Stefanus Jasin

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CONTACT INFORMATION	Stephen M. Ross School of Business University of Michigan 701 Tappan St, Room R5310 Ann Arbor, MI 48109 Work: +1-734-764-2305 E-mail: sjasin@umich.edu

RESEARCH INTERESTS

Primary interests: Algorithmic and prescriptive business analytics, artificial intelligence (AI)

Application areas: Revenue management, assortment optimization, dynamic pricing, retail analytics, e-commerce/omni-channel logistics, fulfillment optimization, return management, supply chain and inventory management, online learning and optimization.

ACADEMIC APPOINTMENTS

Stephen M. Ross School of Business (University of Michigan)
• Professor of Technology and Operations (tenured)	Starting Fall 2024
• Associate Professor of Technology and Operations (tenured)	Winter 2019-Summer 2024
• Assistant Professor of Technology and Operations	Fall 2011-Winter 2018

Tepper School of Business (Carnegie Mellon University)
• Visiting Associate Professor of Operations Management	Fall 2024-Winter 2025
• Visiting Assistant Professor of Operations Management	Fall 2018

NON-ACADEMIC APPOINTMENTS

Target Corporation
• Visiting academic	Starting Fall 2024

EDUCATION

Stanford University
- MS/PhD in Computational Mathematics and Engineering
  (PhD advisor: Sunil Kumar)
- MS in Statistics

University of California, Berkeley
- BA in Mathematics

ACCEPTED/ PUBLISHED PAPERS

1. Sentao Miao, Stefanus Jasin, Xiuli Cao. **Near-Optimal Mixed (s, S) Policy for a Multi-Warehouse Multi-Store Inventory System with Lost Sales and Fixed Cost**. *Accepted at Operations Research*.

2. Xiuli Chao, Stefanus Jasin, Sentao Miao. 2024. **Adaptive Lagrangian Policies for Multi-Warehouse Multi-Store Inventory System with Lost Sales**. *Accepted at Operations Research*.
   - Presented at MSOM SIG 2023

3. Qing Wang, Ruihao Zhu, Stefanus Jasin. 2024. **Phase Transitions in Learning and Earning under Price Protection Guarantee**. *Operations Research*, 73 (2): 775-797.
   - Conference version published in EC'23: Proceedings of the 24th ACM Conference on Economics and Computation, July 2023, pg. 656

4. Sajjad Najafi, Izak Duenyas, Stefanus Jasin, Joline Uichanco. 2023. **Multi-Product Dynamic Pricing (and Ranking) with Limited Inventories under Cascade Click Model**. *Manufacturing and Service Operations Management*, 26 (2): 554-572.

5. Yiwei Chen, Stefanus Jasin. 2023. **Simple Monotonic Readjustment Policies with Applications to Markdown Pricing and Pricing in the Presence of Strategic Customers**. *Operations Research*, 72 (5): 1893-1905.

6. Lyu Chengyi, Stefanus Jasin, Sajjad Najafi, Huanan Zhang. 2023. **Assortment Optimization with Multi-Item Basket Purchase under Multivariate MNL Model**. *Manufacturing and Service Operations Management*, 26 (1): 215-232.
   - Presented at MSOM SIG 2023
   - Finalist, POMS-HK Best Student Paper Competition 2023

7. Qi Chen, Yanzhe Lei, Stefanus Jasin. 2023. **Real-Time Spatial-Intertemporal Pricing and Relocation in a Ride-Hailing Network: Near Optimal Policies and the Value of Dynamic Pricing**. *Operations Research*, 72 (5): 2097-2118.

8. Yanzhe Lei, Sheng Liu, Stefanus Jasin, Andrew Vakhutinsky. 2023. **Joint Inventory and Pricing for a One-Warehouse Multi-Store Problem: Spiraling Phenomena, Near Optimal Policies, and the Value of Dynamic Pricing**. *Operations Research*, 72 (2): 738-762.

9. Qiaochu Wang, Yan Huang, Param Vir Singh, Stefanus Jasin. 2023. **Algorithmic Transparency with Strategic Users**. *Management Science*, 69 (4): 2297-2317.
   - Winner, AIS Senior Scholars Best Information Systems Publication Award 2024

10. Sentao Miao, Stefanus Jasin, Xiuli Chao. 2022. **Asymptotically Optimal Lagrangian Inventory Policies for Multi-Warehouse Multi-Store System with Lost Sales**. *Operations Research*, 70 (1): 141-159.
    - Presented at MSOM SIG 2021

11. Huanan Zhang, Stefanus Jasin. 2022. **Online Learning and Optimization of (Some) Cyclic Pricing Policies for Revenue Management with Patient Customers**. *Manufacturing and Service Operations Management*, 24 (2): 1165-1182.

12. Yanzhe Lei, Stefanus Jasin, Joline Uichanco, Andrew Vakhutinsky. 2022. **Joint Product Framing (Display, Ranking, Pricing) and Order Fulfillment under the MNL Model for E-Commerce Retailers**. *Manufacturing and Service Operations Management*, 24 (3): 1529-1546.

13. Xiangyu Gao, Stefanus Jasin, Sajjad Najafi, Huanan Zhang. 2022. **Joint Learning and Optimization of Multiproduct Pricing (and Ranking) under a General Cascade Click Model**. *Management Science*, 68 (10): 7362-7382.
    - Finalist, POMS-JD.com Best Paper Competition 2019

14. Qi Chen, Izak Duenyas, Stefanus Jasin. 2022. **Optimal Use and Replenishment of Two Substitutable Raw Materials in a Nonstationary Capacitated Make-to-Order Production System**. *Manufacturing and Service Operations Management*, 24 (4): 2274-2292.

15. Lai Wei, Stefanus Jasin, Linwei Xin. 2021. **On a Deterministic Approximation of Stochastic Inventory Systems with Sequential Probabilistic Service Level Constraints**. *Operations Research*, 69 (4): 1057-1076.

16. Qi Chen, Stefanus Jasin, Izak Duenyas. 2021. **Technical Note—Joint Learning and Optimization of Multi-Product Pricing with Finite Resource Capacity and Unknown Demand Parameters**. *Operations Research*, 69 (2): 560-573.

17. Lai Wei, Roman Kapuscinski, Stefanus Jasin. 2021. **Shipping Consolidation across Two Warehouses with Delivery Deadline and Expedited Options for E-Commerce and Omni-Channel Retailers**. *Manufacturing and Service Operations Management*, 23 (6): 1634-1650.
    - Finalist, MSOM Student Paper Competition 2018

- Finalist, IBM Best Student Award (INFORMS Service Science) Competition 2018

18. Yanzhe Lei, Stefanus Jasin. 2020. **Real-Time Dynamic Pricing for Revenue Management with Reusable Resources, Advanced Reservations, and Deterministic Service Time Requirements**. *Operations Research*, 68 (1): 676-685.

19. Yan Huang, Stefanus Jasin, Puneet Manchanda. 2019. **Level Up: Leveraging Skill and Engagement to Maximize Player Retention in Online Video Games**. *Information Systems Research*, 30 (3): 927-947.
    - Winner, INFORMS eBusiness Best Paper Award 2017

20. Gabriel Zayas Caban, Stefanus Jasin, Guihua Wang. 2019. **An Asymptotically Optimal Heuristic for General Nonstationary Finite-Horizon Restless Multi-Armed Multi-Action Bandits**. *Advances in Applied Probability*, 51 (3): 745-772.

21. Qi Chen, Stefanus Jasin, Izak Duenyas. 2019. **Nonparametric Self-Adjusting Control for Joint Learning and Optimization of Multiproduct Pricing with Finite Resource Capacity**. *Mathematics of Operations Research*, 44 (2): 601-631.

22. Hakjin Chung, Hyun Soo Ahn, Stefanus Jasin. 2019. **(Re-Scaled) Multi-Attempt Approximation of Choice Model and Its Application to Assortment Optimization**. *Production and Operations Management*, 28 (2): 341-353.

23. Yanzhe Lei, Stefanus Jasin, Amitabh Sinha. 2018. **Joint Dynamic Pricing and Order Fulfillment for E-Commerce Retailers**. *Manufacturing and Service Operations Management*, 20 (2): 269-284.
    - Second prize, POMS-HK Best Student Paper Competition 2017

24. Hyun Soo Ahn, Stefanus Jasin, Philip Kaminsky, Yang Wang. 2018. **Analysis of Deterministic Control and Its Improvements for an Inventory Problem with Multi-Product Batch Differentiation**. *Operations Research*, 66 (1): 58-76.

25. Qi Chen, Stefanus Jasin, Izak Duenyas. 2016. **Real-Time Dynamic Pricing with Minimal and Flexible Price Adjustments**. *Management Science*, 62 (8): 2437-2455.

26. Stefanus Jasin, Amitabh Sinha. 2015. **An LP-Based Correlated Rounding Scheme for Multi-Item E-Commerce Order Fulfillment**. *Operations Research*, 63 (6): 1336-1351.

27. Stefanus Jasin. 2015. **Performance of an LP-based Control for Revenue Management with Unknown Demand Parameters**. *Operations Research*, 63 (4): 909-915.

28. Stefanus Jasin. 2014. **Re-Optimization and Self-Adjusting Price Control for Network Revenue Management**. *Operations Research*, 62 (5): 1168-1178.
    - Winner, INFORMS Revenue Management and Pricing Section Prize Award 2018.

29. Stefanus Jasin, Sunil Kumar. 2013. **Analysis of Deterministic LP-based Heuristics for Network Revenue Management**. *Operations Research*, 61 (6): 1312-1320.

30. Stefanus Jasin, Sunil Kumar. 2012. **A Re-Solving Heuristic with Bounded Revenue Loss for Network Revenue Management with Customer Choice**. *Mathematics of Operations Research*, 37 (2): 313-345.

PAPERS UNDER
REVIEW/REVISION

1. Jinzhi Bu, Huanan Zhang, Stefanus Jasin. **Asymptotic Optimality of Simple Replenishment Policies for a Lost-Sales Inventory System with Delivery Lead Time and Purchase Returns**. *Under 2nd round review*.

2. Sajjad Najafi, Zhiyuan Sun, Stefanus Jasin. **Pricing and Assortment Optimization under an MNL Model with Default Specific Consideration**. *Under 1st round review*.

3. Stefanus Jasin, Yanzhe Lei, Jiaxin Liang, Lai Wei. **Expected Profit of the Best Fixed-Price Policy Could Decay Exponentially in Lead Time**. *Under 1st round review*.

4. Zhuodong Tang, Stefanus Jasin, Izak Duenyas. **On the Performance of Revenue-Ordered Policies for a Multi-Period Assortment Optimization Problem under an MNL Model with Popularity Effect**. *Under 1st round review*.

5. Jiaxin Liang, Stefanus Jasin, Joline Uichanco. **Assortment and Inventory Planning under Dynamic Substitution with MNL Model and Capacity Constraints: A Linear Programming Approach**. *Under 3rd major revision*.

6. Sajjad Najafi, Stefanus Jasin, Joline Uichanco, Jinglong Zhao. **Assortment Optimization under a Multi-Attribute (Contextual) Choice Model**. *Under 2nd major revision*.

7. Stefanus Jasin, Sheng Liu, Jinglong Zhao. **Inventory Allocation under the Greedy Fulfillment Policy: The (Potential) Perils of the Hindsight Approach**. *Under major revision*.

8. Jiaxin Liang, Stefanus Jasin, Joline Uichanco. **Asymptotically Optimal Dynamic Pricing in the Presence of Stochastic Purchase Returns**. *Under major revision*.
   - Presented at MSOM SIG 2023
   - Second prize, POMS-HK Best Student Paper Competition 2022
   - Winner, EURO Pricing and Revenue Management Student Award 2022

9. Jiaxin Liang, Stefanus Jasin, Xiuli Chao. **Assortment and Inventory Planning under Dynamic (Stockout-based) Substitution in the Presence of Customer Returns: A Fluid Analysis**. *Under major revision*.

OTHER
PUBLICATIONS

1. Co-editors (with Xi Chen and Cong Shi) of a book titled **The Elements of Joint Learning and Optimization in Operations Management**, published by Springer, September 2022.

2. Stefanus Jasin, Amitabh Sinha, Joline Uichanco. **Omni-Channel Operations: Challenges, Opportunities, and Models**. A chapter in the book *Operations in an Omnichannel World* published by Springer, September 9, 2019.

3. Joline Uichanco, Stefanus Jasin. **Putting the Customer First: How Researchers are Hoping to Optimize a New Flexible Retail Model**. An article appeared at researchfeatures.com, July 9, 2018.

SELECT
INVITED TALKS

- University of North Carolina at Chapel Hill (Operations Management seminar, 2025)
- George Washington University (Decision Science seminar, 2025)
- University of Alberta (Department of Accounting and Business Analytics seminar, 2025)
- University of Waterloo (MSE Seminar, 2025)
- Carnegie Mellon University (Tepper OM Seminar, 2025)
- Target (research shareout, 2024)
- Ohio State University (OBA Seminar, 2024)
- Chinese University of Hong Kong, Shenzhen (2024)
- Chinese University of Hong Kong, Hong Kong (2024)

- Hong Kong University of Science and Technology (2024)
- University of Hong Kong (2024)
- University of California at Berkeley (IEOR Seminar, 2023)
- Cornell University Symposium on New Frontiers in Revenue Management (OTIM, 2023)
- University of Minnesota (ISyE Seminar, 2023)
- University of Wisconsin at Madison (ISyE Seminar, 2023)
- National University of Singapore (IORA Seminar, 2022)
- University of Chicago (Booth OM Seminar, 2022)
- University of Maryland (DO&IT Seminar, 2021)
- University of Texas at Austin (McCombs IROM Seminar, 2021)
- Northwestern University (Kellogg Seminar, 2021)
- Columbia University (DRO - IEOR Seminar, 2021)
- Indian Institute of Management Ahmedabad (Research Seminar, 2020)
- McGill University (MSRC Seminar, 2020)
- Erasmus University (Rotterdam Seminar, 2020)
- MIT (DSL Seminar, 2020)
- Tsinghua University (2019)
- International Symposium on Revenue Management (Zhejiang University, China, 2019)
- JHU-Carey Symposium on Data-Driven Decision Making (John Hopkins University, 2019)
- Oracle Lab (Machine Learning Seminar, 2018)
- Boston College (Walter Klein OM Seminar, 2018)
- Carnegie Mellon University (Tepper OM Seminar, 2018)
- University of Southern California (Marshall OM Seminar, 2018)
- University of Chicago (Booth OM Seminar, 2017)
- MIT (DSL Seminar, 2016)
- Carnegie Mellon University (Tepper OM Seminar, 2014)
- University of Michigan at Ann Arbor (Ross OM Seminar, 2011)
- Duke University (Fuqua Decision Science Seminar, 2011)
- MIT (Sloan OM Seminar, 2011)
- New York University (Stern OM Seminar, 2011)
- Northwestern University (Kellogg OM Seminar, 2011)
- HP Lab (2010)

AWARDS AND HONORS

- Winner, AIS Senior Scholars Best Information Systems Publication Award 2024
  (with Qiaochu Wang, Yan Huang, and Param Vir Singh)

- Finalist, POMS-HK Best Student Paper Competition 2023
  (with Chengyi Lyu, Sajjad Najafi, and Huanan Zhang)

- Winner, EURO Pricing and Revenue Management Student Award 2022
  (with Jiaxin Liang and Joline Uichanco)

- Second prize, POMS-HK Best Student Paper Competition 2022
  (with Jiaxin Liang and Joline Uichanco)

- Finalist, POMS-JD.com Best Paper Competition 2019
  (with Xiangyu Gao, Sajjad Najafi, and Huanan Zhang)

- Winner, INFORMS Revenue Management and Pricing Section Prize Award 2018

- Finalist, MSOM Student Paper Competition 2018
  (with Lai Wei and Roman Kapuscinski)

- Finalist, IBM Best Student Award Competition 2018

(with Lai Wei and Roman Kapuscinski)

- Winner, INFORMS eBusiness Section Best Paper Award 2017
  (with Yan Huang and Puneet Manchanda)

- Second prize, POMS-HK Best Student Paper Competition 2017
  (with Yanzhe Lei and Amitabh Sinha)

- Arnold M. and Linda T. Jacob Faculty Development Award 2016
  (Ross Business School junior faculty research award)

- NSF Award 1561791 (June 1, 2016 - May 31, 2020): Joint Optimization of Pricing, Assortment, and Fulfillment in Omnichannel Retail
  (Principal Investigator, with Joline Uichanco and Amitabh Sinha)

- Wharton Customer Analytics Initiative 2014
  (with Yan Huang and Puneet Manchanda)

- Percy Lionel Davis Award 2005
  (UC Berkeley Department of Mathematics)

TEACHINGS

Stephen M. Ross School of Business (University of Michigan):
- Master level courses:
  MBAN 552. Probability and Statistics (for Master of Business Analytic)
  TO 557. Applied Business Statistics (for Master of Management)
  TO 566. Applied Linear Regression
  TO 572. Applied Business Forecasting
  TO 595. Applied Business Statistics (for Global MBAs)
  TO 621. Logistics
- Undergraduate level courses:
  TO 301. Business Statistics and Analytic
- Doctorate level courses:
  OMS 899. PhD Seminar in Revenue Management

Others:
- MBA course in Revenue Management
  Fall 2018: at Tepper School of Business, Carnegie Mellon University
- Short course in Dynamic Pricing and Revenue Management
  Summer 2017: at Soochow University
  Summer 2015, 2017: at Shanghai University of Finance and Economics (SHUFE)

SERVICES

Department Editor (DE):
- Production and Operations Management
  DE for Revenue Management and Market Analytics (2022-now)

Senior/Associate Editor (SE/AE):
- Operations Research (2020-now)
- Manufacturing and Service Operations Management (2021-now)
- Naval Research Logistics (2018-now)
- Management Science (2018-2024)
- Production and Operations Management (2019-2021)

Reviewer:
Management Science, Operations Research, Mathematics of Operations Research, Manufacturing and Service Operations Management, Stochastic Systems, Production and Operations Management, Naval Research Logistics, European Journal of Operations Research, Queueing Systems, Transactions on Modeling and Performance Evaluation of Computing Systems.

Others (external):

- INFORMS Revenue Management and Pricing Section DEI committee (2022-2023).
- Co-department Editor (with Yun Fong Lim) for Naval Research Logistics Special Issue on Online Retails; appeared in volume 68, issue 6, pg. 679-854, September 2021.
- MSOM Student Paper Competition judge (2017-now).
- MSOM SIG judge (2016-2019).
- INFORMS Revenue Management and Pricing Section Data Competition committee (2020).
- INFORMS Revenue Management and Pricing Section Student Paper Award committee (2019).
- INFORMS Revenue Management and Pricing Section Board Member (2018-2020).
- INFORMS Annual Meeting, Revenue Management cluster co-chair (2018).
- Session chairs at INFORMS Annual Meeting (2011-now).

Others (at Michigan):
- Ross representative for senate assembly (starting 2023)
- Senate assembly committee for fairness, equity and inclusion (CFEI, starting 2023)
- Ross pre-doctoral program task force (chair, 2023)
- First major review task force for a TO lecturer (chair, 2023)
- Faculty hiring committee for TO area (academic year 2022-2024)
- PhD admissions committee for TO area (academic year 2022-2023)
- Co-organizing (with Xiuli Cao and Cong Shi) a "Data-Driven Decision Analytic" event on December 9, 2022, co-sponsored by IOE, MIDAS, and Ross Business Tech.
- Ross faculty council member for one-year master programs (academic year 2022-2023).
- Organizing Hosmer Talks (2019-2020).
- PhD coordinator for TO area (Fall 2017).
- Advising Supply Chain Consulting projects (2018, 2022-now).
- Advising Tauber projects (2012-2016, 2021-now).
- Advising MAP projects (2012).

STUDENTS

Current PhD students:
1. Preet Baxi (Physics and Scientific Computing)
2. Ali Ilhan Haliloglu (Ross), co-advised with Ran Zhuo
3. Qiao Zhou (Ross), co-advised with Izak Duenyas
4. Fenghua Yang (Ross), co-advised with Dae Woong Ham

Past students:
1. Zhuodong Tang (Ross postdoc, 2022-2024), co-advised with Izak Duenyas
   Starting 2025: Assistant Professor at Shanghai Jiao Tong University, China

2. Jiaxin Liang (Ross PhD, 2017-2024), co-advised with Joline Uichanco
   Starting 2024: Assistant Professor at McGill University, Montreal

3. Zhiyuan Sun (Ross undergraduate researcher, 2022-2023)
   Starting 2023: PhD student at UCLA Anderson

4. Sajjad Najafi (Ross research fellow, 2017-2019), co-advised with Izak Duenyas
   Starting 2020: Assistant Professor at HEC, Paris

5. Lai Wei (Ross PhD, 2013-2019), co-advised with Roman Kapuscinski
   Fall 2019-now: Assistant Professor at Carroll School of Management, Boston College

6. Yanzhe Lei (Ross PhD, 2012-2018), co-advised with Amitabh Sinha
   Fall 2018-now: Assistant Professor at Smith School of Business, Queen's University

7. Qi Chen (Ross PhD, 2011-2017), co-advised with Izak Duenyas
   Fall 2017: Assistant Professor at Naveen Jindal School of Management, UT Dallas
   Fall 2018-now: Assistant Professor at London School of Business