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Curriculum Vitae

Galit Bracha Yom-Tov
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Academic Degrees

COLUMBIA UNIVERSITY New York, NY, USA
Post-doc at the Department of Industrial Engineering and Operations Research at
the Fu Foundation School of Engineering and Applied Science. 2010–2012

TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
Ph.D. in Operations Research. 2007–2010
Dissertation topic: “Queues in Hospitals: Queueing Networks with ReEntering
Customers in the QED Regime.”

TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
M.Sc. in Industrial Engineering, *Cum Laude*. 2005–2006
Dissertation topic: “A Portfolio Management Approach to Supplier Selection.”

TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
B.Sc. in Industrial Engineering and Management, *Summa Cum Laude*. 1994–1997

Academic Appointments

TECHNION—ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
Assistant professor at the William Davidson Faculty of Industrial Engineering and
Management. 2017–

Lecturer at the William Davidson Faculty of Industrial Engineering and Manage-
ment. 2014–2017

Research Fellow at the William Davidson Faculty of Industrial Engineering and
Management. 2012–2014

COLUMBIA UNIVERSITY New York, NY, USA
Adjunct Professor at the Department of Industrial Engineering and Operations
Research (IEOR), The Fu Foundation School of Engineering and Applied Science.
2012

Professional Experience

PCB TECHNOLOGIES Migdal Haemek, Israel
Information Technology Project Leader. 1999–2004

Worked in the IT group and led a project to implement ERP modules into various departments. Responsible for other production engineering projects.

TAMBOUR Acco, Israel
Production Engineer. 1997–1999

Involved in various projects, including improvement of production systems, assessing the financial viability of investments, and initiation and implementation of IT systems.

DAIMLER-BENZ, R&D CENTER Ulm, Germany
Student Exchange. Summer 1996

EQUIPMENT LTD Haifa, Israel
1994–1997

Student part-time job during studies. Projects in market analysis, pricing, and definition of IT systems.

ISRAEL DEFENSE FORCES Israel
Hebrew Teacher. 1991–1993

Teaching Hebrew to new immigrants from Ethiopia and commanding a teachers course.

Research Interests

Queueing theory with applications to service systems such as hospitals, call centers, and banks. Data analysis of service systems to explore customer and agent operational behavior, such as effects of load. Behavioral operation models of service systems.

Teaching Experience

TECHNION—ISRAEL INSTITUTE OF TECHNOLOGY Haifa, Israel
096324 - Service Engineering (undergraduate core and graduate elective). 2012–2017.

094139 - Supply Chain Management (undergraduate core). Spring 2017.

097120 - Selected Topics in Industrial Engineering (graduate elective). Spring 2016.

097121 - Advanced Topics in Industrial Engineering (graduate elective). Spring 2013. (This course is given as part of a design process of a new graduate course in Healthcare operations for the Technion and NYU. Additional participants in the development of this course are Prof. Avishai Mandelbaum (Technion) and Prof. Mor Armony (NYU).)

COLUMBIA UNIVERSITY New York, NY, USA
IEOR4165 - Service Engineering (undergraduate and graduate elective). Spring 2012. (Design of a new course together with Prof. Ward Whitt.)

IEOR8100 - Topics in OR: Stochastic Models in Service Engineering (advanced doctoral course). Spring 2012.

Teaching Assistant. 2004–2010

Service Engineering (undergraduate, graduate), Probability (undergraduate), Stochastic Processes (graduate), Stochastic Modeling (undergraduate), Logistics (undergraduate), ERP Laboratories (undergraduate).

Departmental Activities

- Organizing the Quantitative Seminar (Joint seminar for IE, OR, IT, Statistics) (joint position with Yuval Emek) (2014–2017)
- Head of organizing committee of Erasmus-Technion Workshop on Healthcare Operations (2014).

Public Professional Activities

- Reviewer: Management Science, Operations Research, Stochastic Systems, Omega, Journal of the Operational Research Society, EJTL (EURO Journal on Transportation and Logistics), MSOM (Manufacturing & Service Operations Management), Naval Research Logistics (2013–).
- Grant Reviewer and Judge: Israel Ministry of Science, Technology and Space (2013).
- Doctoral committee: K.U. Leuven, Belgium (Mieke Defraeye, 2014), Eindhoven University of Technology, Netherlands (Britt W.J. Mathijssen, 2017).
- Ministry of Health committee for determining quality measures for emergency departments in Israel (2015).
- Official member of the European action COST CA15222: “European Network for cost containment and improved quality of health care” (2016–2018).

Membership in Professional Societies

- Institute for Operations Research and Management Science (INFORMS)
- Manufacturing & Service Operations Management (MSOM)
- Applied Probability Society (APS)
- Operations Research Society of Israel (ORSIS)

Awards and Honors

- Second place: INFORMS 2012 JFIG best paper competition (USA)
- Best Paper Award at the 16th IE&M Conference (Tel-Aviv, Israel)
- Prof. Samuel and Lillian Keidan Levin Prize (Technion), 2008
- Technion Excellence Scholarship, 2004
- Best Employee Award, PCB Technologies, 2001

Graduate Students

MSc theses

- Tali Gertz, “How to Utilize Call Backs: Time-Varying Queues with a Call Back Option,” 2/2017.
- Daniel Altman, “Modeling Human Behavioral Reactions to Emotions Expressed by Others: A Non-obtrusive Examination of Customer Service Employees Behavior,” 2/2017 (co-adviser Prof. Anat Rafaeli).
- Shelly Ashtar, “The Impact of Operational Load on Agent Withdrawal Behavior in Service Systems,” 2/2017 (co-adviser Prof. Anat Rafaeli).
- Yueming Xie, “An Invitation Control Policy for Proactive Service Systems: Balancing Efficiency, Value and Service Level,” 4/2017 (co-adviser Prof. Liron Yedidsion).

PhD theses in progress

- Nitzan Carmeli, starting 6/2015, Ph.D. expected 12/2018 (co-adviser Prof. Avi Mandelbaum).
- Raisa Carmen, Ph.D. student at KU Leuven, Belgium (Primary adviser Prof. Inneke Van Nieuwenhuyse), Ph.D. expected 11/2017.
- Daniel Altman, starting 2/2017, Ph.D. expected 7/2020 (co-adviser Prof. Anat Rafaeli).
- Shelly Ashtar, starting 2/2017, Ph.D. expected 7/2020 (co-adviser Prof. Anat Rafaeli).

MSc theses in progress

- Monika Westphal, “Customer Emotional Reactions to Employee Multitasking: The Role of Customer Waiting in Chat-based Service Interactions,” M.Sc. expected 9/2017 (co-adviser Prof. Anat Rafaeli).

Projects Adviser

ME projects

- Anat Bernshtein (2014) “Analyzing Abandonment Effect in Call-Center IVR”.

Undergraduate projects

- Shachar Dagan, Kama Peper, Adam Lev, and Beni Chakak (2013) “Bed Allocation Policy in Hematology Ward,” Rambam Medical Center, Israel. (Co-adviser Dr. Ishay Ofran.) *First place in undergraduate student project competition, Technion, 2012/3.*
- Nitzan Carmeli and Yuval Michael (2013) “Optimizing the Design of IVR Service Systems Design and Analysis”. (Graduate project, SEELab, Technion.)
- Ibrahim Boulos, Rolan Daw, Valentin Harkovsky, and Alon Shamai (2014) “Predicting Customer Cancellation and No-Shows and Building a New Revenue Management System for Flight Capacity Management,” El-Al, Israel. *Rosenfeld prize for innovations in undergraduate student project, Technion, 2014.*

- Yalon Pauker, Dana Chernin, Ohad Goldberg, Maor Efraim (2014) “Coping with Unexpected Load in Help-desk Call Center,” Israel Ministry of Justice.
- Gilad Shponchik, Denis Shvets, Nadav Dishon, Adam Rudman, Nofar Bendit (2015) “Improving Customer Flow in an IDF Recruiting Office,” Israel Defense Forces. *First place in undergraduate student project competition, Technion, 2014/5.*
- Ayala Edrei, Iliya Saparev, Hadar Sharony, Yotam Shimsho, Noga Berenshtein (2015) “Improving Bone Marrow Transplant Matching Process,” Rambam Medical Center, Israel. *Third place in undergraduate student project competition, Technion, 2014/5.*
- Shoval Sharon, Itai Goldstein, Or Netach, Chen Gersh (2016) “Improving Medical Equipment Approval and Distribution Policy,” Ministry of Health, Haifa, Israel.

Grants

- Israel Innovation Authority, Magnetron Program (with LivePerson Ltd.), Grant No. 57948, 1,857,600 NIS (1st year), 2016–2018
- The Israel National Institute for Health Policy and Health Services Research (NIHP), Grant No. 2015/120/r, 153,968 NIS (with Anat Rafaeli, Avi Parush, and Chen Shapira), 2016–2018
- Israel Ministry of Science, Technology and Space (MOST) , Grant No. 2015-6-86 1,081,794 NIS (with Anat Rafaeli and Avi Parush) 2016–2018
- Israel Science Foundation (ISF), Grant No. 1955/15, 570,000 NIS (with Avi Mandelbaum), 2015–2018
- Clalit Health Services. Research grant. 100,000 NIS (with Anat Rafaeli and Avi Parush), 2015
- The Harold and Inge Marcus Endowment for Technion/PSU IE Partnership, 2015
- The Harold and Inge Marcus Endowment for Technion/PSU IE Partnership, 2013
- The Israel National Institute for Health Policy and Health Services Research (NIHP), Scholarship, 2008–2010

Publications Theses

- G. Yom-Tov (2010) “Queues in Hospitals: Queueing Networks with ReEntering Customers in the QED Regime”. Ph.D. Thesis, Technion.
http://iew3.technion.ac.il/serveng/References/galit_PHD_submitted.pdf
- G. Yom-Tov (2006) “Portfolio Management Approach to Supplier Selection”. M.Sc. Thesis, Technion.

Refereed papers in professional journals

- M. Horwitch, H. Grupp, S. Maital, G. Dopelt, G. Sobel (2000) “Global Integration of Marketing and R&D: IBMs Haifa Research Laboratory and its ‘Webcutter’ Technology”. *Getting Better at Sensemaking. A.G. Woodside (Ed.). JAI Press, Stamford, Connecticut, USA.* pp. 203-214.

- G.B. Yom-Tov and A. Mandelbaum (2014) “Erlang-R: A Time-Varying Queue with Reentrant Customers, in Support of Healthcare Staffing,” *MSOM*, Vol. 16, No. 2, Spring, pp. 283–299. **Recipient of the Best Student Paper Award (16th IE&M Conference).**
- C. Chan, G.B. Yom-Tov, and G. Escobar (2014) “When to use Speedup: An Examination of Service Systems with Returns,” *Operations Research*, Vol. 62, No. 2, March-April, pp. 462–482. (DOI: 10.1287/opre.2014.1258) **A previous version of this paper placed second in the INFORMS 2012 JFIG best paper competition under the title “When to use Speedup: An Examination of Intensive Care Units with Readmissions”.**
- J. Dong, P. Feldman, and G.B. Yom-Tov (2015) “Service Systems with Slow-downs: Potential Failures and Proposed Solutions,” *Operations Research*, Vol. 63, No. 2, pp. 305–324. (DOI: 10.1287/opre.2015.1346)
- M. Armony, S. Israelit, A. Mandelbaum, Y.N. Marmor, Y. Tseytlin, and G.B. Yom-Tov (2015) “On Patient Flow in Hospitals: A Data-Based Queueing-Science Perspective,” *Stochastic Systems*, Vol. 5, No. 1, 146–194 (DOI: 10.1214/14-SSY153)

Submitted manuscripts

- C. Chan and G.B. Yom-Tov “Managing Intensive Care Units: Speedup versus Admission Control”. Under revision.
- J. Dong, E. Yom-Tov and G.B. Yom-Tov “The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times”. Under revision to *Management Science*.
- J.S.H. van Leeuwen, B.W.J. Mathijssen, F. Sloothaak and G.B. Yom-Tov “The restricted Erlang-R queue: Finite-size effects in service systems with returning customers”. Under review in *Operations Research*.
- G.B. Yom-Tov, A. Rafaeli, S. Ashtar, D. Altman, M. Westphal, M. Natapov, and N. Barkay “Emotion in Text Based Customer Service: Using Automatic Emotion Detection to Identify Trends and Relationships”. Under review.

Conferences Keynote talks

- “Time Varying Queues in Healthcare Systems”. Discussion for the Markov Lecture given by Prof. Ward Whitt (2010 INFORMS Annual Meeting (Austin, TX, USA)).
- “The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times”. 2016 Stochastic Networks Conference (San Diego, CA, USA).

Conference presentations (invited sessions)

- A. Mandelbaum, G.B. Yom-Tov “The Erlang-R Queue: A Model Supporting Personnel Staffing in Emergency Wards”. *WITOR-09 - The First Turkish and Israeli OR Societies Workshop (Istanbul, Turkey)*.

- M. Armony, A. Mandelbaum, Y.N. Marmor, Y. Tseytlin, G.B. Yom-Tov “Empirical Adventures in Hospitals,” *2010 INFORMS Annual Meeting (Austin, TX, USA)*.
- C. Chan, G.B. Yom-Tov, G. Escobar “Intensive Care Unit Patient Flow with Readmissions: A State-Dependent Queueing Network,” *2011 INFORMS Annual Meeting (Charlotte, NC, USA)*, *2012 INFORMS Annual Meeting - (Phoenix, AZ, USA)*.
- M. Armony, S. Israelit, A. Mandelbaum, Y.N. Marmor, Y. Tseytlin, G.B. Yom-Tov “Queues in Hospitals: Empirical Study,” *2011 INFORMS Annual Meeting (Charlotte, NC, USA)*.
- J. Dong, P. Feldman, and G.B. Yom-Tov. “Slowdown Services: Staffing Service Systems with Load-Dependent Service Rate,” *2013 INFORMS Annual Meeting (Minneapolis, MN, USA)*, *2014 Service SIG MSOM (Seattle, WA, USA)*, *2014 INFORMS Annual Meeting (San Francisco, CA, USA)*.
- G.B. Yom-Tov and C. Chan. “Managing Intensive Care Units: Speedup versus Admission Control”, *2013 INFORMS Annual Meeting (Minneapolis, MN, USA)*, *2014 INFORMS Annual Meeting (San Francisco, CA, USA)*.
- P. Feldman, J. Li, and G.B. Yom-Tov. “Building Personal Connections: An Empirical Analysis of Financial Call Centers”, *2014 INFORMS Annual Meeting (San Francisco, CA, USA)*.
- J. Dong, E. Yom-Tov and G.B. Yom-Tov. “The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times”, *2015 INFORMS Annual Meeting (Philadelphia, PA, USA)*.
- G.B. Yom-Tov, A. Rafaeli, D. Altman, S. Ashtar, M. Westphal, S. Lahav, M. Natapov, N. Tepper “On the Connection Between Customer Emotions and Operations in Services Systems”, *2016 Technion-HKUST workshop*.

Conference presentations (contributed sessions)

- G.B. Yom-Tov, B. Golany (2006) “Portfolio Management Approach to Supplier Selection”. *2006 ORSIS Annual Meeting (Naharia, Israel)*, *2007 14th IE&M Conference (Tel-Aviv, Israel)*.
- A. Mandelbaum, G.B. Yom-Tov “Capacity Management in Hospitals: Semi-Open Queueing Networks in the QED Regime”. *2008 MSOM Annual Meeting (University of Maryland, MD, USA)*, *2008 ORSIS Annual Meeting (Jerusalem, Israel)*.
- A. Mandelbaum, G.B. Yom-Tov “The Erlang-R Queue: A Model Supporting Personnel Staffing in Emergency Wards”. *2009 ORSIS Annual Meeting (Herzeliya, Israel)*.
- A. Mandelbaum, G.B. Yom-Tov “The Erlang-R Queue: Time-Varying QED Queues with Reentrant Customers in Support of Healthcare Staffing,” *2010 MSOM Annual Meeting (Haifa, Israel)*, *The 16th IE&M Conference (Tel-Aviv, Israel)*.

- C. Chan, G.B. Yom-Tov, G. Escobar “Intensive Care Unit Patient Flow with Readmissions: A State-Dependent Queueing Network,” *2011 MSOM Annual Meeting (Ann Arbor, MI, USA)*, *2011 INFORMS Healthcare (Montreal, Canada)*, *2012 MSOM Annual Meeting (New York, NY, USA)*.
- J. Dong, P. Feldman, and G.B. Yom-Tov. “Slowdown Services: Staffing Service Systems with Load-Dependent Service Rate,” *2013 INFORMS Applied Probability Society Conference (San Jose, Costa Rica)*, *2013 MSOM Annual Meeting (INSEAD, France)*.
- G.B. Yom-Tov and C. Chan. “Managing Intensive Care Units: Speedup versus Admission Control”, *2013 MSOM Annual Meeting (INSEAD, France)*, *2014 ORSIS Annual meeting (Tel-Aviv, Israel)*.
- G.B. Yom-Tov and T. Gertz. “How to Utilize Call Backs: Time-Varying Queues with a Call Back Option”, *2014 IE&M Conference (Tel-Aviv, Israel)*.
- J. Dong, E. Yom-Tov and G.B. Yom-Tov. “The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times”. *2015 MSOM Annual Meeting (Toronto, Canada)*, *2015 INFORMS APS Conference (Istanbul, Turkey)*, *2016 IE&M Conference (Tel-Aviv, Israel)*.
- D. Altman, D. Cohen, A. Rafaeli, N. Tepper, G.B. Yom-Tov, S. Ashtar, G. Bar, D. Spivak, M. Westphal, and H. Zucker. “The Influence of Customer Emotions in Chat-Service Operations”. *SERVSIG 2016. Maastricht, The Netherlands*.
- A. Rafaeli, G.B. Yom-Tov, D. Altman, S. Ashtar, and D. Spivak. (2016). “Data-driven Studies of Emotion-Behavior Interplay in C2B2C Written Interactions”. *New York City: Connected eXperiences Labs Second Annual Fall Workshop*.
- Y. Xie, L. Yedidsion, and G.B. Yom-Tov “An Invitation Control Policy for Proactive Service Systems: Balancing Efficiency, Value and Service Level,” *2017 INFORMS Applied Probability Society (APS) Conference (Northwestern, USA)*.
- G.B. Yom-Tov, A. Rafaeli, D. Altman, S. Ashtar, M. Westphal, M. Natapov, N. Tepper “The Influence of Customer Emotions in Chat-service Operations”, *2017 Behavioral Operations Conference (MIT, Boston, USA)*.

Participation in organizing conferences

- Young European Queueing Theorists (YEQT) workshop, Eindhoven, Netherlands, 11/2016. Conference organizing committee.
- POMS International, Israel, 6/2017. Healthcare operations track program chair.

Invited seminars in universities

- “The Erlang-R Queue: Time-Varying QED Queues with Reentrant Customers in Support of Healthcare Staffing”. Penn State University (1/2010), NYU (9/2011).

- “Does Speedup Reduce Congestion? An Examination of Intensive Care Units with Readmissions”. Princeton University (2/2012), Tel-Aviv University (1/2012), Ben-Gurion University (1/2012), Technion (1/2012), Hebrew University (1/2012).
- “Slowdown Services: Staffing Service Systems with Load-Dependent Service Rate”. Tel-Aviv University (3/2013), Haifa University (12/2013), KU Leuven (1/2014), Eindhoven University of Technology (1/2014).
- “Managing Intensive Care Units: Speedup versus Admission Control”. VU Amsterdam (1/2014).
- “The Impact of Delay Announcements on Hospital Network Coordination and Waiting Times”. CUHK (9/2016).
- “On the Connection Between Customer Emotions and Operations in Services Systems”. UCL (5/2017).
- “An Invitation Control Policy for Proactive Service Systems: Balancing Efficiency, Value and Service Level”. Eindhoven University of Technology (5/2017).

Current Research in Progress

- R. Carmen, Y. Ofran, I. van Nieuwenhuysse, and G.B. Yom-Tov “The Impact of Dedicated Resources on Health in a Hematology Ward”.
- R. Carmen, Y. Ofran, I. van Nieuwenhuysse, and G.B. Yom-Tov “Capacity Planning in Hematology Wards: Control for Infection Risks”.
- Y. Xie, L. Yedidsion, and G.B. Yom-Tov “An Invitation Control Policy for Proactive Service Systems: Balancing Efficiency, Value and Service Level”.
- D. Altman, A. Rafaeli, and G.B. Yom-Tov “The Impact of Customer Emotions on Chat Service Operations”.
- S. Ashtar, A. Rafaeli, and G.B. Yom-Tov “The Impact of Operational Load on Agent Withdrawal Behavior in Service Systems”.
- Tali Gurtz and Galit B. Yom-Tov “Utilizing Call Cacks: Time-Varying Queues with a Call Back Option”
- Anat Rafaeli, Monika Westphal, Galit B. Yom-Tov “Customer Reactions to Wait Time Information: The Impact of Information Style on Waiting and Abandonment”.
- M. Armony and G.B. Yom-Tov “Optimizing Hospitalization Policy for Hematology Wards”.