

Rouba Ibrahim

CONTACT INFORMATION School of Management at University College London
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ACADEMIC POSITIONS **University College London, School of Management**
2012–2016 Assistant Professor
2016–2020 Associate Professor
2020– Professor
2021– Head, Operations & Technology Group

EDUCATION **American University of Beirut**
2002 B.S., Mathematics
Stony Brook University
2004 M.S., Applied Mathematics and Statistics
Columbia University
2010 Ph.D., Operations Research

RESEARCH INTERESTS *Methodology:* Queueing theory; stochastic modelling; data analytics.
Application areas: Service operations; healthcare; sharing economy.

- JOURNAL PUBLICATIONS
1. Ibrahim, R. and W. Whitt. Real-Time Delay Estimation Based on Delay History. *Manufacturing and Service Operations Management*, 11(3), 2009, pp. 397–415.
 2. Ibrahim, R. and W. Whitt. Real-Time Delay Estimation in Overloaded Multiserver Queues with Abandonment. *Management Science*, 55(10), 2009, pp. 1729–1742.
 3. Ibrahim, R. and W. Whitt. Real-Time Delay Estimation Based on Delay History with Time-Varying Arrivals. *Production and Operations Management*, 20(5), 2011, pp. 654–667.
 4. Ibrahim, R. and W. Whitt. Wait-Time Predictors for Customer Service Systems with Time-Varying Demand and Capacity. *Operations Research*, 59(5), 2011, pp. 1106–1118.
 5. Ibrahim, R. and P. L'Ecuyer. Forecasting Call Center Arrivals: Fixed-Effects, Mixed-Effects, and Bivariate Models. *Manufacturing and Service Operations Management*, 15(1), 2013, pp. 72–85.
 6. Ibrahim, R., L'Ecuyer, P., Shen, H. and M. Thiongane. Inter-Dependent, Heterogeneous, and Time-Varying Service-Time Distributions in Call Centers. *The European Journal of Operational Research*, 250(2), 2016, pp. 480–492.
 7. Ibrahim, R., Kucukyazici, B., Verter, V., Gendreau, M. and M. Bolstein. Designing Individualized Treatment: An Application to Anticoagulation Therapy. *Production and Operations Management*, 25(5), 2016, pp. 902–918.

8. Ibrahim, R., Ye, H., L'Ecuyer, P. and H. Shen. Modeling and Forecasting Call Center Arrivals: A Literature Survey and a Case Study. *The International Journal of Forecasting*, 32(3), 2016, pp. 865–874.
 9. Ibrahim, R., Armony, M. and A. Bassamboo. Does the Past Predict the Future? The Case of Delay Announcements in Service Systems. *Management Science*, 63(6), 2017, pp. 1762–1780.
 10. Ibrahim, R. Managing Queueing Systems where Capacity is Random and Customers are Impatient. *Production and Operations Management*, 27(2), 2018, pp. 207–383.
 - Honorable mention, 2015 Informs JFIG paper competition
 11. Ibrahim, R. Sharing Delay Information in Service Systems: A Literature Survey. *Queueing Systems*, 89(1-2), 2018, pp. 49–79.
 12. Ibrahim, R. and S. Kim. Is Expert Input Valuable? The Case of Predicting Surgery Duration. *Seoul Journal of Business*, 25(2), 2019, pp. 1–34.
 13. Dong, J. and R. Ibrahim. Managing Supply in the On-Demand Economy: Flexible Workers, Full-Time Employees, or Both? *Operations Research*, 68(4), 2020, pp. 965–1284.
 14. Bassamboo, A. and R. Ibrahim. A General Framework to Compare Announcement Accuracy: Static vs. LES-based Announcement. *Management Science*, 67(7), 2021, pp. 3985–4642.
 15. Ibrahim, R., Kim, S. and J. Tong. Eliciting Human Judgment for Prediction Algorithms. *Management Science*, 67(4), 2021, pp. 1993–2656.
 16. Dong, J. and R. Ibrahim. On the SRPT Scheduling Discipline in Many-Server Queues with Impatient Customers. *Management Science*, 67(12), 2021, pp. 7291–7950.
 17. Ibrahim, R. Personalized Scheduling in Service Systems. *Queueing Systems: 100 Views on Queueing (SI)*, 100, 2022, pp. 445–447.
 18. Momesso, T., B. Gokpınar, R. Ibrahim, and A. Boyle. The Effect of Removing the Four-Hour Access Standard in the ED: A Retrospective Observational Study. *Emergency Medicine Journal*, 40, 2023, pp. 630–635.
 19. Estrada, A., Ibrahim, R. and D. Zhan. On Customer (Dis)honesty in Priority Queues: The Role of Lying Aversion. *Management Science*, forthcoming.
 - Second place, 2021 Behavioral Operations Management Best Working paper
 - Finalist, 2021 Service Science IBM Best Student Paper (A. Estrada)
 20. Dong, J. and R. Ibrahim. Shortest-Job-First Scheduling in Many-Server Queues with Impatient Customers and Noisy Service-Time Estimates. *Operations Research*, forthcoming.
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| REFEREED PROCEEDINGS AND BOOK CHAPTERS | <ol style="list-style-type: none"> 21. Ibrahim, R. and W. Whitt. Real-Time Delay Estimation in Call Centers. <i>Proceedings of the 40th Winter Simulation Conference</i>, 2008, pp. 2876–2883. 22. Ibrahim, R. and W. Whitt. Delay Predictors for Customer Service Systems with Time-Varying Parameters. <i>Proceedings of the Winter Simulation Conference</i>, 2010, pp. 2375–2386. |
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23. Ibrahim, R., L'Ecuyer, P., Regnard, N. and H. Shen. On the Modeling and Forecasting of Call Center Arrivals. *Proceedings of the Winter Simulation Conference*, 2012, pp. 23–35.
24. Ibrahim, R. On Queues with a Random Capacity: Theory and Application. In: Hu M. (eds) *Sharing Economy*, Springer Series in Supply Chain Management, 6, 2019, pp. 279-316.

UNDER
REVIEW

25. Afeche, P., Hu, J., Ibrahim, R. and V. Sarhangian. The Effects of Information Granularity on Abandonment and Congestion in Non-Stationary Priority Queues. Major revision at *Management Science*.
26. Tuncalp, F., Ibrahim, R., Kim, S-H., and J. Tong. When Should Doctors and Patients Use Shared Decision-Making Under Bounded Rationality?
27. Estrada, A., Ibrahim, R. and M. Kremer. Persuasive Communication in Operations. Major revision at *Management Science*.

PROFESSIONAL
ACTIVITIES

- **Associate editor**
 - 2017– *Management Science (Stochastic Models and Simulation)*
 - 2018–2024 *Operations Research (Stochastic Models; Operations and Supply Chains)*
 - 2018–2024 *IISE Transactions (Stochastic Modelling)*
 - 2019–2024 *Manufacturing and Service Operations Management*
 - 2022- *Queueing Systems*
- **Area editor**
 - 2024– *Operations Research (Operations and Supply Chains)*
- **Guest editor**
 - 2023 *Queueing Systems: SI on Queues in Operations Management*
- **Organizing committees**
 - 2015 9th Young European Queueing Theorists workshop, Eurandom, Eindhoven, The Netherlands (with Fabio Cecchi and Florian Simatos)
 - 2016 Applied Probability Society cluster, INFORMS, Nashville, USA (with David Goldberg)
 - 2018 StochMod, conference of the EURO working group on stochastic modeling, Lancaster, U.K. (with Peter Jacko)
 - 2018 Service Management SIG workshop, MSOM, University of Texas at Dallas, USA (with Ming Hu)
 - 2020 MSOM Service Operations Track, INFORMS, Maryland, USA (with Jing Dong)
 - 2022 Service Management SIG workshop, MSOM, TU Munich, Germany (with Jing Dong)
 - 2022-2023 SNAPP seminar series (with Chang-Han Rhee, Seva Shneer, Kuang Xu, and Yuan Zhong)

- 2023 Applied Probability Society conference (Nancy, France)
- 2024 Stochastic Networks conference (Stockholm, Sweden)
- 2024-2026 European Technology & Operations Management (TOM) seminar series (with Anna Saez de Tejada Cuenca, Spyros Zoumpoulis, and Alex Yang)
- 2025 Young European Queueing Theorists workshop, Eurandom, Eindhoven, The Netherlands (with Izzy Grosf and Fiona Sloothaak)
- 2024-2026 SNAPP seminar advisory committee (member)

- **Professional society roles**

- 2015-2017 Applied Probability Society council (member)
- 2019-2020 MSOM Society (secretary/ treasurer)
- 2023-2027 INFORMS publications committee (member)
- 2023-2025 Service Management Special Interest Group Chair for the MSOM Society

- **Ad-hoc referee**

Operations Research, Management Science (Distinguished service award 2014, 2018), Manufacturing and Service Operations Management (Meritorious service award 2017), Production and Operations Management, etc.

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| INVITED TALKS AT ACADEMIC INSTITUTIONS | 2009 | University of Montreal, The George Washington University (School of Business), University of British Columbia (Sauder) |
| | 2010 | University of Michigan (Ross), University of Rochester (Simon) |
| | 2012 | University of Alberta (School of Business), University of Groningen (Faculty of Economics and Business), Erasmus University (Rotterdam School of Management), Vrije Universiteit Amsterdam (Mathematics), Delft University (Applied Mathematics), London Business School, City University London (Cass), University College London (Management Science & Innovation) |
| | 2013 | Vrije Universiteit Amsterdam (Mathematics) |
| | 2014 | Eindhoven University of Technology (YEQT Workshop) |
| | 2016 | Durham University (Business School), Frankfurt School of Finance and Management, Oxford University (Said), London Business School, Northwestern University (Kellogg), University of Manchester (Mathematics) |
| | 2017 | Lancaster University (Management School), University of Edinburgh (Mathematics), Columbia University (IEOR, Applied Probability Day), University of Chicago (Booth), Indiana University (Kelley), University of Illinois at Urbana Champaign (College of Business), University of North Carolina at Chapel Hill (Kenan-Flagler, discussant at MSOM Service SIG) |
| | 2018 | MIT (Sloan), University of Texas at Austin (OR & IE), University of Southern California (Marshall), Stanford (GSB) |
| | 2019 | Imperial College London (Business School) |
| | 2020 | Birkbeck, University of London (Maths & Stats) |
| | 2021 | University of Toronto (Rotman), University of Luxembourg (Economics & Management), CUNY (Baruch College), European TOM Seminar Series, Indiana University (Kelley, discussant at MSOM Service SIG) |
| | 2022 | Chinese University of Hong Kong (DSE), VU Amsterdam (Mathematics), University of Western Ontario (Ivey), Cornell University (Stochastic Networks conference), UCLA (Anderson), Johns Hopkins University (Carey), Data-Driven Queueing Challenges II (multi-continent online workshop). |

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| | 2023 | University of Bath (School of Management), University of Bristol (Mathematics), Imperial College London (Business School), Oxford (Said). |
| | 2024 | Carnegie Mellon University (Tepper), Royal Statistical Society (workshop on Queues and Applications), Durham (Business school), Data-Driven Queueing Challenges conference (Eurandom). |
| | 2025 (invited) | INSEAD (TOM), University of Michigan (Ross), University of Luxembourg (Economics & Management), Stanford (GSB), 2nd London Operations Research Day (Oxford University). |
| KEYNOTE PRESENTATIONS | 2023 | CORS Virtual Micro-Event, Canadian Operations Research Society. |
| | 2024 | Dutch conference on the Mathematics of Operations Research, Soesterberg, The Netherlands. |
| | 2024 | New2OR Conference, London, U.K. |
| TEACHING | | Stony Brook University Precalculus (undergraduate) |
| | | Columbia University Probability (undergraduate) |
| | | University College London Mathematical Foundations of Management (undergraduate) Stochastic Modelling (Ph.D.) |
| | | London Business School (as Guest Lecturer) Operations Management (MBA, core course) |
| SUPERVISION | | Doctoral students Arturo Estrada (2018 - 2024). First placement: Catolica-Lisbon School of Business and Economics Tomas Momesso (2020 -) |
| | | Postdoctoral students Junqi Hu (2020 -), joint with Philipp Afeche and Vahid Sarhangian Fery Tuncalp (2021 -), joint with Song-Hee Kim and Jordan Tong |
| PATENTS | | “Method for predicting call waiting times.” 2012. US Patent 8,311,208 (with P. Tendick). |
| INTERNAL SERVICE (AT UCL) | 2012–2013 | Coordinator of the Management Science program (Mathematics track) Departmental representative for Integrated Engineering Program (IEP) |
| | 2013 | Internal examiner, PhD of Ioannis Fragkos |
| | 2015–2020 | Seminar series organizer |
| | 2016 | OM area reading group organizer |
| | 2018 | Internal examiner, PhD of Ryan Palmer |
| | 2020 | Internal examiner, PhD of Xiaojia Guo |
| | 2022 | Internal examiner, PhD of Sidika Tunc |
| PREVIOUS POSITIONS | 2007 | Deutsche Bank, summer associate, Global Markets |
| | 2009 | Avaya Research Labs, research scientist, Data Analysis department |

2010–2011 Bell Canada, consultant
2010 University of Montreal, postdoctoral fellow (with P. L'Ecuyer)
2011 McGill University, postdoctoral fellow (NSERC CREATE Program)