai Jiaotong University, Industrial Engineering
The Hong Kong University of Science and Technology Business School
National University of Singapore, Industrial Systems Engineering and Management
Institute of Zoology, Chinese Academy of Sciences
McMaster University, DeGroote School of Business
University of Toronto, Rotman School of Business
University of Alberta, Alberta School of Business
Zhejiang University, School of Management
University of Science and Technology of China, School of Management,
UBC, Sauder School of Business
Huazhong University of Science and Technology
Sophia University, Department of Economics
Kyoto University, Research Institute of Mathematical Sciences
Chinese University of Hong Kong, Systems Engineering & Engineering Management

Hong Kong Polytechnic University, Department of Logistics and Maritime Studies,
City University of Hong Kong, Department of Management Science
Korea Advanced Institute of Science & Technology (KAIST), Industrial & System Engineering, Korea

Students Supervised

Yu Gong, PhD (2024-present)
Yi Zhang, PhD (2023-present)
Alireza Farhang-Doost, PhD (2018-2024)
Roozbeh Yousefi, PhD (2016-2022),
Roozbeh Yousefi, Postdoc (2022-2023),
Tian Xie, MASc (2022)
Zheng Xu, summer student (2020)
Xueze Song, summer student (2018)
Kuan Zeng, visiting PhD student (2018)

Teaching Experience

Queen's University

MMA 867: Predictive Analytics (2019 - Present)

MMA 865: Big Data Analytics (2021)

MMA 847: Capstone Projects (2021-2022)

MMA 867: Multivariate Statistical Analysis (2018 Summer)

COM 161: Introduction to Mathematical Analysis for Management (2016 Fall, 2017 Fall)

COM 162: Managerial Statistics (2016 Winter)

University of Toronto

MIE 1605: Stochastic Processes (2012 Fall, 2013 Fall, 2014 Fall)

MIE 1615: Markov Decision Processes (2015 Spring)