

NATALIE (XIMIN) HUANG

Rutgers School of Business – Camden, Camden, NJ, USA

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EMPLOYMENT

Rutgers University – Camden Assistant Professor	2025 – present
Carlson School of Management, University of Minnesota Assistant Professor	2016 – 2025

EDUCATION

Georgia Institute of Technology , Atlanta, GA Ph.D. in Operations Management Thesis: Primary and Secondary Market Strategies for Regulatory Compliance and Profit	2011 – 2016
University of Hong Kong , Hong Kong Master of Philosophy (M.Phil.) in Applied Mathematics Thesis: Mathematical Models for Coordination in Supply Chain Management <i>Outstanding Research Postgraduate Student</i>	2009 – 2011
University of Hong Kong , Hong Kong Bachelor of Science (Major in Mathematics and Finance) <i>Graduated with First Class Honor</i> <i>Dean's Honors List</i>	2006 – 2009

RESEARCH INTERESTS

Sustainable Operations, Environmental Regulation, Product Recovery Strategies and Economics, Circular Economy, Sharing Economy, Supply Chain Management

ARTICLES - PUBLISHED OR UNDER REVIEW

1. Agrawal V., I. Bellos, **X. Huang**, 2025. Economic and Environmental Implications of Ride-Hailing and Vehicle Age Limits for Car Sales Markets, under revision.
 - Selected for *Early-Career Sustainable Operations Workshop 2023*
 - Selected for *Manufacturing and Service Operations Management Conference SIG 2023*
2. **Huang X.**, W. Xiao, F. Shan, A. Vedantam, 2025. Fighting Plastic Pollution: Product Ban Regulation and Voluntary Compliance, under revision.
 - Selected for *Manufacturing and Service Operations Management Main Conference 2024*
3. **Huang X.**, K. Natajara, K. Ramachandran, 2025. Scaling Prosocial Innovations: Balancing Product Localization and Pricing, under revision.
4. Lian J., S. Song, **X. Huang**, Y. Dong, 2025. Environmental Disclosure in Supply Networks, under revision.
5. **Huang X.**, A. Atasu, N. Tereyagolu, L. B. Toktay, 2023. Lemons, Trade-Ins, and Certified Pre-Owned Programs, *Manufacturing & Service Operations Management*, 25(2), pp. 737 – 755.

6. **Huang X.**, T. Tan, L. B. Toktay, 2020. Carbon Leakage: The Impact of Asymmetric Emission Regulation on Technology and Capacity Investments. *Production and Operations Management*, 30(6), pp. 1886 – 1903.
7. Atasu A., C. J. Corbett, **X. Huang**, L. B. Toktay, 2020. Sustainable Operations Management Through the Perspective of Manufacturing & Service Operations Management. *Manufacturing & Service Operations Management*, 22(1), pp. 146 – 157.
8. **Huang X.**, A. Atasu, L. B. Toktay, 2019. Design Implications of Extended Producer Responsibility for Durable Products, *Management Science*, 65(6), pp. 2573–2590.
 - Runner-up, 2016 POMS College of Sustainable Operations Student Paper Competition
9. Alev I., **X. Huang**, A. Atasu, L. B. Toktay, 2019. A Case Discussion on Market-Based Extended Producer Responsibility: The Minnesota Electronics Recycling Act, *Journal of Industrial Ecology*, 23(1), pp.208–221.
10. **Huang X.**, J-W Gu, W-K Ching, T-K Siu, 2014. Impact of Secondary Market on Consumer Return Policies and Supply Chain Coordination, *OMEGA*, 45, pp. 57–70.
11. **Huang X.**, S-M Choi, W-K Ching, T-K Siu, M. Huang, 2013. On Supply Chain Coordination for False Failure Returns: A Quantity Discount Contract Approach, *International Journal of Production Economics*, 133(2), pp. 634–644.
12. **Huang X.**, N. Song, W-K Ching, T-K Siu, K. F. C. Yiu, 2012. Real Option Approach to Optimal Inventory Management of Retail Products, *Journal of Industrial and Management Optimization*, 8(2), pp. 379–389.
13. Ching W-K, S-M Choi, **X. Huang**, 2011. Inducing High Service Capacities in Outsourcing via Penalty and Competition, *International Journal of Production Research*, 49(7), pp. 5169–5182.
14. **Huang X.**, S-M Choi, W-K Ching, 2010. On Improving Incentive in A Supply Chain: Wholesale Price Contract vs Quantity Dependent Contract, *The 40th International Conference on Computers and Industrial Engineering Proceeding*, Awaji, Japan.

ARTICLES - WORKING PAPER

15. **Huang X.**, 2025. Sustainability of Secondary Market for Fast Fashion, Working paper.

BOOKS

17. Ching W-K, **X. Huang**, M. K. Ng, T-K Siu, *Markov Chains: Models, Algorithms and Applications*. Springer, 2013.
18. Ching W-K, **X. Huang**, M. K. Ng, T-K Siu, *Markov Chains: Models, Algorithms and Applications (Chinese Version)*. Tsinghua University Press, 2015.

BOOK CHAPTERS

19. **Huang X.**, A. Atasu, 2024. Operational Implications of Environmental Regulation, in *Sustainable Supply Chains*, Bouchery Y., T. Tan, J. Fransoo, C. Corbett (Eds). Springer.
20. Gui L., **X. Huang**, A. Atasu, L. B. Toktay, 2016. Design Implications for EPR, in *Environmentally Responsible Supply Chains*, Atasu A. (Ed). Springer.

- Alev, I., A. Atasü, O. Ergun, L. Gui, **X. Huang**, L. B. Toktay. 3 Ways to Fix E-Waste Regulations, Op-ed in The Huffington Post (4/13/2016), and ARCS Blog (4/13/2016).
- Durability vs. Recyclability: Dueling Goals in Making Electronics More Sustainable, Scheller News, Georgia Institute of Technology, April 2019. French version available at: <https://bit.ly/3MRpsWk>.
- Seeks Out Electronics Recycling Solutions, Spring UMN Carlson School Alumni Magazine, 2019.
- Faced with Paying A Dime, Most Best Buy Shoppers Gave Up Plastic Bags, Star Tribune, 2021.
- 1 Big Thing: Reduce, Reuse, Recycle, Axios, 2021.
- Certified Pre-Owned Cars Positively Impact Market, Spring UMN Carlson School Discovery Magazine, 2023.

ACADEMIC SERVICE AND AFFILIATIONS

Academic Service:

Co-chair: MSOM 2025 Sustainable Operations SIG Day Conference

Board Member - Vice President for Meetings: POMS College of Sustainable Operations, 2022-2024

Board Member - Online Editor: POMS College of Sustainable Operations, 2020 - 2022

Co-chair: POMS Sustainable Operations Management track at POMS 2023

Co-chair: MSOM Sustainable Operations SIG track at INFORMS 2022

Conference Organizing:

2024 POMS College of Sustainable Operations Mini-Conference

2023 POMS College of Sustainable Operations Mini-Conference

Session Chair:

2025 POMS Annual Conference, Atlanta, GA

2024 POMS Annual Conference, Minneapolis, MN

2023 INFORMS Annual Conference, Phoenix, AZ

2023 POMS Annual Conference, Orlando, FL

2020 POMS Annual Conference, Minneapolis, MN

2019 INFORMS Annual Conference, Seattle, WA

2019 POMS Annual Conference, Washington D.C.

2018 INFORMS Annual Conference, Phoenix, AZ

2018 POMS Annual Conference, Houston, TX

2017 POMS Annual Conference, Seattle, WA

2016 POMS Annual Conference, Orlando, FL

2016 INFORMS Annual Conference, Nashville, TN

2015 POMS Annual Conference, Washington D.C.

Judge for:

2024 MSOM Sustainable Operations SIG

2023 MSOM Sustainable Operations SIG

2022 MSOM Sustainable Operations SIG

2023 POMS College of Sustainable Operations Student Paper Competition

2021 POMS College of Sustainable Operations Student Paper Competition

2019 U.S. Department of Energy (DOE): Lithium-Ion Battery Recycling Prize

2018 POMS College of Sustainable Operations Student Paper Competition

2017 POMS College of Sustainable Operations Student Paper Competition

Reviewer for:

Research Grants Council (RGC) of Hong Kong
National Science Foundation, Decision, Risk, and Management Sciences (DRMS) Program
Manufacturing & Service Operations Management
Management Science
Production and Operations Management
Journal of Operations Management
Decision Sciences
Naval Research Logistics
OMEGA
International Journal of Production Economics
International Transactions in Operational Research
Resources, Conservation and Recycling

Department Service:

Department Representative, Undergraduate Faculty Advisory Committee, 2024 - 2025
Member, Tenure-Track Faculty Recruitment Committee, 2018 - 2019, 2021 - 2022
Member, Ph.D. Recruitment Committee, 2023-2024
Chair, Supply Chain and Operations Department Seminar Series, 2018 - 2023
Chair, core course re-design for "Sustainable Supply Chain and Operations," 2021 - 2022

Member of: Institute of Operations Research and Management Science (INFORMS), Manufacturing and Service Operations Society (MSOM), Production and Operations Management Society (POMS)

AWARDS AND GRANTS

M&SOM Meritorious Service Award	2021,2022,2023
Professor Timothy J. Nantell Fund for Excellence in Teaching	2018
Early Career Teaching and Learning Program Grant	2018
2016 POMS College of Sustainable Operations Student Paper Competition, Runner-up	2016
Dean's Fellowship, Georgia Institute of Technology	2011- 2016
Ashford Watson Stalnaker Memorial Prize, Georgia Institute of Technology	2015
Academy of Management and POMS Doctoral Consortiums	2015
Hong Kong Ph.D. Fellowship, Hong Kong	2011
Outstanding Research Postgraduate Student, University of Hong Kong	2011

INVITED SEMINARS AND PRESENTATIONS

Ivey Business School - London, ON
Paul Merage School of Business, University of California - Irvine
Fuqua School of Business, Duke University
Paul Merage School of Business, University of California - Irvine
Supply Chain Management Conference 2024, Gies College of Business, UIUC
Purdue Operations Conference 2024, Daniels School of Business, Purdue University
Purdue Operations Conference 2023, Daniels School of Business, Purdue University
Knauss School of Business, University of San Diego
Policy, Awareness, Sustainability and Systems Workshop, Carlson School of Management, University of Minnesota
Business School, University of Illinois Chicago
Olin Business School, Washington University in St. Louis
McDonough School of Business, Georgetown University

SELECTED CONFERENCE PRESENTATIONS

Fighting Plastic Pollution: Product Ban Regulation and Voluntary Compliance

2024 INFORMS Annual Conference, Seattle, WA

2024 MSOM Annual Conference, Minneapolis, MN

2024 POMS Annual Conference, Minneapolis, MN

Economic and Environmental Implications of Vehicle Age Limit Requirement in Ridesharing

2023 MSOM Annual Conference SIG, Montreal, QC

2023 POMS Annual Conference, Orlando, FL

2023 Early-Career Sustainable Operations Workshop, Amherst, MA

When To Regulate? The Case With Extended Producer Responsibility

2023 INFORMS Annual Conference, Phoenix, AZ

2023 POMS Annual Conference, Orlando, FL

From Vision to Reality: The Operationalization of Sustainability

2021 Supply Chain Lightning Talk Series (online)

Lemons, Trade-Ins, and Remanufacturing

2017 INFORMS Annual Conference, Houston, TX

2016 POMS Annual Conference, Orlando, FL

2015 M&SOM Conference, Toronto, ON

Design Implications of Extended Producer Responsibility: Durable or Recyclable Goods?

2016 INFORMS Annual Conference, Nashville, TN

2015 INFORMS Annual Conference, Philadelphia, PA

2014 M&SOM Conference, Seattle, WA

Carbon Leakage: The Impact of Asymmetric Emission Regulation on Technology and Capacity Investments

2016 POMS Annual Conference, Orlando, FL

2014 INFORMS Annual Conference, San Francisco, CA

TEACHING EXPERIENCE

Carlson School of Management, University of Minnesota

Sustainable Supply Chain and Operations

Sourcing and Supply Management

Ph.D. Seminar on Sustainable and Socially Responsible Operations

Carlson Undergraduate Honors Thesis Advisor (Kristen Ho)

Scheller College of Business, Georgia Institute of Technology

Management Science, core undergraduate course