

RESUME

APRIL, 2023

1. PERSONAL DETAILS

Full Name: Noa Zychlinski

Identity No: 034977504

Date and place of birth (optional): 11/7/1979, Israel

Marital status (optional): Married+3 kids

Phone numbers: 050-8323332

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2. ACADEMIC DEGREES

2013-2018 **PhD** Faculty of Industrial Engineering and Management, Technion – Israel Institute of Technology.
Advisors: Prof. Avishai Mandelbaum and Dr. Izack Cohen

2010-2012 **MSc** Faculty of Industrial Engineering and Management, Technion – Israel Institute of Technology.
Advisors: Prof. Avishai Mandelbaum and Dr. Izack Cohen
Graduated Summa Cum Laude

2001-2005 **BSc** Faculty of Industrial Engineering and Management, Technion – Israel Institute of Technology.
Major: Business Information Systems.
Graduated Cum Laude

3. ACADEMIC APPOINTMENTS

2020-present **Assistant Professor**, Faculty of Industrial Engineering and Management, Technion – Israel Institute of Technology.
Career Advancement Chair in Economics and Finance (2020-2022)

2018- 2020 **Postdoctoral Research Fellow**, Division of Decision, Risk, and Operations, Columbia Business School, NYC. Advisors: Prof. Carri W. Chan and Prof. Jing Dong

4. PROFESSIONAL EXPERIENCE (outside academia)

2005–2010 Medatech Information Technologies, Israel

2008–2010 Team Leader and Senior Project Manager of ERP system implementation projects.

2005–2007 Project manager of ERP system implementation projects.

1997–2001 Computer and signal officer as part of IDF compulsory service.

5. RESEARCH INTERESTS (briefly)

My research focuses on service operations and management and stochastic modeling. I am interested in the analysis of queueing networks and their applications, the theory of stochastic process approximation, and data analysis of large service systems. I work primarily on operational models that are motivated by healthcare systems, in which strategic and operational decisions have the potential to improve patient care and patient outcomes, shorten waiting times and reduce operational costs.

In particular, my main research domains are stochastic modeling (1–9), processing networks and their approximations (2,3,6,8), healthcare operations (1,4,7,9) and scheduling of queueing systems (5,7).

6. TEACHING EXPERIENCE

Teacher In-Charge

- Project management (undergraduate)
- Simulation – Modeling, Analysis and Applications (undergraduate)

Teaching Assistant at Columbia Business School (2019):

- Operations Management (Executive MBA)

Teaching Assistant at the Technion in the following courses (2010–2018)

- Service Engineering (undergraduate and graduate)
- Advanced Topics in IE - Healthcare Operation (graduate)
- Introduction to Probability and Statistics (undergraduate)
- Facility Layout and Location Planning (undergraduate and graduate)

7. TECHNION ACTIVITIES

2021–Current A judge at the Technion’s Disciplinary Court

8. DEPARTMENTAL ACTIVITIES

2021–2022 Member of the curriculum committee

2020–2021 Academic advisor of undergraduate final projects

9. PUBLIC PROFESSIONAL ACTIVITIES

Reviewer of scientific journals: Operations Research, Manufacturing and Service Operations Management, Production and Operations Management, IISE Transactions

10. MEMBERSHIP IN PROFESSIONAL SOCIETIES

INFORMS – Institute for Operations Research and the Management Sciences (2018–current).

MSOM - Manufacturing and Service Operations Management (2018–current).

POMS - Production and Operations Management Society (2018–current).

ORSIS - The Operations Research Society of Israel (2018–current).

11. FELLOWSHIPS, AWARDS AND HONORS

- Technion, commendation for teaching excellence – awarded based on students’ evaluations, 2021.
- Career Advancement Chair, Technion, 2020–2022
- The Israeli Council for Higher Education Postdoctoral Fellowship, USD\$80,000, 2018–2019.
- The Eric and Wendy Schmidt Postdoctoral Award for Women in Mathematical and Computing Sciences, USD\$100,000, 2018–2019.
- Israel Ministry of Science, Technology and Space (MOST), Outstanding PhD Student Grant in the Field of Applied and Engineering Science, USD\$71,000, 2016–2018.
- Muriel and David Jacknow Award for continuous excellence in teaching, USD\$2,500, 2018
- Faculty of Industrial Engineering and Management, Technion, First Place: Best Research Poster Competition, 2017.
- Technion, Excellent Teaching Assistant Award – awarded based on students’ evaluations, 2011–2018.
- Technion, Doctoral Fellowship, 2013–2018.
- The “Jewish National Fund” Excellence Student Award, 2011.
- Technion, Graduate fellowship, 2010–2012.
- Technion, President’s Award for Distinction, 2004–2005.

12. GRADUATE STUDENTS

Research Project Advisor (as part of the Excellence Program):

- Ziv Keidar
- Shai Amouyal
- Dror Neustatel
- Shai Bakal
- Reut Shapira

14. RESEARCH GRANTS

Competitive

2021–2024 Israel Science Foundation (ISF), Research Grant Application 277/21, *Optimizing service anatomy in queueing networks: The case of acute and post-acute care*. USD\$400,000.

Non-Competitive

2022–2024 Israel National Institute for Health Policy Research, Research Grant Application 2021/160, *Managing Hybrid Hospital Internal Medicine Ward: In-Hospital and Hospital at Home using Telemedicine – Mathematical Modeling, Optimization and Applications*

2022–2024 The Harold and Inge Marcus Endowment for Technion/PSU IE Partnership, *Optimizing Resource Allocation and Staffing to Improve Continuity of Care: A Data-Driven Approach*. USD\$10,000.

15. PUBLICATIONS

15.1 Theses

MSc Thesis ``Analyzing and Modeling Mass Casualty Events in Hospitals –An Operational View via Fluid Models”, Technion, 2012

PhD Thesis ``Time-Varying Fluid Networks with Blocking: Models Supporting Patient Flow Analysis in Hospitals, Technion, 2018

Refereed papers in professional journals

Published papers

1. Cohen, I., and Mandelbaum A., Zychlinski N., Minimizing Mortality in a Mass Casualty Event: Fluid Networks in Support of Modeling and Staffing, 2014, *IIE Transactions* 46(7) 728-741. (Alphabetical order).
2. Zychlinski N., Mandelbaum A. and Momcilovich P., Tandem Queues with Blocking: Modeling, Analysis and Operational Insights via Fluid Models with Reflection, 2018, *Queueing Systems* 89(1), 15-47. (Contribution order).
3. Zychlinski N., Mandelbaum A. and Momcilovich P., Time-varying Multi-Server Tandem Networks: Comparing Blocking Mechanisms via Fluid Models with Reflection, 2018, *Operations Research Letters* 46(5) 492-499. (Contribution order).
4. Zychlinski N., Mandelbaum A. Momcilovich P., and Cohen I., Bed Blocking in Hospitals due to Scarce Capacity in Geriatric Institutions - Cost Minimization via Fluid Models, 2020, *Manufacturing & Service Operations Management* 22(2), 223-428. (Contribution order).
5. Zychlinski N., Chan, C.W, and Dong, J., 2022, Managing Queues with Different Resource Requirement, *Operations Research*, forthcoming <https://doi.org/10.1287/opre.2022.2284>. (Contribution order).
6. Zychlinski N., 2022, Applications of fluid models in service operations management, *Queueing Systems*, 1-25.
7. Zychlinski N., 2023, Managing Queues with Reentrant Customers in Support of Hybrid Healthcare, *Stochastic Systems*, forthcoming.

Submitted papers

8. Zychlinski N., Gurvich I., *The Production of Service: Complementarity and Substitution in Processing Networks*. (Contribution order).
9. Liu N., Wang S., Zychlinski N., *Managing Outpatient Televisits with Strategic Behavior*. (Alphabetical order).

Refereed papers in conference proceedings

10. Zychlinski N., Chan, C.W, and Dong, J., Scheduling Queues with Simultaneous and Heterogeneous Requirements from Multiple Types of Servers, 2020, Proceeding of the 2020 Winter Simulation Conference.

Submitted papers to conference proceedings (students are marked by an asterisk)

1. Neustatel D.* and Schmid T.*, Zychlinski N., Coordination of Hospital Parking and Transportation Services: A Simulation-Based Approach.
2. Amouyal S.*, Zychlinski N., Equity-Driven Management of Essential Environmental Resources Under Price-Based Consumption.

16. CONFERENCES

Invited talks:

1. The 4th European Technology & Operations Management (TOM) day, Paris, France, 2023
2. Cornell ORIE Young Researcher Workshop, Ithaca, NY, USA, 2019.
3. The 2019 INFORMS Annual Meeting, Seattle, Washington, USA, 2019.
4. The 2018 INFORMS Annual Meeting, Phoenix, Arizona, USA, 2018.
5. The Operations Research Conference in memory of Prof. Uriel Rothblum, Israel, 2018.
6. The 2017 INFORMS Annual Meeting, Huston, Texas, USA, 2017.
7. The 10th Young European Queueing Theorists (YEQT) Workshop, EURANDOM, Eindhoven University of Technology, Eindhoven, the Netherlands, 2016.

Contributed Talks

1. The 10th National IEM Research Conference, Tel Aviv University, 2022
2. The 2022 ORSIS Conference, Jerusalem, Israel, 2022
3. The 2022 MSOM Conference, Munich, Germany, 2022
4. The 2019 INFORMS Healthcare Conference, Cambridge, Massachusetts, USA, 2019.
5. The 2021 ORSIS Conference, Technion, Israel, 2021.
6. The 2020 Winter Simulation Conference, Orlando, FL, USA, 2020.
7. The 2018 European Conference of Queueing Theory (ECQT), Israel, 2018.
8. The International POMS Conference, Israel, 2017.
9. The 8th IMA Conference on Quantitative Modelling in the Management of Health and Social Care, England, 2016.
10. The 18th IE&M Conference, Israel, 2014.

Invited Seminars

1. Department of Statistics and Operations Research, Haifa University, 2021
2. Department of Operations Research and Information Engineering, Cornell University, NY, USA, 2019
3. Cornell-Tech, NY, USA, 2019
4. Department of Industrial Engineering and Operations Management, University of California, Berkeley, USA, 2019
5. Kelley School of Business, University of Indiana, Indiana, USA, 2019
6. Department of Industrial Engineering and Manufacturing, Penn State University, State College, PA, USA, 2019.
7. Simon Business School, Rochester University, Rochester, NY, USA, 2019.
8. Stern Business School, NYU, New York, NY, USA, 2019.
9. Columbia Business School, New York, NY, USA, 2018.
10. Yale School of Management, New Haven, Connecticut, USA, 2017.