

Curriculum Vitae

Barış Ata

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EDUCATION

Ph.D., Graduate School of Business, Stanford University, California.	2003
M.S., Statistics, Stanford University, California.	2002
M.S., Mathematics, Stanford University, California.	2001
M.S., Business Research, Stanford University, California.	2000
M.S., Engineering Economic Systems & Operations Research, Stanford University, California.	1999
B.S., Industrial Engineering, Bilkent University, Ankara, Turkey.	1997

EMPLOYMENT

Associate Professor (with tenure), Kellogg School of Management, Northwestern University	Dec, 2008-
Founding Director of the Operations Management Ph.D. Program	2007-
Degree courses taught:	
1. <i>Operations Management (MBA core. Average Rating: 8.0/10)</i>	
2. <i>Operations Strategy (MBA elective. Average Rating: 8.5/10)</i>	
3. <i>Spreadsheet Modeling for Man. Decisions (MBA Elective. Avg. Rating: 9.1/10)</i>	
4. <i>Stochastic Calculus & Control (Ph.D. class. Average Rating: 9.4/10)</i>	
5. <i>Topics in Operations Management (Ph.D. class. Average Rating: 9.75/10).</i>	
6. <i>Emerging Areas In Operations Management (To be taught in 2011-2012)</i>	
Faculty Member, NU Transplant Outcomes Research Collaborative (NUTORC)	2009-
Associate Professor (without tenure), Kellogg School of Management, Northwestern University	2007-2008
Assistant Professor, Kellogg School of Management, Northwestern University.	2003- 2007
Associate, McKinsey & Company, Istanbul, Turkey	2001

RESEARCH INTERESTS

- Capacity Management in Manufacturing & Service Operations Management
- (Economics of) Demand Management
- Health Care Management
- Sustainable Operations

AREAS OF EXPERTISE

- Mathematical and Stochastic Modeling
- Dynamic and Stochastic Optimal Control
- Queueing Theory and Applied Probability
- Pricing Strategies and Mechanism Design

RESEARCH ARTICLES

1. Heavy traffic analysis of open processing systems with complete resource pooling: Asymptotic optimality of discrete review policies, *Annals of Applied Probability*, **15**(1A) 331-391, **2005**. With S. Kumar.
2. Drift rate control of a Brownian processing system, *Annals of Applied Probability* **15**(2) 1145-1160, **2005**. With J.M. Harrison and L.A. Shepp.
3. Dynamic power control in a wireless static channel subject to a quality of service constraint, *Operations Research*, **53**(5) 842-851, **2005**.
4. Adaptive training and data power allocation for fading downlink channels with feedback, *Proceedings of IEEE International Symposium on Information Theory (ISIT)*, Seattle, WA, Vol 1-6, pp 168-172, **2006**. With M. Agarwal and M. Honig.
5. Dynamic control of a multiclass queue with thin arrival streams, *Operations Research*, **54**(5) 876-892, **2006**.
6. Dynamic control of an M/M/1 Service System with Adjustable Arrival and Service Rates, *Management Science*, **52**(11) 1778-1791, **2006**. With S. Shneerson.
7. Dynamic Power Control in a fading downlink channel subject to an energy constraint, *Queueing Systems*, **55**(1) 41-69, **2007**. With K. E. Zachariadis.
8. Heavy traffic analysis of maximum pressure policies for stochastic processing networks with multiple bottlenecks, *Queueing Systems*, **59**(3-4) 191-235, **2008**. With W. Lin.
9. The value of partial resource pooling: Should a service network be integrated or product-focused? *Management Science*, **55**(1) 115-131, **2009**. With J. A. Van Mieghem.
10. Dynamic control of a make-to-order parallel-server system with cancellations, *Operations Research*, **57**(1) 94-108, **2009**. With M.A. Rubino.
11. Near-optimal dynamic leadtime quotation and scheduling under convex-concave customer delay costs, *Operations Research*, **57**(3) 753-768, **2009**. With T. Olsen.
12. Bid-price controls for Network Revenue Management: Martingale characterization of optimal bid prices. *Mathematics of Operations Research*, **34**(4) 912-936, **2009**. With M. Akan.
13. Optimizing Liver Allocation Policy. *Hepatology*, **50**(4) 647A-648A, **2009**. With M. Akan, O.Alagoz, F.S. Erenay, A. Said.
14. Asymmetric information and economies-of-scale in service contracting, *Manufacturing and Service Operations Management*, **13**(1) 58-72, **2011**. With M. Akan and M.A. Lariviere.
15. Congestion-based leadtime quotation for heterogeneous customers with convex-concave delay costs: Optimality of a cost-balancing policy based on convex hull functions. *In press, Operations Research*. With M. Akan and T. Olsen.
16. A broader view of the liver allocation system incorporating disease evolution. *In press, Operations Research*. With M. Akan, O.Alagoz, F.S. Erenay, A. Said.
17. On Optimality Gaps of Asymptotically Optimal Policies in the Many-Server Heavy-Traffic Regime. *In press, Annals of Applied Probability*. With I. Gurvich.
18. Optimizing Organic Waste to Energy Operations. *In press, Manufacturing and Service Operations Management*. With D. Lee and M.H. Tongarlak.
19. Adaptive training for correlated fading channels with feedback. *Conditionally Accepted. IEEE Transactions on Information Theory*. With M. Agarwal and M. Honig.
20. Congestion-based leadtime quotation and pricing for revenue maximization with heterogeneous customers. *Minor revision, Queueing Systems*. With T. Olsen.
21. On Hospice Operations under Medicare Reimbursement Policies. *Minor revision, Management Science*. With B.L. Killaly, T.L. Olsen, R. Parker.

22. Revenue management by sequential screening. *Under 2nd round of review at Review of Economic Studies*. With M. Akan and J. Dana.
23. Structural Estimation of Callers' Delay Sensitivity in Call Centers. *Under revision for 2nd round of review at Management Science*. With Z. Aksin-Karaesmen, S. Emadi, C. Su.
24. Revenue Management in Queueing Systems with Unknown Demand Characteristics. *Under revision for 2nd round of review at M&SOM*. With P. Afeche.
25. On bid-price controls for network revenue management. *Under revision for 2nd round of review at Transportation Science*. With M. Akan.
26. Dynamic Pricing of Remanufacturable Products Under Demand Substitution: A Product Life Cycle Model. *Under revision for 2nd round of review at Operations Research*. With M. Akan and R.C. Savaskan.
27. OrganJet: Overcoming geographical disparities in access to deceased donor kidneys in the United States. *Working Paper*. With A. Skaro and S. Tayur.
28. On scheduling a multiclass queue with abandonments under nonlinear delay costs. *Working Paper. (Invited for submission to Queueing Systems)*. With M.H. Tongarlak.
29. Got Local Food? Understanding the Fresh-Food Supply Chain. *Working Paper*. With D. Lee and M.H. Tongarlak.
30. A Characterization of Optimal Bid Prices Under Consumer Choice. *Working Paper*.
31. Note: Do you really want to know? The role of commitment and forecast updating in advance selling to forward-looking consumers. *Working Paper*. With J. Dana.

WORK IN PROGRESS

32. On the Value of Vehicle-to-Grid Electricity. With A. El-Gamal, E. Hart, E. Plambeck, and H. Su.
33. Demand Estimation and Optimal Pricing of Remanufactured Products. With D. Guide, C. Savaskan and M.H Tongarlak.
34. Structural Estimation of Callers' Delay Sensitivity in Call Centers Under Delay Announcements. With Z. Aksin-Karaesmen, C. Su.
35. Estimating the impact of policy changes in the kidney allocation system under endogenous patient choice behavior. With G. Hitsch, C. Su, and W. Williford.
36. On the technology adoption of cardiologists: An empirical investigation. With KC. Diwas and C. Su.
37. On the optimal technology adoption under competition: The impact of debt markets and firm's capital structure.
38. Asymptotically optimal controls for stochastic networks: The case of pathwise optimality. With W. Lin
39. Dynamic Scheduling of a Fork-Join Processing Network. With X. Peng and I. Gurvich.
40. On the impact of patient portfolio on the surgeons/transplant centers' response to organ offers.
41. On the unintended consequences of risk-adjusted evaluation of Transplant centers.
42. What drives the geographical differences in deceased donor organ harvesting in the US?

OTHER PUBLICATIONS

- Dynamic Control of Stochastic Networks, Ph.D. Dissertation, Graduate School of Business, Stanford University, 2003.
- Harvest: Organic Waste Recycling with Energy Recovery (A). Harvard Business School Case 611-033. With D. Lee and M.H. Tongarlak.
- Harvest: Organic Waste Recycling with Energy Recovery (B). Harvard Business School Case 611-034. With D. Lee and M.H. Tongarlak.
- “J. Michael Harrison”. Invited Laudation. *Production and Operations Management*, 20(4) x-xi, 2011.

SERVICE TO THE PROFESSION

Editorial Positions: Area Editor for *Surveys in Operations Management and Management Science*

Associate Editor of *Management Science*, *Operations Research*, *Manufacturing and Service Operations Management*, and *IIE Transactions in Healthcare Engineering*

Ad hoc reviewer for *M&SOM*, *Management Science*, *Operations Research*, *Stochastic Systems*, *Transportation Science*, *Math of OR*, *Annals of Applied Probability*, *Prob. in the Eng. and Inf. Sci.*, *IEEE Transactions on Automatic Control*, *IEEE Transactions on Information Theory*, *SIAM Journal on Control and Optimization*.

Invited Speaker: 2012: Stanford

2011: Cornell, USC, U of Chicago, Wharton

2010: CMU, NYU, UNC, Columbia, Duke, Delta Airlines

2009: UCSD, U of Chicago, U of Minnesota, UIUC, U of Michigan, NUTORC

2008: NYU, MIT, Stanford, UCSD, UT Austin, Georgia Tech, Northwest Airlines

2007: Georgia Tech, Stanford, MIT, U of Toronto

2006: Columbia, Wharton, USC

Earlier at various universities, including Stanford, Northwestern, MIT, NYU, Columbia, U of Michigan, U of North Carolina, U of British Columbia, Bilkent, Sabanci University. At all recent INFORMS national meetings, and at various subdivision meetings including Applied Probability, M&SOM, Revenue Management Conferences.

Committees:	Organizing Committee Member of 2012 INFORMS Annual Meeting	current
	Co-chair of the 2012 Healthcare Operations Management Special Interest Group (SIG) Conference (as part of the 2012 MSOM Conference)	current
	Co-chair of the 2015 INFORMS Applied Probability Conference	current
	Scientific Registry of Transplant Recipients (SRTR) Technical Advisory Committee	2011-
	Judge for the M&SOM best published paper competition	2011
	Judge for JFIG Paper Competition of INFORMS	2010, 2011
	Judge for Nicholson Student Paper Competition of INFORMS	2010
	Council Member of the Applied Probability Society of INFORMS	2008-2010
	Co-chair of the INFORMS Revenue Management Conference	2009
	INFORMS Applied Probability Conference Organizing Committee Member	2009, 2011
	Cluster Chair for Applied Probability (26 Sessions), Annual INFORMS Conference	2008
	Cluster Chair for Revenue Management (25 Sessions), Annual INFORMS Conference	2006
	M&SOM Conference Organizing Committee Member	2005

Invited Session Chair at various conferences including Applied Probability Conferences, Revenue Management Conferences, M&SOM Conferences and Annual INFORMS Meetings.

SERVICE TO THE UNIVERSITY

- Founding Director of the Operations Management (OM) Ph.D. Program 2007-
 1. Founded the OM Ph.D. Program (2007)
 2. Designed the OM Ph.D. program and the curriculum (2007)
 3. Handled Ph.D. Admissions (since 2003)
 4. Offered an ad-hoc mathematics course for incoming Ph.D. students over the summer on basic analysis concepts such as metric spaces, measure theory etc. (Summer 2004, 2007)
 5. Faculty advisor of all OM Ph.D. students during their first two years (since 2004)
- Seminar Organizer (2004, 2005, 2008)
- Kellogg Operations Workshop Organizing Committee Member (since 2004)
- Majors presentation to MBA students (2004, 2006),
- Faculty mentor of assistant professor Itay Gurvich

STUDENT SUPERVISION

- Co-advisor of Konstantinos Zachariadis (2008). "Efficiency of Financial Markets with Sophisticated, Symmetrically-Informed Traders". Now Assistant Professor in the Finance Department of London School of Economics.
- Principal Advisor of Mustafa Akan (2008). "Essays in Revenue Management". Now Assistant Professor at Tepper School of Business, Carnegie-Mellon University.
- Mustafa Tongarlak (current postdoc)
- Seyed Emadi (4th year)
- William Williford (2nd year)
- Xioashan Peng (2nd year)

HONORS/AWARDS

- Received the best paper in service science award from INFORMS, 2009.
- Supervised thesis of Mustafa Akan who received the Best Dissertation on Aviation Applications Award (2008), and honorable mentions in M&SOM (2008) and in Nicholson (2006) student paper competitions
- Operations Research Meritorious Service Award, 2003.
- Jaedicke Merit Scholar Award, GSB, Stanford University, 1998-2000 (received twice for outstanding performance at Stanford University Graduate School of Business Ph.D. Program)
- Ranked 10th in the University Entrance Examination in Turkey, 1992.
- Ranked 2nd in the National Mathematics competition among middle school students in Turkey, 1989.

RESEARCH GRANTS

Motorola research grant, (\$90,000), 2004-2007

"Stochastic Models of Downlink Scheduling in Wireless Communication"

PERSONAL

US Citizen. Married.