

Maxime C. Cohen

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My core expertise lies at the intersection of **data science** and **operations management**. I have worked on retail, ride-sharing, airline, sustainability, cloud computing, online advertising, peer-to-peer lending, and social networks. I have collaborated with different companies including Google, Oracle Retail, IBM Research, Via (ride-sharing), Spotify, Edison Software, Cargo, Staples as well as several startups.

Employment History

- 2019 - **McGill University, BSRM and Desautels Faculty of Management**, Montreal, Canada
Associate Professor of Retail Management and Operations Management (with tenure)
Bensadoun Faculty Scholar
Co-director of the McGill Retail Innovation Lab
- 2016 - 2019 **New York University, Stern School of Business**, New York, NY
Assistant Professor of Technology, Operations, and Statistics
- 2015 - 2016 **Google AI, Research Team**, New York, NY
Postdoctoral Research Scientist
- 2017 - **Cherre, Deel (YC W19), ReBloc.io, Silverback.ai**, U.S. and Israel
Member of Advisory Board
- 2017 - **Sarona Ventures**, Tel Aviv, Israel
Advisor
- 2012 (Summer) **IBM T. J. Watson Research Center**, Yorktown Heights, NY
Research Intern - Business Analytics and Math Sciences
- 2012 & 2013 (Winter) **Oracle Corporation**, Burlington, MA
Research Scientist Intern - Retail Global Business Unit
- 2009 **Matrix ABC Capital Markets Ltd** (merged into GHF group), Israel
High-Frequency Trader
- 2007 - 2011 **Eurolaxo Ltd**, Israel
Co-Founder and Partner - Real Estate Investment Company

Education

- 2010 - 2015 **MIT**, Cambridge, MA
Ph.D. in Operations Research - Operations Management Track - GPA: 5/5
Thesis: Pricing for Retail, Social Networks, and Green Technologies
- 2006 - 2009 **Technion**, Haifa, Israel
M.S. in Electrical Engineering - GPA: 96/100
Thesis: Network Time Synchronization Using Decentralized Kalman Filtering
- 2002 - 2006 **Technion**, Haifa, Israel
B.S. in Aerospace Engineering, Summa Cum Laude - GPA: 93.5/100 (top 2%)
Courses in the EE Department - GPA: 98.1/100

Published and Accepted Papers

1. M. C. Cohen, R. Lobel, G. Perakis, "The Impact of Demand Uncertainty on Consumer Subsidies for Green Technology Adoption," **Management Science** 62(5):1235-1258, 2016
2. M. C. Cohen, Z. Leung, K. Panchamgam, G. Perakis, A. Smith, "The Impact of Linear Optimization on Promotion Planning," **Operations Research** 65(2):446-468, 2017
3. L. Baardman, M. C. Cohen, K. Panchamgam, G. Perakis, D. Segev, "Scheduling Promotion Vehicles to Boost Profits," **Management Science** 65(1):50-70, 2019
4. J. Chemama, M. C. Cohen, R. Lobel, G. Perakis, "Consumer Subsidies with a Strategic Supplier: Commitment vs. Flexibility," **Management Science** 65(2):681-713, 2019
5. M. C. Cohen, "Big Data and Service Operations," **Production and Operations Management** 27(9):1709-1723, 2018
6. M. C. Cohen, R. Lobel, G. Perakis, "Dynamic Pricing Through Data Sampling," **Production and Operations Management** 27(6):1074-1088, 2018
7. M. C. Cohen, P. Keller, V. Mirrokni, M. Zadimoghaddam, "Overcommitment in Cloud Services - Bin packing with Chance Constraints," **Management Science** 65(7):3255-3271, 2019 and accepted to the 2017 ACM SIGMETRICS Conference
8. M. C. Cohen, P. Harsha, "Designing Price Incentives in a Network with Social Interactions," Forthcoming in **Manufacturing & Service Operations Management**
9. M. C. Cohen, C. D. Guetta, K. Jiao, F. Provost, "Data-Driven Investment Strategies for Peer-to-Peer Lending," **Big Data** 6(3):191-213, 2018
10. M. C. Cohen, I. Lobel, R. Paes Leme, "Feature-Based Dynamic Pricing," Forthcoming in **Management Science** and accepted to the 2016 ACM Conference on Economics & Computation (EC)

Under Review and Working Papers

M. C. Cohen, M. D. Fiszer, B. J. Kim, "Frustration-Based Promotions: Field Experiments in Ride-Sharing," Major Revision in **Management Science**

M. C. Cohen, G. Perakis, R. Pindyck, "Pricing with Limited Knowledge of Demand," 2nd Major Revision in **M&SOM** and accepted to the 2016 ACM Conference on Economics & Computation (EC)

M. C. Cohen, J. J. Kalas, G. Perakis, "Optimizing Promotions for Multiple Items in Supermarkets," Major Revision in **Management Science**

M. C. Cohen, K. Jiao, "The Impact of IPOs on Peer-to-Peer Lending Platforms," Major Revision in **Management Science**

M. C. Cohen, C. Fernandez, A. Ghose, "Empirical Analysis of Referrals in Ride-Sharing," submitted

M. C. Cohen, R. Zhang, "Competition and Coopetition for Two-Sided Platforms," submitted

M. C. Cohen, A. Jacquillat, J. C. Serpa, "A Field Experiment on Airline Lead-in Fares," submitted

G. Allon, M. C. Cohen, W. P. Sinchaisri, "The Impact of Behavioral and Economic Drivers on Gig Economy Workers," submitted

M. C. Cohen, K. Jiao, R. Zhang, "Data Aggregation and Demand Prediction," submitted

M. C. Cohen, A. Desir, N. Korula, B. Sivan, "Best of Both Worlds Ad Contracts: Guaranteed Allocation and Price with Programmatic Efficiency," submitted

M. C. Cohen, G. Perakis, C. Thraves, "Consumer Surplus Under Demand Uncertainty," submitted

M. C. Cohen, S. Gupta, J. J. Kalas, G. Perakis, "An Efficient Algorithm for Dynamic Pricing Using a Graphical Representation," submitted

M. C. Cohen, G. Perakis, C. Thraves, "Competition and Externalities in Green Technology Adoption," working paper

M. C. Cohen, I. Lobel, R. Paes Leme, "Ellipsoids for Contextual Dynamic Pricing," SIGecom Exchanges, vol. 15, no. 2, pp. 40-44, 2017

M. C. Cohen, N. Shimkin, "Decentralized algorithms for sequential network time synchronization," Proc. NETCOOP 2010 – 4th Workshop on Network Control and Optimization, Dec. 2010, pp. 97-104

Book Chapter and Theses

M. C. Cohen, G. Perakis, "Promotion Optimization in Retail," Channel Strategies and Marketing Mix in a Connected World, (Eds.) Saibal Ray and Shuya Yin, Springer, Forthcoming

M. C. Cohen, "Pricing for Retail, Social Networks and Green Technologies," Ph.D. Thesis, Massachusetts Institute of Technology, Sept. 2015

M. C. Cohen, "Network Time Synchronization Using Decentralized Kalman Filtering," M.S. Thesis, Technion, Oct. 2009

Case Studies

M. C. Cohen, C. D. Guetta, W. Xiao, "Supply Chain Coordination and Contracts in the Sharing Economy - a Case Study at Cargo," Columbia CaseWorks 180203, April 2018. Available through Harvard Business Publishing

M. C. Cohen, G. Perakis, "Optimizing Promotions for Supermarkets Using Data Analytics," Published at thecasecentre.org, March 2017

M. C. Cohen, W. Xiao, "Managing Champagne Inventory in a Liquor Store"

Patents

US20150081393 A1 – "Product Promotion Optimization System"
Published in March 2015 (M. C. Cohen, Z. Leung, K. Panchamgam, G. Perakis)

US20150006267 A1 – "Designing Price Incentives in a Network with Social Interactions"
Published in January 2015 (M. C. Cohen, P. Harsha, M. Ettl)

US20130275183 A1 – "Time-Dependent Product Pricing Optimizer"
Published in October 2013 (M. C. Cohen, K. Panchamgam, A. Vakhutinsky)

US20170140414 A1 – “Computerized Promotion Price Scheduling Utilizing Multiple Product Demand Model” - Published in May 2017 (M. C. Cohen, J. J. Kalas, K. Panchamgam, G. Perakis)

Teaching Experience

- 2017 - 2019 **NYU Stern**, New York, NY
Operations Management undergraduate core course (2 sections of 70 students each year).
Evaluations: 6.6, 6.7, 6.5, 6.7 (out of 7), 4.8, 4.8 (out of 5)
- 2019 **NYU Stern**, New York, NY
Operations in the Sharing Economy (doctoral course). Evaluation: 5/5
- 2016 **NYU Stern**, New York, NY
Lecturer for “Applying Revenue Management: Optimization in Retail” – M.S. in Business Analytics program - 61 students
- 2013 & 2014 **MIT**, Cambridge, MA
Instructor for “Data, Models and Decisions: Pre-Term” – MBA refresher - 93 students
- 2012 - 2013 **MIT**, Cambridge, MA
TA for “Introduction to Operations Management” – Elective/core MBA course
TA for “Introduction to Healthcare Delivery” – Elective MBA and Ph.D. course
- 2006 - 2009 **Technion**, Haifa, Israel
TA for Random Signals, Control Systems, and Non-Linear Control Systems

Students

Baek Jung Kim (2019) - Marketing Ph.D. student at NYU (advisors: M. Ishihara and V. Singh). First position: Assistant Professor of Marketing, UBC Sauder School of Business
Kevin Jiao (2019) - OM Ph.D. student at NYU. First position: FINRA, Data Scientist
Dmitry Mitrofanov (2020) - OM Ph.D. student at NYU (advisor: Srikanth Jagabathula)
Haotian Song - OM Ph.D. student at NYU (advisor: Wenqiang Xiao)
Park Sinchaisri - OID Ph.D. student at Wharton (advisor: Gad Allon)
Xiao Lei - IEOR Ph.D. student at Columbia University (advisor: Adam Elmachtoub)
Carlos Fernandez - IS Ph.D. student at NYU (advisor: Foster Provost)
Weitao Lin (2018) - M.S. in Data Science at NYU. First Position: RBC Capital Markets, Data Scientist
Marcos Galante (2018) - NYU Stern Honors Program. First Position: Goldman Sachs, Investment Banking
Junge Zhang (2020) - M.S. in Data Science at NYU

Professional Service

Senior editor for Production and Operations Management (2017-present)
Associate editor for M&SOM Special Issue on Sharing Economy and Marketplaces (2018-2019)
Associate editor for NRL Special Issue on Service Operations (2018-2019)
Advisor for Management and Business Review (2019-present)
Co-founder and co-organizer of NYC Operations Day (2018-2019)
INFORMS Revenue Management and Pricing cluster chair (2019)
Program committee for ACM conference on Economics and Computation (2019)
NYU Stern MSBA Capstone Faculty Adviser (2019-2020)

BSRM hiring committee member at McGill University (2019)
OM faculty recruitment committee member at NYU Stern (2018-2019)
OM seminar coordinator at NYU Stern (2016-2019)
OM Ph.D. program committee member at NYU Stern (2016-2019)
Co-organizer of “Disruptions in the Consumer Experience,” BSRM McGill University (2019)
Committee member of the New Frontiers in Research Fund (2019)
Reviewer: Management Science, Operations Research, Manufacturing & Service Operations
Management, Production and Operations Management, The Review of Economics and Statistics, Naval
Research Logistics, Management and Business Review, Networks, MSOM SIG, INFORMS Behavioral
OM Best Paper Award
Reviewer for Hong Kong research grants council (2017-2019)
Reviewer for the Canadian Mitacs accelerate research program (2018-2019)
Program committee for the INFORMS Revenue Management and Pricing Conference (2016)
Session chair (INFORMS 2016-2019; POMS 2016, 2018)
Student coordinator for the MIT ORC Seminar series (Spring 2013), Officer at the INFORMS student
chapter at MIT (2010-2011)

Awards & Grants

2019: Finalist in the INFORMS Data Mining Section Best Paper Competition
2019: Finalist in the INFORMS BOM Section Best Working Paper Competition
2019: Best Paper Award in Operations and Supply Chain Management, Academy of Management
2019: Honorable Mention in the ENRE Best Publication Award in Environment and Sustainability
2019: Finalist in the INFORMS Case Competition
2019: Cherre’s Gift for Research Excellence: Applying Data Science to Real Estate - \$10,400, Role: PI
2019-2021: SSHRC New Frontiers Grant: AI-Tribunal for Small Claims: Building an Intelligent Dispute
Resolution System - \$244,562, Role: Co-applicant (with S. Dahan, X. Zhu, J. Serpa, Y. Levin, J. Touboul)
2018: M&SOM Meritorious Service Award
2018: First Place in the Best Cluster Paper Award - INFORMS Service Science
2018: Finalist in the M&SOM Student Paper Competition (student: Baek Jung Kim)
2018: First Place in the INFORMS Case Competition
2018: Best Technical Presentation, AGIFORS Annual Symposium
2017: M&SOM Meritorious Service Award
2017: Honorable mention in the Best Cluster Paper Award - INFORMS Service Science
2016: INFORMS Revenue Management and Pricing Dissertation Award
2016: First Place in the Best Cluster Paper Award - INFORMS Service Science
2015: Finalist in the INFORMS Revenue Management and Pricing Practice Award
2015: First Place in the Best Student Paper POM Supply Chain
2015: 2015 NEDSI Conference Best Application of Theory Award
2014: First Place in the Best Student Paper - INFORMS Service Science
2014-2015: UPS Ph.D. Fellowship (awarded to a single MIT Ph.D. student)
2013-2014: Martin’s Fellowship for Sustainability
2011-2012: MIT Energy Initiative Fellowship
2006-2008: Technion Excellence scholarship and Lady Davis Fellowship
2007: Winner of the Technion Creativity in Science and Technology competition
2007: Best student project of the 47th Israel Annual Conference on Aerospace Sciences

2002-2006: Technion Presidential and Dean Honors

Seminars and Research Presentations

2020: University of Toronto (scheduled)

2019: Cornell Tech, Google Product Analytics, POMS Conference, Triennial Invitational Choice Symposium, INFORMS Annual Meeting (scheduled), Microsoft Economics Seminar (scheduled), Queens University (scheduled), McGill Decision Neuroscience Seminar (scheduled)

2018: NYU OM Seminar, OMEGA Baruch College Seminar, Via Growth and Data Science Meeting, NYU IS Seminar, Fashion Retail Conference, Technion IE&M Seminar, Marketplace Innovation Workshop, RMP Conference, MSOM Service SIG and MSOM Conference, MIT OM Seminar, McGill Retail Seminar, UT Austin McCombs, Spotify Research and ML Seminar, INFORMS Annual Meeting

2017: University of Maryland, NYU OM Seminar, MSOM Conference, ACM SIGMETRICS, INFORMS Annual Meeting

2016: Google Cloud Analytics Seminar, RMP Conference, NYU Stern IOMS Colloquium, POMS Conference, Google Algorithms Seminar, ACM Conference on Economics and Computation, INFORMS Annual Meeting

2015: Cornell Johnson, Cornell ORIE, Duke Fuqua, UNC Chapel Hill, UT Dallas, Chicago Booth, NYU Stern, Boston College, Harvard Business School, Michigan Ross, Berkeley Haas, Stanford GSB, Yale SOM, Columbia DRO, CMU Tepper, UCLA Anderson, INSEAD, Cornell Tech, Google NYC, McGill, RMP Conference, NEDSI, MSOM Conference, ISMP, POMS Conference, INFORMS Annual Meeting

2014: Technion IE&M Seminar, UBC Sauder, Northwestern Kellogg, Cornell Big Data Workshop, MSOM Conference, Oracle Retail Seminar, MIT Sloan OM Seminar, INFORMS Annual Meeting

2013: MSOM Conference, INFORMS Annual Meeting

2012: ISMP, Optimization Seminar IBM Watson Research Center, MSOM Conference, POMS Conference, INFORMS Annual Meeting

2011: MIT Sloan OM Seminar, IBM Student Workshop on Smarter Cities, MIT Energy Research Conference, POMS Conference, INFORMS Annual Meeting

Languages, Computer Skills, and Personal

Languages: French (native), English (fluent), Hebrew (fluent)

Programming languages: R, Python, MATLAB, C/C++, Maple, Gurobi/CPLEX/Julia

Extracurricular activities: hiking, travelling, and sports: squash, soccer, tennis