M. Reza Skandari, Ph.D.

r.skandari@imperial.ac.uk
imperial.ac.uk/people/r.skandari
+44 20 7594 8232
Room 380 South Kensington Campus Ayrton Rd Kensington London SW7 2AZ

Academic and Professional Experience

Academic Experience

2018 – curr. **Imperial College London.** Imperial College Business School, Centre for Health Economics & Policy Innovation (CHEPI), Assistant Professor of Health Operations

2016 – 2018 **University of Chicago.** Department of Medicine, Senior Research Analyst, Faculty Development Program Instructor

2011 – 2016 **University of British Columbia.** Sauder School of Business, Postgraduate Researcher, Postgraduate and Undergraduate Course Leader

2009 – 2011 **University of Florida.** Industrial & Systems Engineering Department, Research and Teaching Assistant

2007 – 2009 **University of Tehran.** Industrial & Systems Engineering Department, Research and Teaching Assistant

2003 – 2009 **Sharif University of Tehran.** Industrial & Systems Engineering Department, Research and Teaching Assistant

Education

2011 – 2016 **University of British Columbia** PhD in Management Science.

2009 – 2011 **University of Florida** M.Sc. in Operations Research.

2007 – 2009 **University of Tehran** M.Sc. in Industrial & Systems Engineering.

2003 – 2007 **Sharif University of Technology** B.Sc. in Industrial & Systems Engineering

Research Interests

- **Improving operations efficiency** in resource-constrained healthcare systems using data-driven models
- **Advancing mathematical methodologies** used in optimizing stochastic dynamic systems

Academic and Professional Development

2023 **International Teachers Programme.** Vlerick Business School, Belgium

2020 **Interactive Teaching Workshop.** Educational Development Unit at Imperial College London

2019 **Unconscious Bias Workshop.** Imperial College London

Research Works

Published Articles

1 Dadwani, R. S., Wan, W., **Skandari**, **R.**, & Huang, E. S. (2023). Expected health benefits of sglt-2 inhibitors and glp-1 receptor agonists in older adults. *MDM Policy & Practice*, *8*(2), 23814683231187566.

2 Porter, J., Boyd, C., **Skandari**, **R.**, & Laiteerapong, N. (2023). Revisiting the time needed to provide adult primary care. *Journal of general internal medicine*, *38*(1), 147–155. doi:10.1007/s11606-022-07707-x

3 Nair, V., Auger, S., Kochanny, S., Howard, F. M., Ginat, D., Pasternak-Wise, O., … **Skandari**, **R.** (2022). Development and Validation of a Decision Analytical Model for Posttreatment Surveillance for Patients With Oropharyngeal Carcinoma. *JAMA Network Open*, *5*(4), e227240–e227240. doi:10.1001/jamanetworkopen.2022.7240

4 Choi, J. G., Winn, A. N., **Skandari**, **R.**, Franco, M. I., Staab, E. M., Alexander, J., … Philipson, L. et al. (2022). First-line therapy for type 2 diabetes with sodium–glucose cotransporter-2 inhibitors and glucagon-like peptide-1 receptor agonists: A cost-effectiveness study. *Annals of Internal Medicine*, *175*(10), 1392–1400. doi:10.7326/M21-2941

5 Alexander, J. T., Staab, E. M., Wan, W., Franco, M., Knitter, A., **Skandari**, **R.**, … Philipson, L. H. et al. (2021a). Longer-term benefits and risks of sodium-glucose cotransporter-2 inhibitors in type 2 diabetes: A systematic review and meta-analysis. *Journal of general internal medicine*, 1–10. doi:10.1007/s11606-021-07227-0

6 Alexander, J. T., Staab, E. M., Wan, W., Franco, M., Knitter, A., **Skandari**, **R.**, … Philipson, L. H. et al. (2021b). The longer-term benefits and harms of glucagon-like peptide-1 receptor agonists: A systematic review and meta-analysis. *Journal of general internal medicine*, 1–24. doi:10.1007/s11606-021-07105-9

7 Dadwani, R., **Skandari**, **R.**, GoodSmith, M., Phillips, L., Rhee, M., & Laiteerapong, N. (2020). Alternative type 2 diabetes screening tests may reduce the number of us adults with undiagnosed diabetes. *Diabetic Medicine*, *37*(11), 1935–1943. doi:10.1111/dme.14330

8 Miksanek, T. J., **Skandari**, **R.**, Ham, S. A., Lee, W. W., Press, V. G., Brown, M. T., & Laiteerapong, N. (2020). The productivity requirements of implementing a medical scribe program. *Annals of Internal Medicine*. doi:10.7326/M20-0428

9 **Skandari**, **R.**, & Shechter, S. (2020). Patient-Type Bayes-Adaptive Treatment Plans. *Operations Research*. Published Online. doi:10.1287/opre.2020.2011

10 GoodSmith, M. S., **Skandari**, **R.**, Huang, E. S., & Naylor, R. N. (2019). The impact of biomarker screening and cascade genetic testing on the cost-effectiveness of MODY genetic testing. *Diabetes Care*, *42*(12), 2247–2255. doi:10.2337/dc19-0486

11 Wan, W., Nathan, A. G., **Skandari**, **R.**, Zarei, P., Reid, M. W., Raymond, J. K., & Huang, E. S. (2019). Cost-effectiveness of shared telemedicine appointments in young adults with T1D: CoYoT1 trial. *Diabetes care*, *42*(8), 1589–1592. doi:10.2337/dc19-0363

12 Laiteerapong, N., Cooper, J. M., **Skandari**, **R.**, Clarke, P. M., Winn, A. N., Naylor, R. N., & Huang, E. S. (2018). Individualized glycemic control for us adults with type 2 diabetes: A cost-effectiveness analysis. *Annals of Internal Medicine*, *168*(3), 170–178. doi:10.7326/M17-0537

13 Wan, W., **Skandari**, **R.**, Minc, A., Nathan, A. G., Winn, A., Zarei, P., … Huang, E. S. (2018). Cost-effectiveness of continuous glucose monitoring for adults with type 1 diabetes compared with self-monitoring of blood glucose: the DIAMOND randomized trial. *Diabetes Care*, *41*(6), 1227–1234. doi:10.1177/0272989X18803109

14 Wan, W., **Skandari**, **R.**, Minc, A., Nathan, A. G., Zarei, P., Winn, A. N., … Huang, E. S. (2018). Cost-effectiveness of initiating an insulin pump in T1D adults using continuous glucose monitoring compared with multiple daily insulin injections: the DIAMOND randomized trial. *Medical Decision Making*, *38*(8), 942–953. doi:10.2337/dc19-0363

15 Shechter, S. M., Chandler, T., **Skandari**, **R.**, & Zalunardo, N. (2017). Cost-effectiveness analysis of vascular access referral policies in CKD. *American Journal of Kidney Diseases*, *70*(3), 368–376. doi:10.1053/j.ajkd.2017.04.020

16 **Skandari**, **R.**, Shechter, S. M., & Zalunardo, N. (2015). Optimal vascular access choice for patients on hemodialysis. *Manufacturing & Service Operations Management*, *17*(4), 608–619. doi:10.1287/msom.2015.0552

17 Shechter, S. M., **Skandari**, **R.**, & Zalunardo, N. (2014). Timing of arteriovenous fistula creation in patients with CKD: a decision analysis. *American journal of kidney diseases*, *63*(1), 95–103. doi:10.1053/j.ajkd.2013.06.021

18 Salmasi, N., Logendran, R., & **Skandari**, **R.** (2011). Makespan minimization of a flowshop sequence-dependent group scheduling problem. *The International Journal of Advanced Manufacturing Technology*, *56*(5-8), 699–710. doi:10.1007/s00170-011-3206-9

19 Azadeh, A., **Skandari**, **R.**, & Maleki-Shoja, B. (2010). An integrated ant colony optimization approach to compare strategies of clearing market in electricity markets: Agent-based simulation. *Energy Policy*, *38*(10), 6307–6319. doi:10.1016/j.enpol.2010.06.022

20 Salmasi, N., Logendran, R., & **Skandari**, **R.** (2010). Total flow time minimization in a flowshop sequence-dependent group scheduling problem. *Computers & Operations Research*, *37*(1), 199–212. doi:10.1016/j.cor.2009.04.013

Works under Review

1 Mohammadi, N., **Skandari**, **R.**, & Shah, A. (2022). *Efficient Discovery of Cost-effective Policies in Sequential, Medical Decision-Making Problems*. Under Review at *Operations Research*. Retrieved from https://optimization-online.org/?p=21723

Works in Progress

1 **Skandari**, **R.**, & Mohammadi, N. (n.d.). *Provably improving approximations for partially observable Markov decision processes*. to be submitted to *The INFORMS Journal on Computing*.

2 **Skandari**, **R.**, & Mullington, C. (n.d.). *Optimizing efficiency in emergency theatres*.

3 **Skandari**, **R.**, & Zamani, N. (2022). *Optimal recurrence surveillance for cancer patients post treatment: The case of head and neck cancer*. to be submitted to *European Journal of Operational Research*.

Dissertations

1 **Skandari**, **R.** (2016). *Optimal Treatment Planning under Consideration of Patient Heterogeneity and Preparation Lead-Time* (Doctoral Dissertation, Sauder School of Business, University of British Columbia, Vancouver, BC, Canada). Under the supervision of Prof. Steven Shechter. doi:10.14288/1.0314138

2 **Skandari**, **R.** (2009). *Designing a Decision Support System (DSS) to Manage Time, Cost, and Quality of a Project.* (Master's Thesis, University of Tehran). Under the supervision of Prof. Reza Ghodsi.

3 **Skandari**, **R.** (2007). *Scheduling a Flowshop Manufacturing Cell with Sequence Dependent Family Setups.* (Bachelor's Thesis, Sharif University of Technology). Under the supervision of Prof. Nasser Salmasi.

Presentations and Seminars

Invited Seminars

1 The Center for Chronic Disease Research and Policy, University of Chicago, (2023).

2 European Technology Operations Management (TOM) Seminar Series. (2021).

3 Sauder School of Business, University of British Columbia. (2019).

4 Department of Industrial & Systems Engineering, University of Wisconsin-Madison. (2018).

5 Imperial College Business School, Imperial College London. (2018).

6 Industrial & Systems Engineering Department, the University of Tennessee. (2018).

7 Lindner College of Business, University of Cincinnati. (2018).

8 School of Management, the State University of New York at Binghamton. (2018).

9 Systems Science & Industrial Engineering Department, the State University of New York at Binghamton. (2018).

10 Desautels School of Management, McGill University. (2016).

11 Grand Rounds at Division of Nephrology, University of British Columbia. (2016).

12 School of Management, University of California, Merced. (2016).

13 University of Alberta School of Business. (2016).

Conference Seminars

1 33rd POMS Annual Conference. (2023), Orlando, FL, USA.

2 INFORMS HealthCare Conference. (2023), Toronto, ON, Canada.

3 MSOM Conference. (2022), Munich, Germany.

4 INFORMS Annual Meeting. (2021), Anaheim, CA, USA.

5 Applied Probability Society Conference. (2017), Evanston, IL, USA.

6 INFORMS Annual Meeting. (2017), Houston, TX, USA.

7 Canadian Operations Research Society Annual Conference. (2016), Nashville, TN, USA.

8 INFORMS Annual Meeting. (2016), Nashville, TN, USA.

9 INFORMS Annual Meeting. (2015), Philadelphia, PA, USA.

10 Manufacturing & Service Operations Management Conference. (2015), Toronto, ON, Canada.

11 INFORMS Annual Meeting. (2014), San Francisco, CA, USA.

12 Canadian Operations Research Society Annual Conference. (2013), Vancouver, BC, Canada.

13 INFORMS Annual Meeting. (2012), Phoenix, AZ, USA.

14 The 34th Annual Meeting of the Society for Medical Decision Making. (2012), Phoenix, AZ, USA.

15 INFORMS Annual Meeting. (2011), Charlotte, NC, USA.

16 INFORMS Annual Meeting. (2010), Austin, TX, USA.

Teaching and Lectureship

Post-graduate Course Leader

2019 – 2022. **Decision Analytics** Master of Management Programme Programme. *Imperial College Business School*

2021–2022 **Project Management** Master of Management Programme. *Imperial College Business School*

2019 **Stochastic Dynamic Programming** Doctoral Programme. *Imperial College Business School*

Teaching and Lectureship (continued)

2014 – 2015
- **Simulation for Decision Making** Master of Business Analytics Programme. *Sauder School of Business, University of British Columbia*
- **Advanced Simulation for Decision Making** Master of Business Analytics Programme. *Sauder School of Business, University of British Columbia*

Faculty Development Program, Course Leader

2017
- **Cost-Effectiveness Analysis and Modeling** *Department of Medicine, University of Chicago*

Undergraduate Course Leader

2018—2021
- **Project Management** The Business for Professionals of Engineering and Science (BPES) Programme. *Imperial College Business School*

2015
- **Logistics and Operations Management** Bachelor of Commerce (BCom) *Sauder School of Business, University of British Columbia*

Teaching Assistant

2011—2016
- **University of British Columbia** Managerial Decision Modeling and Analytics, Logistics and Operations Management

2010—2011
- **University of Florida** Quality Control

2007—2009
- **University of Tehran** Production Planning and Inventory Management

2003—2007
- **Sharif University of Technology** Queuing Theory, Discrete Event Simulation, C Programming Language, Management Information Systems

Grants and Awards

Research Grants

2018-2022
- **American Cancer Society**, *Co-Principal Investigator*.
  Mathematical Prediction Models to Optimize Post-Treatment Surveillance in Head and Neck Cancer.
- **Bucksbaum Institute for Clinical Excellence at the University of Chicago**, *Co-Principal Investigator*.
  Building the Business Case for Medical Scribes
- **American Diabetes Association**, *Consultant*.
  Examining the U.S. cost-effectiveness of alternative glycemic treatment algorithms in the era of new medications
- **National Institute on Minority Health and Health Disparities**, *Consultant*. Predicting and Reducing Future Health Disparities for U.S. Adults with Diabetes

Awards

2022
- **Teaching Excellence Award in PhD Supervision**. Imperial College London

2012
- **Lusted Award Finalist**. Society for Medical Decision Making.

2012—2015
- **Dean Earle D MacPhee Memorial Fellowship**. Awarded by the University of British Columbia.

2011—2015
- **Sauder School of Business Graduate Award**. Awarded by the University of British Columbia.

2010—2012
- **Alumni Fellowship**. Awarded by the University of Florida.

Student Supervision

PhD

2019 – curr. **Narges Mohammadi**
Thesis: *Optimal hearing loss monitoring and infection treatment planning for patients with chronic lung disease*

2020 – curr. **Tarita Murray-Thomas**
Thesis: *Real-world clinical data in health technology assessments in cardiovascular medicine*

Master of Research Leading to PhD

2020 – 2021. **Niloofar Zamani**
Thesis: *Optimal recurrence surveillance for cancer patients post treatment: the case of head and neck cancer*

Pre-doctoral

2019 – curr. **Jaime Cheong**
Thesis: *NIHR Integrated Clinical and Practitioner Academic (ICA) Programme Pre-doctoral Clinical and Practitioner Academic Fellowship (PCAF)*

Academic Service

Internal Service

2023 **Admission Committee, BSc Economics, Finance and Data Science**
2022 **Program Review, MSc International Health Management**

Journal Peer Review

Operations **Management Science**
Operations Research
Manufacturing & Service Operations Management
Production and Operations Management
Naval Research Logistics
Health Care Management Science
IISE Transactions
Economics **Health Economics**
Clinical **Heart, BMJ**

Conference Organization

2023 **European TOM seminar series** Seminar moderation
2022 **MSOM Conference** SIG paper review
2015-2017 **INFORMS Annual Meeting** Session organization for HAS society

References

Prof. Steven Shechter, Professor at the Sauder School of Business at the University of British Columbia, Vancouver, BC, Canada (email: steven.shechter@sauder.ubc.ca)

References (continued)

- Prof. Mahesh Nagarajan, Professor and Chair of the Operations and Logistics Division at the Sauder School of Business at the University of British Columbia, Vancouver, BC, Canada (email: mahesh.nagarajan@sauder.ubc.ca)
- Prof. Maurice Queyranne, Professor at the Sauder School of Business at the University of British Columbia, Vancouver, BC, Canada (email: maurice.queyranne@sauder.ubc.ca)
- Prof. Elbert Huang, MD, MPH, Professor of Medicine, Director of the Center for Translational and Policy Research of Chronic Diseases, and Associate Director of the Chicago Center for Diabetes Translation Research at the University of Chicago (email: ehuang@medicine.bsd.uchicago.edu)
- Prof. Nadia Zalunardo, MD, Clinical Associate Professor of Nephrology at the University of British Columbia, Vancouver, and the Director of the Kidney Clinic at Vancouver General Hospital, (email: nadia.zalunardo@vch.ca)

Last updated on August 11, 2023.