

Elena Belavina

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Academic Employment

Cornell University, SC Johnson College of Business and The Nolan School

Associate Professor, OTIM Department, 2018–

Faculty Fellow, The Atkinson Center for a Sustainable Future, 2019–

Faculty Fellow, Cornell Institute for Food Systems, 2021–

Indefinite Tenure, 2021–

Family leave, 2022.

The University of Chicago, Booth School of Business

Assistant Professor, Operations Management Department, 2012-2018

On family leave, 2015-16

Neubauer Family Faculty Fellow, 2013-2014

Jane and Basil Vasiliou Scholar, 2015-17

Visiting Scholar, NYU Stern, 2017-2018

Education

Ph.D. in Management with distinction (Operations Management), INSEAD, 2012

M. Sc. and B. Sc. Applied Mathematics and Physics, Moscow Institute of Physics and Technology (State University), GPA: 5.0/5.0, 2007

Research Interests

Sustainability: Food Waste, Bike-Share Systems.

Global Supply Chains, Online Retail, logistics, e-Commerce, Grocery and Food Delivery, Last-Mile Delivery.

Business experiments, product analytics, Causal Inference for business.

Supply Chain Management, Perishable Inventory Management, Repeated Games, Econometric Analysis

Published Papers

- [1] Belavina E. "Grocery Store Density and Food Waste," *M&SOM*, 23:1, 2021.
Finalist, MS&OM Best Paper Award, 2024
Invited presentation at Utah Winter Operations Conference, 2020, Accepted for ARCS 2018, MSOM Sustainability SIG 2017, Early-career Sustainable Operations Workshop, 2017.
- [2] Belavina E., S. Marinesi and G. Tsoukalas, "Rethinking Crowdfunding Platform Design: Mechanisms to Deter Misconduct and Improve Efficiency," *Management Science*, 66:11, 2020.
Finalist, 2021 iFORM Best Paper Award.
Invited presentation at the MSOM iFORM SIG, 2019.
- [3] Zheng F., P. He, E. Belavina and K. Girotra, "Customer Preference and Station Network in the London Bike Share System," *Management Science*, 67:3, 2021.
Finalist, 2018 IBM Service Science Best Student Paper Award; Invited talks at Marketplaces Conference 2017, Wharton Empirical Research in OM Workshop 2017, MSOM Service SIG 2018.
- [4] Kabra A., E. Belavina and K. Girotra, "Bike Share Systems: Accessibility and Availability," *Management Science*, 66:9, 2019.
Finalist, Best OM Paper in Management Science Award, 2021, 2023
Featured Article of the Issue; Results Covered in Management Science Review.
Winner, 2015 MSOM Student Paper Competition, Runner-up POMS College of Sustainability Best Student Paper Award, 3rd Prize in Service Science Student Paper Competition (A. Kabra)
Selected Sustainable Operations SIG Conference, 2015.
- [5] Momot R., E. Belavina and K. Girotra, "The Use and Value of Social Network Information in Selective Selling of Exclusive Products," *Management Science*, 66:6, 2020.
Finalist, 2016 IBM Service Science Best Student Paper Award
- [6] Belavina E., K. Girotra and A. Kabra, "Online Grocery Retail: Revenue Models and Environmental Impact" *Management Science*, 63:6, 2017.
- [7] Avci B., Loutfi Z., Mihm J., Belavina E., and Keck S., "Comparison as Incentive: Newsvendor Decisions in a Social Context," *Production and Operations Management*, 23:2, 2014.
- [8] Belavina E. and K. Girotra, "The Relational Advantages of Intermediation," *Management Science*, 58:9, 2012.
3rd Prize in JFIG Best Paper Competition, 2011; Selected MSOM Supply-Chain SIG 2011

Book Chapters

- [9] A. Kabra, Belavina E., K. Girotra "Bike-Share Systems" in Environmentally Responsible Supply Chains, Atalay Atasu, editor, Chapter 8, Springer, 2016.

Industry Reports & Publications

- [10] Belavina E. and Kabra A. "Leveraging Bike-Share Systems to Improve Guest Experiences and Attract Tourists," *Cornell Hospitality Report*, 19(6), 1-12, 2019.
- [11] Belavina E. "Crowdfunding for Hospitality Ventures," *Cornell Hospitality Research Brief*, 20(1), 2020.
- [12] Allu R. and Belavina E. "Contractual Terms for Reducing Food Waste. Possibilities and Potential within Fresh Grocery Supply Chains," *ECR Retail Loss Group Report*, 2020.

Revisions and Papers in Review

- [1] Nu Y., E. Belavina, K. Girotra, "Using Artificial Intelligence to Reduce Food Waste", Major Revision at *Management Science*, 2024.
Climate Solutions Fund's Award Recipient (\$102,312).
Recipient of the Business of Food Small Grants Program: \$10,000, 2022.
- [2] Belavina E., K. Girotra, K. Moon, and J. Zhang, "Observed Choices and Unobserved Talents in Online Labor Markets," resubmitted after Major Revision, *Operations Research*, 2024.
Finalist MSOM, Revenue Management & Pricing, and IBM Service Sci. Best Student Paper Competitions 2019.
Invited talks at Marketplaces Conference 2018, 2019; Wharton Empirical Research in OM Workshop 2018, MSOM SIG 2018
- [3] Astashkina E., E. Belavina and S. Marinesi, "The Environmental Impact of the Advent of Online Grocery Retailing," Reject and Resubmit, *Management Science*.
Finalist IBM Best Student Paper Competition, 2018.
- [4] Belavina E. and X. Yan "Variability Propagation in Perishable Product Supply Chains," 2024, Under revision for submission to *Management Science*.
- [5] Belavina E., "Supply Networks for Relational Sourcing," Under revision for submission to *Operations Research*, 2023.

Working Papers

- [6] Yuan L., E. Belavina, "Privacy-preserving data-driven inventory management"
- [7] Belavina E. and X. Yan "Data-driven Decisions in Supply Chains: Contracts, Algorithms and Efficiency"
- [8] Belavina E., "The Benefits of Decentralized Decision Making," 2014. [Dormant]

Ongoing Projects

- [9] Belavina E. and E. Astashkina, "Interventions to Reduce Food Waste in Dining Halls and Quick Service Restaurants: Learnings from Field Experiments."
Recipient of the Business of Food Small Grants Program: \$10,000, 2019.
- [10] Roy D., E. Belavina, N. Kallus and K. Girotra, "Reducing Food Waste in Akshaya Patra's Food for Education Program."

- [11] Belavina E. "The Impact of the Grocery Retail Network on Consumer Choices: Consumption Patterns and Food Waste."
- [12] Hua Z., E. Belavina "Fairness in Dynamic Matching Markets"
- [13] Nu Y., E. Belavina, K. Girotra, M. Qi "AI Copilot for data-driven food inventory management"

Industry Reports in Preparation

- [14] Belavina E. "Impact of Technology on Food Waste in Commercial Kitchens," in preparation for *Cornell Hospitality Reports*.
- [15] Belavina E. "Reducing Food Waste in Service Sector," in preparation for *Cornell Hospitality Reports*.
- [16] Belavina E. "Reducing Food Waste at Dining Halls," in preparation for *Cornell Hospitality Reports*.

Teaching Materials Developed

- [17] Flipped Quantitative Analysis Video Course. 25 Video Lectures (~100 video segments) covering descriptive, predictive, and prescriptive data analytics and applications in the travel, hotel, food service, and healthcare industries, 2019.
- [18] New 27 Session Elective course on "Operational Analysis and New Business Models," with a partially flipped classroom experience, 2020.
- [19] PhD course "Operations of Digital Business Models and Marketplaces", 2021.
- [20] PhD course "Foundations of Operations Management II", 2021-2022.
- [21] Online executive education "Operations Management" course, 2021-2022.
- [22] Executive education "Operations Management" course, 2022-2023.
- [23] 4 day "Operations Management" bootcamp course, 2022-2023.
- [24] 1 day Hospitality Industry Immersion module, 2022-2023.
- [25] "Decision Models" with a partially flipped classroom experience, 2023

Cases

- [26] Belavina E. "Zero Waste Restaurants," in preparation.

Student Advising

Ph.D.: Xiaoyue Yan, 2024 (Committee Chair)

Astashkina Ekaterina, 2019 (Committee Chair, Assistant Prof., University of Michigan, Ross)

Ashish Kabra, 2018 (Committee Co-Chair, Assistant Prof., University of Maryland)
Ruslan Momot, 2018 (Committee member, University of Michigan, Ross)
Jing Wu, 2016 (Committee member)

Industry Engagement

Winnow Solutions (AI based tools to help chefs monitor and reduce food waste), 2016-
ECR shrink group (a consortium of food retailers incl. Tesco, Walmart, etc.), 2019-
World Wildlife Fund (NGO: wilderness preservation and reduction of human impact on env.), 2021-
Las Vegas Sands (Casino/Resort Developer and Operator), 2019-
Akshaya Patra's food for education program (NGO), 2018-
Upwork (World's largest labor marketplace), 2016-
Transport for London (Public agency for transportation in the city of London), 2015-2019
Velib' (Bike-share provider in Paris), 2011-2016

In Early Stage Discussions:

Terra Vi (sustainability focused hotels), 2020-
Amazon (online grocery retailing), 2020-
Salad Stop (Quick Service Restaurant Chain), 2019-
Everytable (grab-and-go storefronts for fresh, healthy meals), 2019-
HostMaker (Management services for Airbnb hosts), 2019-
Oyo Hotels (Marketplace aggregator for independent budget hotels), 2019-
Cornell Dining (28 eateries on Cornell campus), 2019-
Pepr (A software company that helps restaurants improve profits using AI), 2017-

Awards and Honors

Teaching

Second Year Core Teaching Award, 2021
Ted Teng Impactful Teaching Award, 2020

Research

Finalist, MS&OM Best Paper Award, 2024
Finalist, Best OM Paper in Management Science Award, 2023
Finalist, Best OM Paper in Management Science Award, 2021

Finalist, 2021 iFORM Best Paper Award

Advisor and Co-author for Recipients of Student Paper Awards:

MSOM Student Paper Competition (Ashish Kabra: Winner 2015, Jiding Zhang: Finalist 2019)

POMS College of Sustainability Best Student Paper Award (Ashish Kabra: Runner-up 2015)

IBM Service Science Best Student Paper Award (Ashish Kabra: 3rd Prize 2016, Ruslan Momot: Finalist 2016, Astashkina Ekaterina: Finalist 2018, Pu He: Finalist 2019)

Revenue Management & Pricing Student Paper Competition (Jiding Zhang: Finalist 2019)

Junior Faculty Interest Group, Best Paper Award, 3rd Place, 2011

Service

Management Science Meritorious Service Award 2014, 2019

Fellowships and Scholarships

Faculty Fellow, Atkinson Center for Sustainable Future, 2019

Nominated for the Andrew Carnegie Fellowship by SC Johnson College of Business, 2018

Jane and Basil Vasiliou Scholar, Chicago Booth, 2015, 2016, 2017

Neubauer Family Faculty Fellow, Chicago Booth, 2013, 2014

Grants

2024 Climate Solutions Fund's Award Recipient (\$102,312).

Cornell Business of Food Grants Program Recipient (\$10,000 x2)

INSEAD Research Grant on Bike-Share Systems (€ 15,000)

INSEAD Research Grant on Global Sourcing (€4,000)

Student

The George and Marion Plossl Research Fellowship (Runner-up), 2010

Passed both parts of INSEAD Ph.D. qualification examination with distinction, 2008, 2009

NIX Scholarship 2002, 2003

MIPT Scholarship for Outstanding Academic Achievements, 2001-2007

Teaching

Cornell University:

Decision Models (MBA Elective)

Evaluations: 2023: 5.0

"Overall Instructor Rating (Q9)", 1-5 Scale. Full evaluations available on request.

Operations Management (M2 Cornell-Peking U)

Evaluations: 2024: 5.0
2023: 4.48

“Overall Instructor Rating (Q17)”, 1-5 Scale. Full evaluations available on request.

Operations Management (Executive MMH)

Evaluations: 2023: 4.40

“Overall Instructor Rating (Q17)”, 1-5 Scale. Full evaluations available on request.

Managing Operations (Executive MBA in Healthcare)

Evaluations: 2023: 4.72
2022: 4.72

“Overall Instructor Rating (Q9)”, 1-5 Scale. Full evaluations available on request.

Foundations of Operations Management II (PhD)

Evaluations: 2022: no evaluations were collected this year

“Overall Instructor Rating (Q17)”, 1-5 Scale. Full evaluations available on request.

Operations of Digital Business Models and Marketplaces (PhD)

Evaluations: 2021: 4.5

“Overall Instructor Rating (Q17)”, 1-5 Scale. Full evaluations available on request.

Operational Analysis and New Business Models

Evaluations: 2021: 5.0, 5.0
2020: 5.0, 4.62

“Overall Instructor Rating (Q17)”, 1-5 Scale. Full evaluations available on request.

Quantitative Analysis

Evaluations: 2021: 4.8, 4.68
2020: 5.0, 4.77
2019: 4.93, 4.40

“Overall Instructor Rating (Q17)”, 1-5 Scale. Full evaluations available on request.

Independent Study Projects: A. Goyal on Crowdfunding, 2019.

University of Chicago:

Operations Management: Business Process Fundamentals

Evaluations: 2018: 4.52, 4.5
2017: 4.88, 4.74, 4.60
2016: 4.88, 4.73, 4.68
2015: 4.84, 4.76, 4.64
2014: 4.69, 4.61, 4.46
2013: 4.60, 4.07

“Overall effectiveness in conveying information in an interesting way,” 1-5 Scale.
Full evaluations available on request.

Service to the School/University

Cornell University

Faculty Awards Committee, 2021-
Graduate Committee, Aug. 2019-
MMH Admissions Committee, 2019-
OTIM Recruitment Committee, 2020-2021, 2021-2022, 2022-2023, 2023-2024
Reader of Graduate Student Applications (Ph.D. and MS), 2019-2020
Part of OTIM Ph.D. curriculum development team, 2019-2020
Member of the Smith Family Business Initiative Research Pioneer Fund Proposal Committee, 2019
Undergraduate and Graduate Student Advising and Recommendation Letter Writer, 2018-
Faculty advisor to the Hospitality Financial & Technology Professionals (HFTP) Club, 2020-

University of Chicago

Ph.D. Student and Faculty Recruitment, 2012-2018
Teaching Mentor for Newly Hired Faculty Members, 2016
Operations Seminar Series Coordinator, 2012-14

Service to the Academic Community

Associate Editor (guest), *Management Science*, 2022-
Associate Editor, *M&SOM*, 2020-
Associate Editor, *Service Science*, 2019-
Ad-hoc Referee for Academic Journals:
Management Science, Manufacturing and Service Operations Management, Operations Research, Journal of Political Economy, Transportation Science, Production and Operations Management, Decision Sciences, CQ, 2011-
Referee for *MSOM SIG Conferences*:
Service: 2013, 2014, 2017, 2018, 2019, 2020

Supply Chain: 2013, 2014, 2017, 2018, 2020, 2023

Sustainable Operations: 2013, 2014, 2017

iFORM: 2018

Judge for Best Student/Working Paper Competitions:

INFORMS Public Sector Operations Research, 2022

INFORMS the Technology, Innovation Management, and Entrepreneurship, 2022, 2023

POMS Product Innovation and Technology Management (PITM), 2020

POMS College of Supply Chain Management, 2016, 2017, 2018, 2020

MSOM student paper competition, 2016-2022

Cluster Chair: MSOM Sustainable Operations SIG Cluster at INFORMS, 2017

Session Chair: Multiple sessions at INFORMS Annual Meeting, 2012-2020

Invited as an expert reviewer for the Social Sciences and Humanities Research Council of Canada, the Foundation for Food and Agriculture Research, Network for the Digital Economy and Environment (nDEE), an initiative of the Environmental Law Institute, the Yale School of the Environment, and the UC Berkeley School of Law, 2019-

Selected Invited Talks

- 2022: College Leadership Council, Cornell Johnson College of Business, Cornell Tech
Center for Hospitality Research Board Meeting, New York City
- 2021: Using Technology to Reinvent Hospitality Business Models, CHR/PIHE
Business at a New Threshold: Harnessing Finance and Data for Sustainable Prosperity, New York City
- 2020: Sustainability Round Table (Panelist), Virtual
Smart-City Operations and Analytics Conference, Virtual
Cornell Business Analytics, Virtual
Sell More, Waste Less Series, Conference by ECR Shrink Group, Virtual
Institute of Food Systems Industry Partnership Program Symposium, Virtual
Business, Environment and Sustainability Panel, Cornell University
Winter Operations Management Conference, University of Utah
- 2019: Sustainability Round Table, Cornell University
Networks, Matching and Platforms Conference
Cornell-R4 Applied AI Initiative Data Science Seminar Series
Symposium for Sourcing and Selling Healthy Food for a Sustainable Planet
Atkinson Center's Food Security Working Group Ideas to Action (I2A) Forum

- 2018: Center for Sustainable Global Enterprise, Cornell
Tepper School of Business, Carnegie Mellon University
Wharton School, University of Pennsylvania
The MIT Sloan School of Business
Stern School of Business, New York University
INSEAD, Fontainebleau, France
- 2017: London Business School, University of London
Darden School of Business, University of Virginia
Jindal School of Management, University of Texas at Dallas
SC Johnson College of Business, Cornell University
The Kellogg School of Management, Northwestern University
- 2016: Ecole des Hautes Etudes Commerciales (HEC), Paris
ESSEC Business School, Paris
IE Business School, Madrid
IESE Business School, Barcelona
- 2014: The Tuck School of Business at Dartmouth
- 2012: The Leonard N. Stern School of Business, New York University
The Kellogg School of Management, Northwestern University
Columbia Business School, Columbia University
The University of Chicago Booth School of Business
The Walter A. Haas School of Business, University of California at Berkeley
The Stephen M. Ross School of Business, University of Michigan
London Business School, University of London
Ecole des Hautes Etudes Commerciales (HEC), Paris
The Scheller College of Business, Georgia Institute of Technology
The Curtis L. Carlson School of Management, University of Minnesota
The Wallace E. Carroll School of Management, Boston College
Owen Graduate School of Business, Vanderbilt University
NUS Business School, National University of Singapore
Lee Kong Chian School of Business, Singapore Management University

Selected Media

Invited Articles and Features

- “The Time and Space for Disruption: Using Technology to Reinvent Hospitality Business Models”, CHR/PIHE, Aug 4, 2021
- “Designing bike-share systems,” Management Science Review, Feb 10, 2021.
- “Better access to groceries could reduce food waste, emissions,” Cornell Chronicle, Jan 31, 2020
- “If it takes a hike, riders won’t go for bike sharing,” Cornell Chronicle, Jan 29, 2020
- “A fresh approach to helping the planet: Elena Belavina takes on food waste,” Hotelie Magazine, Sep 18, 2019
- “Elena Belavina: Creating strategies for food waste reduction,” Ezra Magazine, Oct 22, 2019
- “How to keep crowdfunding entrepreneurs honest,” Chicago Booth Review, Sep 12, 2018
- “How London could improve its bike-share system,” Chicago Booth Review, Apr 12, 2018
- “How to grow demand for bike-sharing”, Chicago Booth Review, Mar 4, 2018
- “To reduce food waste, build more grocery stores,” Chicago Booth Review, Sep 12, 2017
- “Welcome to Social Media Shopping Mall,” INSEAD Knowledge, Aug 2, 2016
- “How Bike Sharing Could Become Mainstream,” INSEAD Knowledge, Jan 14, 2016
- “Comic by Boggy: Dear Paris,” Capital Ideas Magazine, June 2015.
- “How to increase bike-share ridership at no additional cost,” Chicago Booth Review, Feb 20, 2015
- “Creating a Socially Responsible Supply Chain,” INSEAD Knowledge, Feb 19, 2014
- “How to make money in online groceries (and help the environment),” Capital Ideas Magazine, 2014

Media Mentions, Food Distribution and Service (Food Waste)

Waste 360 (Aug 8 2024), World Atlas (Mar 31 2020), The Lempert Report (Mar 27 2020), Grocery Business (Mar 24 2020), TreeHugger (Mar 18 2020), Cornell Chronicle (Mar 13 2020), Cornell Chronicle (Mar 12 2020), Chief Investment Officer (Mar 5 2020), Tiede-lehti (Feb 2020), The Fox Magazine (Feb 22 2020), Coupons in the News (Feb 21 2020), The Sell By Report (Feb 19 2020), Food and Wine (Feb 14 2020), News Medical Life Sciences (Feb 13 2020), Modern Farmer (Feb 13, 2020), Lab Manager (Feb 13 2020), Food Manufacturing (Feb 12 2020), Perishable News (Feb 12 2020), Informs (Feb 12 2020)

New York Post (Feb 10 2020), Market Watch (Feb 10 2020), Food Navigator (Feb 6 2020), The Counter (Feb 6 2020), Gastronomía y Cia (Feb 6 2020), New Food Magazine (Feb 5 2020), Fast Company (Feb 5 2020), E&E News (Feb 5 2020), The National Tribute (Feb 1 2020), UMich (Jan 17 2020), Cornell Chronicle (Jan 31 2020), Ezra Magazine (Oct 22 2019), Hotelie Magazine (Sep 18 2019), Christian Science Monitor (Apr 26 2019), On Earth Magazine, Chicago Booth Review (Jan 17 2018), Chicago Booth Review (Sep 12 2017), INSEAD Knowledge (Jul 7 2017)

Media Mentions, Green Urban Commuting (Bike-share)

Capo Velo (Feb 18 2020), Cornell Chronicle (Feb 1 2020), CNN (Jan 31 2020), The Woman Post (Jan 14 2020), Eurasia Review (Jan 8 2020), Phys.org (Jan 6 2020), Informs (Jan 6 2020), Science Daily (Jan 31 2020), Mirage News (Jan 30 2020), Poets

and Quants (Dec 2 2019), BBC (May 15 2018), Chicago Booth Review (Apr 12 2018), Chicago Booth Review (Mar 4 2018), Chicago Booth Review (Feb 20 2015)

Media Mentions, Other

Fintech Zoom (Sep 24, 2020), Investor Place (Sep 22, 2020), Knowledge@Wharton (Aug 15, 2019), TechXplore (Aug 27, 2019); Chicago Booth Review (Sep 12, 2018), Daily FT (Aug 15, 2016)