

N. Bora Keskin

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Education

Stanford University

Ph.D., Graduate School of Business, Jun. 2012

- Academic Area: Operations, Information & Technology
- Dissertation Title: “Dynamic Pricing with Demand Model Uncertainty”
- GPA: 6.00/6

Boğaziçi University

B.Sc., Mathematics, Jun. 2007

B.Sc., Industrial Engineering, Jun. 2006

- Overall GPA: 4.00/4

Employment

Duke University, Fuqua School of Business

Associate Professor, 2020–present

Assistant Professor, 2015–2020

University of Chicago, Booth School of Business

Assistant Professor, 2012–2015

McKinsey & Company

Business Analyst, 2006–2007

Selected Honors and Awards

Winner, MSOM Young Scholar Prize, 2024

Winner, Lanchester Prize, 2019

Winner, Triangle Impact Challenge, 2021

Markov Lecture Discussant, INFORMS Applied Probability Society, 2023

Winner, Best Paper Award, Digital Supply Chain and Supplier Diversity Conference, 2022

Winner, INFORMS Service Science Best Paper Competition, 2022

Winner, INFORMS Data Mining Best Paper Competition, 2020

Honorable Mention, INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, 2018

Distinguished Service Award

Management Science, 2019

Meritorious Service Award

Management Science, 2016, 2017, 2018, 2020

Manufacturing & Service Operations Management (M&SOM), 2019, 2020

Operations Research, 2012

STAR Visitor, Netherlands Organization for Scientific Research, 2015

Publications

1. Bayesian dynamic pricing policies: Learning and earning under a binary prior distribution, with J.M. Harrison & A. Zeevi (2012), *Management Science*, 58(3), 570-586.
2. Dynamic pricing with an unknown demand model: Asymptotically optimal semi-myopic policies, with A. Zeevi (2014), *Operations Research*, 62(5), 1142-1167.
3. Chasing demand: Learning and earning in a changing environment, with A. Zeevi (2017), *Mathematics of Operations Research*, 42(2), 277-307.
 - Lead article.
 - Winner, **Lanchester Prize**, 2019.

4. On incomplete learning and certainty-equivalence control, with A. Zeevi (2018), *Operations Research*, 66(4), 1136-1167.
5. Dynamic selling mechanisms for product differentiation and learning, with J.R. Birge (2019), *Operations Research*, 67(4), 1069-1089.
6. Discontinuous demand functions: Estimation and pricing, with A.V. den Boer (2020), *Management Science*, 66(10), 4516-4534.
7. Personalized dynamic pricing with machine learning: High-dimensional features and heterogeneous elasticity, with G.-Y. Ban (2021), *Management Science*, 67(9), 5549-5568.
 - Honorable mention, INFORMS Junior Faculty Interest Group (JFIG) Paper Competition, 2018.
 - Finalist, INFORMS Data Mining Best Paper Competition, 2019.
8. Competition between two-sided platforms under demand and supply congestion effects, with F. Bernstein & G. DeCroix (2021), *M&SOM*, 23(5), 1043-1061.
9. Dynamic learning and market making in spread betting markets with informed bettors, with J.R. Birge, Y. Feng, & A. Schultz (2021), *Operations Research*, 69(6), 1746-1766.
 - Preliminary version in proceedings of the 2019 ACM Conference on Economics and Computation (EC '19).
 - Featured in *Chicago Booth Review*.
10. Data-driven dynamic pricing and ordering with perishable inventory in a changing environment, with Y. Li & J. Song (2022), *Management Science*, 68(3), 1938-1958.
11. Impact of information asymmetry and limited production capacity on business interruption insurance, with Y.-M. Kao & K. Shang (2022), *Management Science*, 68(4), 2824-2841.
12. Dynamic pricing with demand learning and reference effects, with A.V. den Boer (2022), *Management Science*, 68(10), 7112-7130.
13. Selling quality-differentiated products in a Markovian market with unknown transition probabilities, with M. Li (2024), *Operations Research*, 72(3), 885-902.
14. To interfere or not to interfere: Information revelation and price-setting incentives in multiagent learning environments, with J.R. Birge, H. Chen, & A. Ward (2024), *Operations Research*, 72(6), 2391-2412.
 - Featured in *Chicago Booth Review*, *China Business Knowledge*, and *UNSW BusinessThink*.
15. Data-driven clustering and feature-based retail electricity pricing with smart meters, with Y. Li & N. Sunar, forthcoming in *Operations Research*.
 - Winner, INFORMS Data Mining Best Paper Competition, 2020.
 - Winner, INFORMS Service Science Best Paper Competition, 2022.
 - Invited to the 2022 Conference on AI, ML, & Business Analytics.
16. The blockchain newsvendor: Value of freshness transparency and smart contracts, with C. Li & J. Song, forthcoming in *Management Science*.
 - Winner, Best Paper Award, Digital Supply Chain and Supplier Diversity Conference, 2022.
 - Winner, Fan Favorite Award, YinzOR Conference, 2022.
 - Second place, POMS-HK Best Student Paper Competition, 2023.
 - Honorable mention, *OR/MS Tomorrow* Mini Poster Competition, 2022.
 - Honorable mention, INFORMS Minority Issues Forum Poster Competition, 2023.
 - Featured in *Duke Fuqua Insights*.
17. Markdown policies for demand learning with forward-looking customers, with J.R. Birge & H. Chen, forthcoming in *Operations Research*.
 - Featured in *Chicago Booth Review*.

Papers Under Review or Revision

18. The nonstationary newsvendor: Data-driven nonparametric learning, with X. Min & J. Song.
19. Bayesian dynamic pricing and subscription period selection with unknown customer utility, with Y.-M. Kao & K. Shang.
20. A model-free geotemporal clustering approach for pandemic projection and medical resource planning: Insights from COVID-19, with X. Min & J. Song.
21. Optimal dynamic pricing with demand model uncertainty: A squared-coefficient-of-variation rule for learning and earning.
22. Dynamic learning for joint pricing, advertising and inventory management, with H. Gurkan & R. Parker.
23. Data-driven population tracking in large service systems, with F. Bernstein, A. Mersereau, M. Wood, & S. Ziya.
– Featured in *Duke Fuqua Insights*.
24. Feature-based scheduling and dynamic learning with a large backlog, with C. Zhang.
25. Green ride-hailing: Impact on environment and consumers, with Y. Li & N. Sunar.
26. Order stacking in on-demand delivery platforms, with J. Scott & R. Swinney.
27. Innovator's edge in supply chain transparency and food waste reduction, with C. Li & J. Song.
28. Show-up profiles for scheduled services: Estimation and applications, with F. Bernstein, A. Mersereau, M. Wood, & S. Ziya.

Works in Progress

29. Deep learning for visual advertising on digital platforms, with Y. Li & J. Song.
30. Learning and earning for congestion-prone service systems, with P. Afèche.

Invited Research Talks (in alphabetical order)

Amazon, 2019

Bilkent University, Department of Industrial Engineering, 2014

Boğaziçi University, Department of Industrial Engineering, 2019

Boğaziçi University, Department of Management, 2020

Boston College, Carroll School of Management, 2023

Columbia University, Graduate School of Business, 2012

Cornell University, Johnson Graduate School of Management, 2019

Cornell University, School of Operations Research and Information Engineering, 2012

Cornell University, School of Operations Research and Information Engineering, 2014

Deloitte, 2022

Duke University, Fuqua School of Business, 2012

Duke University, Fuqua School of Business, 2015

Duke University, Fuqua School of Business, 2019

Georgetown University, McDonough School of Business, 2021

Johns Hopkins University, Carey Business School, 2019

Koç University, Graduate School of Business, 2022

London Business School, 2016

London Business School, 2022

McGill University, Bensadoun School of Retail Management, 2021

McGill University, Desautels Faculty of Management, 2014

METU, Department of Industrial Engineering, 2021

MIT, Data Science Lab, 2020

MIT, Data Science Lab, 2022

MIT, Sloan School of Management, 2012
MIT, Sloan School of Management, 2014
North Carolina State University, Poole College of Management, 2024
Northwestern University, Kellogg Graduate School of Management, 2011
Northwestern University, Kellogg Graduate School of Management, 2012
NYU, Stern School of Business, 2012
NYU, Stern School of Business, 2023
Purdue University, Krannert School of Management, 2022
Queen's University, Smith School of Business, 2017
Queen's University, Smith School of Business, 2022
Stanford University, Graduate School of Business, 2011
Stanford University, Graduate School of Business, 2022
Stanford University, Graduate School of Business, 2025
Syracuse University, Whitman School of Management, 2021
University of British Columbia, Sauder School of Business, 2022
University of California at Riverside, School of Business, 2023
University of Chicago, Booth School of Business, 2012
University of Chicago, Booth School of Business, 2015
University of Chicago, Harris School of Public Policy, 2015
University of Illinois at Chicago, College of Business Administration, 2018
University of Illinois at Urbana-Champaign, Gies College of Business, 2014
UNC-Chapel Hill, Kenan-Flagler Business School, 2013
UNC-Chapel Hill, Department of Statistics and Operations Research, 2014
University of Southern California, Marshall School of Business, 2016
University of Texas at Austin, McCombs School of Business, 2020
University of Texas at Dallas, Naveen Jindal School of Management, 2021
University of Toronto, Rotman School of Management, 2015
University of Twente, Department of Stochastic Operations Research, 2015
University of Utah, David Eccles School of Business, 2024
VU Amsterdam, Stochastics Department, 2015
Washington University in St. Louis, Olin Business School, 2019

Invited Research Conferences (in alphabetical order)

Conference on AI, ML, & Business Analytics: 2022
Digital Supply Chain & Supplier Diversity Conference: 2022
EURO-INFORMS Joint International Meeting: 2013
INFORMS Annual Meeting: 2009–2024
INFORMS Applied Probability Society Conference: 2013, 2015, 2017
INFORMS Data Mining & Decision Analytics Workshop: 2020, 2021, 2024
INFORMS Data Science Workshop: 2020, 2021, 2024
INFORMS Revenue Management & Pricing Conference: 2010–2022
MSOM Conference: 2013, 2015, 2017, 2021, 2024
MSOM Interface of Finance, Operations, & Risk Management (iFORM) SIG Workshop: 2018, 2019
MSOM Service Management SIG Workshop: 2011, 2024
MSOM Supply Chain Management SIG Workshop: 2023
Marketplace Innovation Workshop: 2017, 2019, 2021
POMS Annual Conference: 2016, 2019
Supply Chain Finance & Risk Management Workshop: 2022
Workshop in Information & Learning in Decisions and Operations: 2021
YA/EM Congress on Operations Research & Industrial Engineering: 2021

Teaching Experience

Duke University, Fuqua School of Business

Value Chain Innovation in Business Processes (Daytime MBA and Executive MBA), 2019–2024

– Course Evaluations: 6.41-6.77/7 (across sections and years)

Supply Chain Management (Daytime MBA and Executive MBA), 2015–2019

– Course Evaluations: 6.03-6.75/7 (across sections and years)

Dynamic Pricing & Revenue Management (Ph.D.), 2016, 2018, 2020, 2022

Emerging Topics in Operations Management (Ph.D.), 2017

University of Chicago, Booth School of Business

Operations Management: Business Process Fundamentals (MBA), 2013–2015

– Course Evaluations: 4.63-4.76/5 (across sections and years)

Dynamic Pricing & Revenue Management (Ph.D.), 2014

Stanford University, Graduate School of Business

Fundamentals of Operations, Information, and Technology (Ph.D.), 2009–2010

Professional Activities and Service

Associate Editor

Management Science, 2019–present

Operations Research, 2021–present

Management Science, Special Issue on Data-Driven Prescriptive Analytics

Senior Editor

Production and Operations Management, 2024–present

INFORMS Revenue Management & Pricing Section

Award Committee Chair, Jeff McGill Student Paper Award, 2022

Board Member, 2014–2016

INFORMS Revenue Management & Pricing Conference

– Spotlight Session Discussant, 2022

– Program Committee Member, 2017, 2019, 2022

INFORMS Applied Probability Society

Markov Lecture Discussant, 2023

INFORMS Applied Probability Society Conference, Session Chair, 2013, 2015, 2017

INFORMS MSOM Society

Healthcare Management SIG Discussant, 2024

Service Management SIG Discussant, 2024

INFORMS Annual Meeting

Cluster Chair

– MSOM Service Management cluster, 2018

– Revenue Management & Pricing cluster, 2015

Session Chair

– Revenue Management & Pricing cluster, 2012–2024

– Applied Probability Society cluster, 2016, 2017, 2020

– Data Mining cluster, 2020-2022

– MSOM cluster, 2016

– MSOM Service Management cluster, 2019

– MSOM iFORM cluster, 2018, 2020, 2021, 2022

– Decision Analysis Society cluster, 2022

POMS Annual Conference

Track Chair, Revenue Management & Pricing track, 2025

YA/EM Congress on Operations Research & Industrial Engineering
Plenary Speaker, 2021

Judge

George Nicholson Student Paper Competition, 2021, 2022
INFORMS Applied Probability Society Best Student Paper Competition, 2021, 2022
MSOM Student Paper Competition, 2015–2024
POMS College of Supply Chain Management Best Student Paper Competition, 2024, 2025

Reviewer

Management Science, Operations Research, M&SOM, Mathematics of Operations Research, Marketing Science, Production and Operations Management, Decision Analysis, Games and Economic Behavior, Journal of Applied Probability, European Journal of Operational Research, Operations Research Letters, Stochastic Systems, Naval Research Logistics, Annals of Operations Research, IISE Transactions
MSOM Supply Chain SIG Workshop, 2012, 2015, 2016, 2017
MSOM Service SIG Workshop, 2016–2019

Duke University, Fuqua School of Business

Ph.D. Program Coordinator, Operations Management, 2023–present
Curriculum Committee Member, 2023–present
Ph.D. Program Committee Member, Operations Management, 2016–2023
Seminar Organizer, Operations Management, 2016–2018
Website Representative, Operations Management, 2015–2019

University of Chicago, Booth School of Business

Workshop Organizer, Operations Management, 2012–2013

Student Supervision and Collaboration

Duke University, Fuqua School of Business

Yuan-Mao Kao (initial placement: Baruch College, City University of New York)
Chenghuai Li (initial placement: University of Alberta, Alberta School of Business)
Yuxing Li (initial placement: Johns Hopkins Carey Business School)

University of Chicago, Booth School of Business

Hongfan Chen (initial placement: Chinese University of Hong Kong Business School)
Yifan Feng (initial placement: National University of Singapore Business School)
Adam Schultz (initial placement: Wealthfront Inc.)

Other Professional Experience

Nomis Solutions, R&D Intern, 2008
Boğaziçi University Flexible Manufacturing Laboratory, Research Assistant, 2003–2006
Unilever, Production Planning Intern, 2005
Kraft Foods, Supply Chain Intern, 2004

Other Honors and Awards

University of Chicago, Booth School of Business, Neubauer Family Faculty Fellowship, 2013–2014
Stanford University, Graduate School of Business, Donald E. Petersen Fellowship, 2008–2010
Boğaziçi University, Graduated summa cum laude, 2007
Ranked first among approximately 600 engineering and math graduates, 2007
Ranked first among all double-major graduates, 2007
President of the Student Representative Council, 2005–2006
Alper Atalay Fellowship (based on academic excellence), 2003–2007
Istanbul Atatürk High School of Science, Graduated summa cum laude, 2001
National Physics Olympiad Marmara Region First Rank, 1999
National Mathematics Olympiad Silver Medal, 1998