Eugene Furman, Ph.D., Assistant Professor

Alba Graduate Business School	Phone:	(698) 890-9248
Operations and Decision Sciences	Email:	efurman@alba.acg.edu
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Research Interests

Stochastic Modeling, Queueing Theory, Dynamical Systems, Optimal Control Theory, Statistical Analysis, Machine Learning, Demand Disruptions, Healthcare Operations, Technological Services.

Academic Employment

Assistant Professor, Operations and Decision Sciences, Alba Graduate Business School,
September 2022 - present.

Postdoctoral Researcher, The Department of Mechanical and Industrial Engineering, University of Toronto,
September 2021 - September 2022.

Postdoctoral Researcher, Operations Management, Rotman School of Management,
November 2020 - September 2021.

Education

Ph.D. Operations Management, Schulich School of Business at York University, 2020.

  Committee: Adam Diamant (Advisor), David Johnston, Alexey Kuznetsov.

M.A. Mathematics and Statistics, York University, 2015.

  Survey Paper Advisor: Hongmei Zhu (The Capital Asset Pricing Model and its Application in the Modern Financial Industry).

M.A. Political Science: International Security and Refugees, York University, 2014.

B.Sc. Specialist Diploma (M.Sc.) Applied Mathematics & Computer Science, in collaboration with Moscow State University, Transnistrian State University, 2006.

  Thesis Advisor: Vasiliy Prigorskiy (Financial Applications of Shannon Entropy).

Refereed Journal Publications

Customer Acquisition and Retention: A Fluid Approach For Staffing
Eugene Furman, Adam Diamant, Murat Kristal
Production and Operations Management (2021)
· Winner of the 7th Canadian Operational Research Society (CORS) Student Paper Competition in Queueing

Prediction of personal protective equipment use in hospitals during COVID-19
Eugene Furman, Alex Cressman, Alexey Kuznetsov, Saeha Shin, Fahad Razak, Amol Verma, Adam Diamant
Health Care Management Science (2021)
· Special Issue: Management Science in the Fight Against Covid-19

Under Review

Furman, E. and Diamant, A. (2021), Optimal Capacity Planning for Cloud Service Providers with Periodic, Time-Varying Demand, *Operations Research*.

Furman, E., Senderovich, A., Bergsma, S., Beck, J. C. (2022), Capacity Allocation for Clouds with Parallel Processing, Batch Arrivals, and Heterogeneous Service Requirements., *Manufacturing and Service Operations Management (MSOM)*.

Working Papers

Effective Routing Policies to Process MRI Backlog of Patients in Ontario prior to and as a result of the COVID-19 Pandemic.
Joint work with Opher Baron, Andre Cire, and Adam Diamant.

Unpublished Research

Length-of-stay Prediction and its Application to Optimal Staffing for Long-Term Rehabilitation Facilities.
Joint work with Andre Cire and Adam Diamant.

Awards

- Sandra Rotman Centre for Health Sector Strategy Grant, $60,000, 2020.
- CORS Queueng SIG Annual Student Paper Competition: Winning Paper Prize, 2019.
- Ontario Graduate Scholarship, Ministry of Education, Ontario, Canada, $15,000, 2018.
- Schulich Fellowship, Schulich School of Business, $160,000, 2015-2020.
- York Graduate Scholarship, York University, $6,000, 2015.

Presentations

- *Hospital Management of Personal Protective Equipment for COVID-19*

  INFORMS Annual Meeting, Anaheim, CA, United States, 2021.
  CORS Annual Conference, Toronto-Waterloo, ON, Canada, 2021.

- *Variation Approach to Optimal Capacity Planning for Cloud Service Providers*

  CanQue Conference, Montréal, Canada, 2021.
  European Conference on Operational Research, Athens, Greece, 2021.
  CORS Annual Conference, Toronto-Waterloo, ON, Canada, 2021.

- *Length-of-stay Prediction and its Application to Optimal Staffing for Long-Term Rehabilitation Facilities*

  INFORMS Annual Meeting, Seattle, WA, USA, 2019.

- *Customer Acquisition and Retention: A Fluid Approach For Staffing*

  CORS Annual Conference, Queueing SIG, Saskatoon, SK, Canada, 2019.
  POMS Annual Conference, Washington D.C., USA, 2019.
  Schulich School of Business, Poster Presentation, Toronto, ON, Canada, 2017, 2019.
  CORS Annual Conference, Halifax, NS, Canada, 2018.

- *The Capital Asset Pricing Model and its Application in the Modern Financial Industry*

  Research and Development Presentation, Sun Life Financial, Toronto, ON, Canada, 2015.

Teaching Experience

Instructor, Alba Graduate Business School, American College of Greece.

- Quantitative Methods and Analytics, 2022 - current.

Instructor, Schulich School of Business, York University.

- Operations Management (OMIS2010), 2018 - 2020.
- Prescriptive Analytics (OMIS4000), 2018.

Teaching Assistant, Schulich School of Business, York University.

- Prescriptive Analytics (OMIS4000), 2018 - 2020.
- Graduate Business Analytics (MBAN6400), 2016 - 2020.
- Introduction to Business (MGMT1000), 2016 - 2017.
- Models & Applications in Operational Research (OMIS6000), 2015 - 2017.
- Applied Calculus (MATH1013/1014), 2014.

Industry Experience

- *Financial Model Analyst*, Sun Life Financial, Toronto, ON, Canada, 2014.

    Model Validation Unit.

    Own Risk Solvency Assessment.

- *Software Developer*, York University, Toronto, ON, Canada, 2010 - 2013.
- *Business Analyst*, Polimer Gas Construct, Moldova, 2006 - 2007.

Professional Activities and Affiliations

- *Session Chair: Modern Approaches to the Analysis of Queues with Applications*, Canadian Operational Research Society, Annual Meeting, Waterloo, ON, Canada, 2021.
- *Guest Reviewer*, Journal of the Operations Research Society of China, 2019.
- *Member*, INFORMS, 2019 - present.
- *Queueing SIG Member*, Canadian Operational Research Society (CORS), 2018 - present.
- *Member of Executive Council*, Ph.D. Student Association, Schulich School of Business, 2017 - 2018.

Additional Information

- *Language Proficiency:* Bi-lingual (English, Russian).
- *Citizenship:* Canadian.