

Rim Hariss

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Employment History

- 2019 - Present **Desautels Faculty of Management**, Montreal-QC, Canada
Assistant Professor of Operations Research / Operations Management
- 2016
(May-Aug) **IBM Research**, Yorktown Heights, US
Research Scientist at the Business Solutions and Mathematical Sciences Division
- 2012
(Jul-Sep) **Corporates Value Associates**, Paris, France
Summer Consultant

Education

- 2014 - 2019 **Massachusetts Institute of Technology**, Cambridge, MA
PhD in Operations Research; Operations Research Center-MIT
GPA: 4.8/5.0
Advisors: Georgia Perakis and Karen Zheng
Relevant Courses: Integer Optimization, Machine Learning, Analytics Edge, Statistics under an Optimization Lens, Fundamentals of Probability, Linear Programming, Theory of Operations Management.
- 2011 - 2014 **Ecole Polytechnique**, Palaiseau, France
Master of Science in Applied Mathematics (Statistics and Operations Research).
Bachelor of Science with major in Applied Mathematics and minor in Physics, June 2013
GPA: 4.11/4.0
Relevant Courses: Stochastic Calculus in Finance, Times Series Analysis, Stochastic Processes and Monte Carlo Methods, Statistical Learning and Non-Linear Estimation, Data Mining.
- 2009 - 2011 **Lycée Moulay Youssef, Rabat- Lycée Moulay AlHassan- Tangier**, Morocco.
Preparatory classes for the French national entrance exam for admission to the 'Grandes Ecoles' Science and Engineering schools.

Research Experience

- 2014 – 2019 **Massachusetts Institute of Technology**, Cambridge, MA
Research Assistant
Worked on addressing challenges in the field of prescriptive optimization and exploring how machine learning techniques, data mining and optimal control theory can be incorporated into operational optimization problems.
- 2014 **University of California Berkeley**, Berkeley, CA
Visiting Student Researcher
Built traffic assignment and user equilibrium models for Los Angeles' area (Convex Optimization and algorithmic game theory).
- 2013 **Ecole Polytechnique**, Palaiseau, France
Research Project

Advisors: Prof. Stéphane Gaubert and Thierry Vanhaderbegue

Applied optimization algorithms derived from the field of Operations Research to include paid options in methods at Air France.

2012 - 2013

Ecole Polytechnique, Palaiseau, France

Modeling and Optimizing of Queuing Systems

2013 Top 10 Student Research Projects at Ecole Polytechnique

Supervisor: Dr. Amandine Veber

Developed a mathematical model of queuing systems and management flow based on the case study of the university Paris-Saclay's refectory.

Accepted Publications

"Approximate Bi-level Programming via Pareto Optimization for Imputation and Control of Optimization and Equilibrium models", with J. Thai, A. Bayen, **ECC2015**, 322-327.

"A Multi-Convex Approach to Latency Inference and Control in Traffic Equilibria from Sparse Data", with J. Thai, A. Bayen, **ACC2015**, 689-695.

"Data-driven Optimization with Behavioral Considerations: Applications to Pricing", Ph.D. Thesis, Massachusetts Institute of Technology, Sept. 2019.

Under Review and Working Papers

"Pricing for Heterogeneous Products: Analytics of Ticket Reselling", with M. Alley, M. Biggs, C. Herrmann, M. Li and G. Perakis, **Major Revision in MSOM**.

- Finalist, 2019 MSOM Best Practice Based Research Paper Competition

"Optimizing Objective Functions Determined from Random Forests", with M. Biggs and G. Perakis, **Submitted to POM journal**.

- Winner, 2018 INFORMS Data Mining Best Theoretical Paper Competition

"Markdown Pricing with Quality Perception", with G. Perakis, W. Sinchaisri and K. Zheng, **Major Revision in MSOM**.

- Runner-up, 2017 Best Operations Research Center Student Paper

"Promotion Planning in the Presence of Rewards Programs", with G. Perakis and K. Zheng, working paper.

"Location-based Audience Segmentation and Personalized Geo-targeting via Random Walks", with W. Sun and W. Gifford, in preparation.

Teaching Experience

McGill University, Montréal- QC, Canada

Winter 2020 (January-April)

Instructor for Operations Management MGCR 472- Core undergraduate class (2 sections of 60 students each)

Massachusetts Institute of Technology, Cambridge, MA

Teaching Assistant

- Taught weekly recitations, developed course materials, held office hours, tutored students, created and graded assignments.
- Coordinated a simulation game that uses concepts from demand forecasting, inventory management and capacity analysis.
- Contributed to the creation of an innovation-centered assignment (pitching a new operations-centered venture).

2017 (summer): Introduction to Operations Management (15.778), **Grade: 6.61/7** (120 students)

2016 (Fall): The Analytics of Operations Management (15.S72), *Grade: 6.12/7*
2016 (Fall): Stochastic Models in Business Analytics (15.780), *Grade: 6.12/7*
2015 (Fall): MBA core course: Data, Models, and Decisions (15.060) (60 students)

Lycée Julie-Victoire Daubié-Académie de Versailles, Versailles, FRANCE

Teacher assistant

- Developed content materials and practice problems, trained and assessed students for math's orals, managed 5 classes of 30 students each.

Awards and Grants

- 2019-2022: McGill Research Grant- \$45,000
- 2019: Finalist, MSOM Best Practice Based Research Paper Competition
- 2018: Winner, INFORMS Data Mining Best Theoretical Paper Competition
- 2017: Runner-up, Best Operations Research Center Student Paper- MIT
- 2014-2015: Jean Gaillard Fellowship awarded by the committee on General Scholarships of Harvard University
- 2011-2014: Egide grant (€48,000) awarded by the French Ministry of Foreign Affairs
- 2012-2013: Top 10 Student Research Projects at Ecole Polytechnique
- 2009-2011: National Moroccan merit scholarship 'ISTIHQAQ', top 100 national exam high school scores
- 2009: 1st in the Moroccan team at the 50th International Mathematics Olympiad (IMO), Bremen, Germany

Professional Service

Committee member of the Management Science Research Center, Desautels Faculty of Management (2019)

Reviewer: *Management Science, Manufacturing & Service Operations Management* (2019)

Student coordinator for the MIT ORC Seminar series (Fall 2017)

Seminars and Research Presentations

- **2020:** Canadian Operational Research Society Conference (Scheduled)
- **2019:** INFORMS Annual Meeting, OCP Invited Research Seminar, RMP Conference, POMS Conference, Imperial College, McGill University, INSEAD.
- **2018:** MIT Sloan OM Seminar, INFORMS Annual Meeting, MSOM Conference.
- **2017:** INFORMS Annual Meeting, MSOM Conference, POMS Conference, WCAI Wharton Seminar.
- **2016:** INFORMS Annual Meeting, Cornell IEOR Young Researchers Workshop, MSOM Conference, RMP Conference, Optimization Seminar IBM Watson Research Center
- **2015:** INFORMS Annual Meeting, MSOM Conference.

Skills and Activities

Languages: Arabic (native), French (Bilingual), English (full proficiency), Spanish (Conversational)

Programming and Software: Python, Matlab, R, Julia, JuMP, Gurobi/CPLEX, Java, C++, HTML/CSS, PHP

Sports: Swimming, Volley-Ball. Arts: Singing, Piano