

Curriculum Vita
Georgia Perakis
William F. Pounds Professor of Operations Management and Operations Research/Statistics
January 2014
MIT Sloan School of Management

Personal:

Date of Birth: March 9, 1966

Department: MIT Sloan, Operations Management Group and Operations Research/Statistics Group

Place of Birth: Greece

Citizenship: US

Telephone: 617-253-8277 **e-mail:** georgiap@mit.edu

I. Education:

- University of Athens, B.S. in Mathematics, 1987
- Brown University, M.S. in Applied Mathematics, 1988
- Brown University, Ph.D in Applied Mathematics, 1993

II. Title of Doctoral Thesis:

“Geometric, interior point and classical methods for solving finite dimensional variational inequality problems”, (thesis advisor: Thomas L. Magnanti).

III. Principal Research Interests:

Pricing, Revenue Management, Inventory Control and Supply Chains:

- Dynamic Pricing, Revenue Management and Inventory Management in monopolistic as well as competitive settings.
- Contract Theory and Coordination in Competitive Supply Chains

Energy

- Electricity markets
- Adoption of new technologies

Transportation:

- Dynamic and Static Traffic Assignment Problems. Route Guidance, Air Traffic Control and Management.

Loss of Efficiency (Price of Anarchy):

- In Transportation, Oligopolistic Pricing and Revenue Management, Competitive Supply Chains, Airport Systems.

Mathematical Programming:

- Robust and Data Driven Optimization in Transportation, Pricing, Revenue Management, Supply Chains and Air Traffic Management.
- Variational Inequality Problems, Fixed Point Problems, Equilibrium Problems, Nonlinear Optimization.
- Applications of Static and Dynamic Optimization in Transportation, Pricing, Revenue Management, Supply Chains and Air Traffic Management.

IV. Name and Rank of Other MIT Sloan Faculty in the Same Field:

Itai Ashlagi	Assistant Professor
Arnie Barnett	Professor
Dimitris Bertsimas	Professor
Gabriel Bitran	Professor
Vivek Farias	Assistant Professor
Charlie Fine	Professor
Robert Freund	Professor
David Gamarnik	Associate Professor
Steve Graves	Professor
Retsef Levi	Associate Professor
James Orlin	Professor
Cynthia Rudin	Assistant Professor
Andreas Schulz	Professor
Juan Pablo Vielma	Assistant Professor
Roy Welsch	Professor
Tauhid Zaman	Assistant Professor
Karen Zheng	Assistant Professor

V. Non-MIT Appointments:

- Visiting Assistant Professor, Applied Math Department, Brown University, 1993 – 1995
- Visiting Associate Professor, Columbia University, Spring 2006, Sabbatical leave from MIT 2005-2006.

VI. History of MIT Appointments:

- William F. Pounds Professor of Management Science, MIT Sloan School of Management, September 2009-present.
- Professor of Operations Research, MIT Sloan School of Management, July 2009-September 2009.
- Associate Professor of Operations Research, Sloan School of Management, MIT, July 2006-June 2009.
- J. Spencer Standish Career Development Associate Professor, MIT Sloan School of Management, July 2004-September 2006.
- Sloan Career Development Associate Professor, MIT Sloan School of Management, September 2002-September 2004.
- Associate Professor, MIT Sloan School of Management, July 2002-September 2002.
- Assistant Professor, MIT Sloan School of Management, July 1998-July 2002.
- Postdoctoral Associate, O.R.C, MIT, 1995-June 1998.

VII. Distinctions and Awards

- **William F. Pounds Chair** (September 2009 -present).
- **Finalists with LGO Program at the UPS George Smith Prize**, *INFORMS* Practice Conference, San Antonio Texas, Spring 2013.
- **Samuel M. Seegal Award 2012**, for inspiring students for achieving excellence.
- **First Prize** in the *2012 Best Paper Award of the INFORMS Service Science Section*, for the paper entitled “Business Analytics for Flexible Resource Allocation under Random Emergencies” co-

authored with her PhD student Joline Uichanco and LGO student Sid Balwani and industry collaborators.

- **Second Prize** in the *2011 Best Paper Award of the INFORMS Service Science Section*, for the paper entitled “Congestion Pricing for Service Industries” co-authored with her PhD student Wei Sun.
- **Honorable Mention** in the *2007 Best Paper Award of the Transportation Science & Logistics Society of INFORMS*, for her paper co-authored with her former PhD student (currently on the faculty at the Anderson School of Business in UCLA), entitled: "An Analytical Model for Traffic Delays and the Dynamic User Equilibrium Problem", *Operations Research*, 54(6): 1151-1171. November-December 2006.
- **Plenary Speaker** for the **MOPTA Conference** (*Modeling and Optimization: Theory and Applications*, annual international conference in Optimization held in Canada), held this year at University of Guelph, Ontario Canada, August 2008.
- **Sloan Career Development Chair** (July 2002-July 2004) and **J. Spencer Standish Chair** (July 2004-June 2007).
- **PECASE Award**, (Presidential Early Career Award) awarded by the office of the President of the United States on Science and Technology and the **CAREER Award**, NSF. Period 2000-2005.
- **Graduate Student Council Teaching Award**, May 2002, given each year to one professor from each school at MIT, for excellence in teaching a graduate level course.
- **Eight NSF awards**, periods 1993-1996, 1996-1999, 2000-2005, 2006-2009, 2007-2011, 2008-2011, 2008-2011, 2012-2015 (see also Project Experience-Grants Section).
- **MITEI Seed Fund**, MIT Energy Initiative Seed Fund and fellowship to one of my PhD students for this research, 2011-2013
- **Charles Reed Faculty Initiative Award**, 2000-2001 (awarded for innovative research by the Institute).
- **UTRC Award** from the New York University Transportation Research Consortium and DOT, 2005-2006 and
- **UTC Award** from the New England University Transportation Research Consortium, 2000-2001.
- **eBusiness Vision Fund Award**, 2000-2001 (through the E-Business Center).
- **Annual Prize in Mathematics** in memory of Stella Dafermos, Brown University, 1991.
- **Applied Mathematics Fellowship**, Brown University 1987-1988.
- **Fellowship** from the **Greek National Science Foundation** for undergraduate students, 1984.
- **Third Prize** in the **Greek National Mathematical Olympiad** for high school students, 1983.
- **Third Prize** in the **Greek National Mathematical Olympiad** for high school students, 1982.

VIII. Project Experience – Grants:

1. Research grant from British satellite company: Inmarsat (Summer 2013-Spring 2015): research on pricing for satellite services (~140K).
2. Research grant from the Accenture-MIT Alliance (Fall 2013-Summer 2014) on the impact of social media to pricing (~100K)
3. Seed Funding from the MITEI (MIT Energy Initiative) 2011-2013 (also one of my PhD students Maxime Cohen, working in this project, received a fellowship from MITEI and is a Shell Fellow).
4. Research grant from Oracle (Jan 2012- May 2014). This has been a successful so far collaboration on research with the Oracle Retail Science group on relevant research problems on pricing (~140K)
5. Research grant from Nationalgrid (Sept 2012 – Aug 2013). This project has the goal to understand and predict how storms like Irene will impact utilities (like Nationalgrid) in the northeast and what type of emergencies crews and other preparations they could do in advance as the storm approaches (~75K).
6. Principal Investigator in NSF Award “Tractable Markdown Optimization for an E-Tailer”, 2012-2015, 1162034 ~CMMI (~235K)
7. Principal Investigator in NSF Award on “Price of Anarchy and Applications”, 2008-2011, 0758061 -CMMI (~260K).

8. Principle Investigator in NSF Award on “Alleviating Travel Delay Uncertainties in Traffic Assignment and Traffic Equilibrium”, 2008-2011, 0824674-CMMI (~315K).
9. Co-Principle Investigator, together with C. Barnhart, D. Bertsimas, A. Odoni and C. Caramanis, EFRI, (~\$2M), National Science Foundation, “The National Air-Transportation System as a Re-configurable Engineered System”.
10. Co-Principal Investigator in NSF Award on “Robust Optimization and Applications”, 2006-2009 0556106-CMMI (~450K).
11. Principal Investigator PECASE Award 9984339-DMI and Career Award-NSF, 2000-2005 (~500K).
12. Co-principal investigator, NSF grant 9312971-DDM, for the period 1993-1996 on “Complexity Theory for Variational Inequalities and Mathematical Programs”, (~300K).
13. Co-principal investigator, NSF grant 9634736-DMI, for the period 1996-1999 on “Computing Equilibria: Averaging Methods for Fixed Points and Variational Inequalities”, (~300K).
14. IPU grant with R. Levi from MIT-Singapore Alliance Program II, 2005-2010 (~160K per academic year).
15. Principal Investigator in University Transportation Research (UTC and UTRC) Awards, 2000-2001, 2005-2006, (~50K, ~25K).
16. Principal Investigator in Charles Reed Faculty Initiative Fund Award, 2000-2002, (~50K).
17. Co-principal investigator e-Business Vision Fund Award, 2001 (through the E-Business Center), (~75K).
18. Participation as a Faculty Associate at the MIT-Singapore Alliance Program, 1999-2004.
19. Participation with Draper Labs in a Project on Autonomous Vehicles and Path Planning, 1998-2000.
20. Participated at a project for the European Community on Air Traffic Flow Management, 1996.

IX. Subjects Taught

- Spring 2013, two sections of the course 15.730, “Data, Models and Decisions”, for the Executive MBA program at the Sloan School of Management, MIT.
- Spring 2012 I co-taught with R. Freund the course 15.730, “Data, Models and Decisions”, for the Executive MBA program at the Sloan School of Management, MIT.
- Fall 2011, Fall 2010, Fall 2009, 2008, 2006, Fall 2004, Fall 2003, Fall 2001, Fall 2000, Fall 1999, Fall 1998 (taught two sections each semester), 15.060, “Data, Models and Decisions”, Sloan School of Management, MIT (lead faculty for the Fall 2001, Fall 2003, Fall 2006, Fall 2008).
- Fall 2011, Fall 2010 – Ethics Module during SIP period.
- Spring 2010, Spring 2008, Spring 2002, Spring 2000, 15.084J/6.252J, “Nonlinear Programming”, Sloan School of Management, MIT.
- Spring 2009, 15.099, “Readings in Optimization – Applications of Operations Research in Electricity Markets”.
- Fall 2007, 15.081, “Introduction to Mathematical Programming”.
- Spring 2005, Spring 2004, Spring 2003, 15.071, “Decision Technologies for Managers” (co-taught with A. Barnett).
- Fall 2003, Fall 2001, Fall 2000, co-taught with D. Bertsimas, 15.093, “Optimization Methods”, Sloan School of Management, MIT (distant education class, also part of the Singapore-MIT-Alliance program).
- Spring 2003, 15.094, “Systems Optimization”, gave several guest lectures, (distant education class, also part of the Singapore-MIT-Alliance program), (R. Freund primary instructor).
- Fall 2007, 15.099, “Readings in Optimization – Game Theory in Operations”.
- Fall 2006, 15.099, “Readings in Optimization –Pricing and Revenue Management”.
- Spring 2005, 15.099, “Readings in Optimization –Price of Anarchy and Applications”.
- Spring 2003, 15.099, “Readings in Optimization – Robust Optimization and Applications”.
- Spring 2002, 15.098, "Special Seminar in Applied Probability; Online Auctions", (with D. Bertsimas and J. Gallien).

- Spring 2001, 15.099, “Readings in Optimization – Applications of Optimization in Problems of Dynamic Nature”, Sloan School of Management, MIT.
- Spring 2000, 15.099, “Readings in Optimization – Revenue Management”, Sloan School of Management, MIT.

X. MIT Activities:

1. Leaders for Global Operations Program (LGO), Faculty Co-director, July 2010-present.
2. Head of the Operations Management Group, MIT Sloan July 2011-present.
3. Co-Chair with David Simchi-Levi of Search Committee for the new Executive Director of LGO (Don Rosenfield’s replacement), Fall 2013.
4. Member of MIT Innovation Committee, Nov-Dec 2013.
5. Representative member on the Institute CON Committee (Institute Committee on Nominations), 2012-2013, 2014-2015 (due to Sabbatical in 2013-2014).
6. Committee for awarding the Edgerton prize to a junior faculty at the Institute, Spring 2008, Spring 2012.
7. Chair of committee for consideration of Professor J. Santos as Professor of Practice at the GEM group at MIT Sloan, Spring-Fall 2012.
8. Committee member to review the reappointment of Elena Obukhova as Assistant Professor, Spring 2009 and Spring 2011, Spring 2012.
9. Committee member to review the reappointment of Juanjuan Zhang as Assistant Professor, Spring 2008, Spring 2010, committee for promotion to Associate Professor without tenure, Fall 2010, committee for tenure case, 2012-2013.
10. Committee member for adjunct professor case of Zeynep Ton, Spring 2012.
11. Mentor to junior faculty in the Operations Management Group; Karen Zheng, Fall 2011-present.
12. Chair of Search Committee for hiring in Operations Management at MIT Sloan, 2011-2012.
13. Chair of Search Committee for hiring in Operations Research and Statistics at MIT Sloan, 2010-2011.
14. Search Committee for Assistant Professor in Operations Research and Statistics, MS Area, 2011-2012.
15. Search Committee for Assistant Professor in Operations Management, MS Area, 2010-2011.
16. Head of the Operations Research and Statistics Group, MIT Sloan, July 2010-2011.
17. Executive Personnel Committee, MIT Sloan, 2009-2010, 2011-2012, 2012-2013.
18. MIT Sloan Core Review Committee, 2010-2011.
19. MIT Task Force appointed by the Provost, 2010-2011.
20. Co-Chair (with D. Berechman) of Committee on Values Committee 2006-August 2010.
21. Member of Faculty Committee on Values, 2010-2011.
22. Sloan PhD Committee Member, Spring 2010.
23. Gender Equity Committee, 2007-present.
24. Associate Director for LGO and SDM programs 2009-2010.
25. OR/Statistics group co-head (with A. Schulz), Management Science Area, July 2008-July 2009.
26. Chair of Committee on Reviewing the Operations Research Center PhD Program, Fall 2008- Spring 2009.
27. Chair of Committee for the Operations Management Track for the Operations Research Center, Fall 2009.
28. Search Committee for Assistant Professor in Operations Management, MS Area, 2009-2010.
29. Search Committee co-chair (with A. Schulz) for Assistant Professor in Statistics, MS Area, 2008-2009.
30. Search Committee for a faculty position in Transportation across the Institute, Spring 2009.
31. Search Committee for Assistant Professor in Operations Management, MS Area, 2006-2007.
32. Search Committee for Assistant Professor in Accounting, EFA Area, 2006-2007.
33. Search committee for a faculty position in Computational Engineering at the Institute, Spring 2004.
34. Committee member to review the reappointment of Michelle Hanlon, Outside Appointment Target of Opportunity as Associate Professor with tenure, Spring 2009.

35. Committee member for promotion of Michelle Hanlon from Associate to Full Professor at MIT Sloan, Fall 2011.
36. Committee to review the reappointment of Jeremie Gallien as Associate Professor without tenure, Spring 2008.
37. Committee member to review the reappointment of Mark Mortensen as Assistant Professor, Spring 2007.
38. Committee member to review Diane Burton for reappointment as Assistant Professor, Spring 2002.
39. Institute Committee on Operations Research, June 1998-Fall 2001.
40. Five times member of the committee for awarding the *Merit Scholarship Awards* to the second year MBA classes of Spring 2000-Spring 2004.
41. Five times Faculty Advisor for a cohort (~55 students) of the incoming MBA class, Fall 2000, Fall 2001, Fall 2003, Fall 2004, Fall 2006.
42. Admissions committee for the PhD program at the Operations Research Center, 2003-2004, 2007-2010.
43. Admissions committee for the masters program CDO, Spring 2009.
44. INFORMS MIT Student Chapter Faculty Advisor Summer 1998-Summer 2001.
45. Faculty Advisor for the *Operations Research Center IAP Activities*, IAP 2000.
46. Faculty Advisor for organizing the *Operations Research Seminar Series*, Fall 2001, Spring 2002, Fall 2004, Spring 2005, Fall 2006, Spring 2007, Fall 2011, Fall 2012.
47. Coordinator of Qualifying Examination on Mathematical Programming for the *Operations Research Center*, 1998 - 1999, 2000 – 2001, 2010-2011.
48. Member of the *Operations Research Center*.
49. Faculty Associate at the *Singapore-MIT Alliance Program* 1998-2010.
50. Member of the *CDO Program*.
51. Served on several Thesis Committees of Doctoral Candidates and General Examination Committees at the Operations Research Center, the Sloan School as well as the School of Engineering.

XI. Professional Activities:

1. Member of the INFORMS Council 2003.
2. Chair of the Revenue Management and Pricing Section of INFORMS, 2001-2003.
3. Member of the Board of the Revenue Management and Pricing Section of INFORMS, 2003-2005.
4. Vice President of Communications and Meetings for the INFORMS MSOM Society, 2009-2010.
5. Chair for the *TSL Best Dissertation Award*, for the INFORMS TSL Society, 2009.
6. Chair for the *George Nicholson* competition for Best Student Paper in Operations Research and Management Science by INFORMS, 2008.
7. Member of committee for selection of editor in chief of the MSOM journal (Fall 2009).
8. America's Editor in Chief (with Ian Yeoman) for the journal *Revenue Management and Pricing*, Fall 2003-2010.
9. Area Editor in the area of Supply Chain Management and Services for the journal *Networks and Spatial Economics*, summer 2003-2010.
10. Senior Editor for the *Journal of Flexible Services and Manufacturing*, 2006-2010.
11. Area Editor in Pricing and Revenue Management for *Encyclopedia in Operations Research*, 2008-2011
12. Associate Editor for the journal *Operations Research*, January 2006-present.
13. Associate Editor for the journal *Naval Logistics Research*, 2003-present.
14. Associate Editor for the journal *POM (Production and Operations Management)*, 2009-present.
15. Associate Editor for the journal *Management Science*, 2008-present.
16. Associate Editor for the journal *Management Science*, 1998-2003.
17. Associate Editor for the Special Issue of the journal *Management Science* on Online Auctions, 2003.
18. Guest Associate Editor for the journal *Operations Research*, 2005-2006.
19. Editorial Board for the journal *MSOM*, 2004-2005.
20. Advisory Editorial Board of the journal *Transportation Research B*, 2004-2007.

21. Advisory Editorial Board of the journal *Transportation Research C*, 2005-present.
22. Committee to select the editor in chief of journal *MSOM*, Fall 2008.
23. Committee to evaluate the *MSOM conference* format, Summer 2008.
24. Judge for the 2008 and 2010 *MSOM conferences*.
25. Judge for the 2004, 2006, 2007, 2008, 2010 *MSOM* Best Student Paper Competition.
26. Judge for the *Nicholson* INFORMS competition for Best Student Paper, 2007.
27. Judge for the *TSL* INFORMS Section, Best Dissertation Award, 2007, 2008.
28. Judge for the *JFIG (Junior Faculty Interest Group)* INFORMS Section, Best Paper Award, 2007, 2011.
29. Co-organizer of the INFORMS *Revenue Management and Pricing Conference*, at Columbia University, June 2003, June 2006, and at Sloan, MIT, June 2004, June 2005.
30. Organizing committee of the INFORMS *Revenue Management and Pricing Conference*, Barcelona, June 2007, Montreal, June 2008.
31. Main Organizer of the *MSOM* conference at MIT Sloan School, June 2009.
32. Organizing Committee *MSOM* conference, Technion Israel June 2010.
33. Co-organizer with D. Simchi-Levi of “*The Second MIT Symposium in Operations Research: “Procurement and Pricing Strategies to improve Supply Chain Performance”* May 30, Sloan School, MIT, 2003.
34. Co-chair with Xin Chen of the Cluster on *Logistics and Transportation, ISMP Conference*, Chicago 2009.
35. Co-chair with Marco Luebbecke of the Cluster on *Logistics and Transportation, ISMP Conference*, Berlin, Germany, August 2012.
36. Organizer of the Invited and Sponsored Clusters in “Revenue Management – Pricing”, for the INFORMS conference in Spring 2000, Fall 2001, Fall 2006 and Fall 2007.
37. Organizer and chair of sessions in Revenue Management, Pricing, Transportation, Optimization and Supply Chain, at Conferences such as INFORMS, EURO-INFORMS, IFORS, CORS- INFORMS, ISMP Conferences, IEEE Conference on Intelligent Transportation Systems, TRISTAN.
38. Served several times as a panelist for the NSF Operations Research, Service Enterprise, and Production Systems Programs.
39. Reviewer for NSF proposals in Mathematical Sciences, Operations Research, Service Enterprise.
40. Reviewer for journals such as *Management Science*, *Operations Research*, *Mathematics of Operations Research*, *Mathematical Programming*, *JOTA*, *Networks*, *Transportation Science*, *Transportation Research B and C*.

XII. Professional Society Membership

American Mathematical Society (AMS)
Institute for Operations Research and Management Science (INFORMS)
Mathematical Programming Society (MPS)
Society of Industrial and Applied Mathematics (SIAM)
INFORMS Pricing and Revenue Management Section
INFORMS MSOM
INFORMS Transportation and Logistics Section (TSL)
INFORMS Optimization Section
INFORMS Women in Operations Research and Management Science Section (WORMS).

XIII. Thesis Supervision

Graduated Ph.D. Students:

- Elaine Chew, PhD, Graduated January 2000, (co-advisor Jeanne Bamberger) (research on: Operations Research Models for Music Tonality). Tenured Associate Professor. University of Southern California, Daniel J. Epstein Department of Industrial and Systems Engineering.

- Soulaymane Kachani, PhD, Graduated June 2002 (research on: Dynamic Models in Transportation as well as Dynamic Pricing). Professor of Practice Department of Industrial Engineering and Operations Research, Vice Dean in the School of Engineering, Columbia University.
- Jeff Hawkins, PhD, Graduated June 2003 (co-advisor D. Bertsimas) (research on: Internet Auctions). Consultant for Resource Planning Options Ltd. Canada.
- Anshul Sood, PhD, Graduated June 2004 (research on: Pricing and Revenue Management under Competition). Lehman Brothers and currently at Tower Hedge Fund, New York.
- Marina Zaretsky, PhD, Graduated July 2004 (research on: Variational Inequalities and Competitive Supply Chain Management), Associate for Morgan Stanley.
- Michele Aghassi, PhD, Graduated August 2005 (co-advisor D. Bertsimas) (research on: Variational Inequalities and Robust Network Design). AQR Capital.
- Elodie Adida, PhD, Graduated May 2006 (research on dynamic pricing and fluid models). Assistant Professor in University of Illinois at Chicago, Department of Industrial Engineering.
- Guillaume Roels, PhD, Graduated May 2006 (research in transportation and supply chain management), Assistant Professor in the Anderson School at UCLA, Operations Management group.
- Carine Simon, PhD, Graduated August 2007 (research on competitive dynamic pricing with demand learning), Lincoln Vale LLC (Alternative Investment firm in Lincoln, MA), Associate in Risk Management.
- Jonathan Kluberg, PhD Graduated May 2011 (research on price of anarchy and the effects of deregulation in electricity markets), (Investment Analyst at HighVista Strategies).
- Ruben Lobel, PhD, Graduated March 2012 (research on dynamic pricing and solar panel technology applications) (Professor at Wharton Business School).
- Wei Sun, PhD, graduated August 2012 (research on congestion pricing as well as contracts in supply chains) (Research Staff at IBM Research, Watson).
- Philip Keller (co-advisor R. Levi), PhD, graduated May 2013 (research on choice demand modeling in pricing) (Research Staff at Google, Calinifornia).
- Joline Ann Villaranda Uichanco (co-advisor R. Levi), PhD, graduated August 2013 (research on the data-driven newsvendor problem) (currently Postdoctoral Associate at IBM Research in Watson, starting as Assistant Professor at Business School, University of Michigan, Fall 2014).
- Mattheu Monsch (co-advisor V. Farias), PhD, graduated August 2013 (research on dynamic games and revenue management) (LinkedIn)

Graduated S.M. Students:

- Scott McKeever, Masters, Graduated, May 2000 (research on: Autonomous Vehicles and Path Planning).
- Marc Coumeri, Masters, Graduated, (co-advisor D. Bertsimas) Summer 2000 (research on: Pricing and Revenue Management).
- Lin Guochun, Masters, SMA Program, Graduated, May 2002 (research on: Dynamic Traffic Equilibrium).
- Michael Yee, Masters, Graduated August 2003 (research on: Network Equilibrium Problems in Static and Dynamic Environments).
- Phan Tien Dung, Masters, Graduated, (co-advisor J. Sun), Summer 2004 (research on: Quadratically Constrained Convex Quadratic Programs).
- Wei Sun, Masters, Graduated Summer 2006, CDO program, (research on Price of Anarchy for Bertrand Oligopolies).
- Kevin Zhang, Masters, Graduated Summer 2006, CDO program, (research on Pricing with Adjustable Robust Optimization).

- Joline Ann Villaranda Uichanco, (co-advisor R. Levi), August 2007, CDO program. Graduation August 2007 (research on a data driven approach for the newsvendor and the price-setting newsvendor problem).
- Yun Lu, MS student, (co-advisor D. Bertsimas), CDO program. August 2007 (research on robust network design).
- Tingting Rao, (co-advisor R. Levi), CDO program. Graduation August 2008 (research on the multi-period joint dynamic pricing and inventory control problem for many products with joint capacities).
- Thibault Le Guen, ORC, Masters. Graduation August 2008 (research on data driven pricing).
- Koon Soon (Justin) Teo, Graduated Summer 2009, CDO program. (research on loss of profit due to lack of coordination in competitive supply chains).
- Anupam Mazumdar, Graduated Summer 2009, CDO program (Iterative Algorithms for a Joint Pricing and Inventory Control Problem with Nonlinear Demand Functions).
- Daizhuo Chen, Graduated Summer 2010, CDO program (Modeling Travel Time Uncertainty in Traffic Networks).
- Thai Dung Nguyen, (co-advisor D. Bertsimas), Graduated Summer 2010, CDO program (Application of Robust and Inverse Optimization in Transportation).
- Jingxi Wang, Graduated Summer 2010, CDO program (A Decentralized Incentive Mechanism for Company-Wide Energy Consumption Reduction).
- Derrick Ongchin, LGO, Graduated May 2011 (research with Cisco on the health of inventory policies).
- Soji Awe, LGO, Graduated May 2011 (research with Boeing on the build-up of the 777 engine).
- Sid Balwani, LGO, Graduated May 2012 (research with Nationalgrid).
- Rachel Avril, LGO (Graduated May 2013 (research with Zara).
- Brent Yoder, LGO (Graduated May 2013) (research with Nationalgrid).
- Nori Ogura, LGO (Graduated May 2013) (research with Nationalgrid).

Current Doctoral Students:

- Zachary Leung, PhD expected graduation August 2014 (research on markdown pricing with strategic consumers).
- Gonzalo Romero (co-advisor R. Levi), PhD expected graduation August 2014 (research on the data-driven models in transportation).
- Maxime Cohen, PhD expected graduation August 2015 (research on energy and the solar technology market).
- Charles Thraves, PhD expected graduated May 2017 (research on pricing)
- Anna Papush, PhD expected graduation May 2017 (research on weather reliability and storm related emergency prediction for utilities).
- Ludovic Rizzo, PhD, expected graduation May 2018 (research on impact of social media on pricing)
- Daniel Chen (co-advisor R. Levi), PhD, expected graduation May 2018 (research on the data driven newsvendor problem).

Current Masters Students:

- Sean Whipple, LGO, expected graduation May 2014 (research with Nationalgrid on weather impact on the utilities assets and how to mitigate the impact).
- Ryan Doss, LGO, expected graduation May 2014 (research with Nationalgrid).
- Bradley Gesner, LGO, expected graduation May 2014 (research with Nationalgrid).
- Jose Garcia, LGO, expected graduation May 2014 (research with Zara).
- Wichinpong Sinchaisry (Park), CDO, expected graduation May 2015 (co-advisor Karen Zheng), (research on pricing).

XIV. Other:

Shaudi Hosseini, **UROP student**, 2005-2006.

Host of Dr Feng Haolin, Lingnan (2013) University, Visiting MIT Sloan as part of the Sloan-China Initiative.

Co-hosted Mr. Wang Wei, Visiting Scientist at Sloan from Fudan University, as part of the Sloan-China Initiative.

Hosted Dr Sun Jing from Tchinghua University, as part of the Sloan-China Initiative.

Hosted Dr. Daoli Zhu Visiting Scientist at Sloan from Fudan University, as part of the Sloan-China Initiative.

Hosted Dr. Xiao Zhiguo, Visiting Scientist at Sloan from Fudan University, as part of the Sloan-China Initiative.

Hosted Dr. Yang Zihui, Visiting Scientist at Sloan from Lingnan University, as part of the Sloan-China Initiative.

Served as Faculty Advisor-Mentor to Laura Kang, Susan Martonosi and Margret Vilborg (PhD students, ORC).

XV. Publications

Thesis

Geometric, interior point and classical methods for solving finite dimensional variational inequality problems, (Ph.D thesis), Brown University, 1993.

Refereed Journal Articles

- 1) A unifying geometric solution framework and complexity analysis for variational inequalities, (with T.L. Magnanti), *Mathematical Programming*, 71, 3, 327-352, 1995.
- 2) The orthogonality theorem and the strong-f-monotonicity condition for variational inequality algorithms, (with T.L. Magnanti), *SIAM Journal on Optimization*, 7, 1, 248-273, 1997.
- 3) Averaging schemes for variational inequalities and systems of equations, (with T.L. Magnanti), *Mathematics of Operations Research*, 22, 3, 568-587, 1997.
- 4) A new algebraic geometry integer programming algorithm, (with D. Bertsimas and S. Tayur), *Management Science*, 46, 7, 999-1008, 2000.
- 5) Computing fixed points by averaging, (with T.L. Magnanti), “*Transportation and Network Analysis – Current Trends*”, editors P. Marcotte, M. Gendreau, Chapter 12, 181-198, 2001.
- 6) Applications of Fluid Modeling in Distribution Systems, (with S. Kachani), referred volume on *Innovations in Financial and Economic Networks*, 214-236, 2003.
- 7) Solving variational inequality and fixed point problems by line searches and potential optimization, (with T.L. Magnanti), *Mathematical Programming*, Volume 101, Number 3, 435 – 461, 2004.
- 8) The “Price of Anarchy” when Costs are Non-separable and Asymmetric, in Integer Programming and Combinatorial Optimization, *Lecture Series in Computer Science*, editors D. Bienstock and G. Nemhauser, pp. 46-58, 2004.
- 9) Dynamic Pricing; A Learning Approach, (with D. Bertsimas), refereed chapter in *Mathematical and Computational Models for Congestion Charging*, (editors D. Hearn and S. Lawphongpanich), Vol. 101, pp. 45-79, Book Series: Applied Optimization, *Springer*, June 2006.
- 10) A robust SQP method for mathematical programs with linear complementarity constraints, (with S. Jie and X. Liu), *Journal of Computational Optimization and Applications*, Vol. 34, pp. 5-33, 2006.
- 11) Fluid Dynamics Models and their Applications in Transportation and Pricing, (with S. Kachani), *European Journal of Operations Research*, Vol. 170, No. 1, pp. 496-517, 2006.

- 12) Competitive Multi-period Pricing for Perishable Products: A Robust Optimization Approach, (with A. Sood), *Mathematical Programming*, Vol. 107, No 1-2, pp. 295-335, June 2006.
- 13) A Robust Optimization Approach to Dynamic Pricing and Inventory Control with no Backorders, (with E. Adida), *Mathematical Programming*, Vol. 107, No 1-2, pp. 97-129, June 2006.
- 14) An Analytical Model for Traffic Delays and the Dynamic User-Equilibrium Problem, (with G. Roels), *Operations Research*, Vol. 54, No. 6, pp. 1151-1171. November-December 2006.
- 15) The Price of Anarchy when Costs are Non-separable and Asymmetric, *Mathematics of Operations Research*, Vol. 32, pp. 614-628, 2007.
- 16) Solving Asymmetric Variational Inequalities via Convex Optimization (with M. Aghassi and D. Bertsimas), *Operations Research Letters*, Vol. 34, No. 5, pp. 481-490, September 2006.
- 17) Modeling the Transient Nature of Dynamic Pricing with Demand Learning in a Competitive Environment, (with C. Simon and S. Kachani), refereed chapter in *Network Science, Nonlinear Science and Infrastructure Science*, Chapter 11, pp. 223-267, (editor Terry Friesz), part of International Series in Operations Research and Management Science, Advancing the State of the Art, Springer, 2007.
- 18) The Price of Anarchy in Supply Chains; Quantifying the Efficiency of Price-Only Contracts (with G. Roels), *Management Science*, Vol. 53, No. 8, pp. 1249-1268. August 2007.
- 19) A Nonlinear Fluid Model of Dynamic Pricing and Inventory Control with no Backorders, (with E. Adida), *Naval Research Logistics*, Vol. 54, No. 7, pp. 767 - 795, September 2007.
- 20) Regret in the Newsvendor Problem with Partial Information (with G. Roels), *Operations Research*, Vol. 56, No. 1, pp. 188-203, January-February 2008. Also related extended abstract: The "Price of Information"; Inventory Management with Limited Information about Demand, (with G. Roels), extended abstract appeared in *MSOM Journal* (Manufacturing and Service Operations Management), Vol. 8, No. 1, pp. 98-117, Winter 2006.
- 21) Multi-period Models with Capacities in Competitive Supply Chain, (with M. Zaretsky), *POMS Journal* (Production and Operations Management Society Journal), Vol. 17, No. 4, July - August 2008.
- 22) Profit Loss in Differentiated Oligopolies (with A. Farahat), *Operations Research Letters*, 37 (1), p.43-46, January 2009.
- 23) Optimal Bidding in Online Auctions, (with D. Bertsimas and J. Hawkins), accepted in *Journal of Revenue Management and Pricing*, 2009.
- 24) A Dynamic Travel Time Models for Spillback, (with S. Kachani), *Networks and Spatial Economics*, 9 (4), 595-618, November 2009.
- 25) Robust Controls for Network Revenue Management, (with G. Roels), *MSOM*, 12 (1), 56-76, 2010.
- 26) Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition, (with E. Adida), *Operations Research*, 58 (2), 289- 302, 2010.
- 27) Dynamic pricing and inventory control: robust vs. stochastic uncertainty models; a computational study, (with E. Adida), *Annals of Operations Research*, 181 (1), 125-157, December 2010.
- 28) A Nonnegative Extension of the Affine Demand Function and Equilibrium Analysis for Multiproduct Price Competition, (with A. Farahat), *Operations Research Letters*, 38 (4), 280-286, 2010.
- 29) A Comparison of Bertrand and Cournot Profits in Oligopolies with Differentiated Products, (with A. Farahat), *Operations Research*, 59(2), 507-513, March-April 2011.
- 30) On the efficiency of price competition, (with A. Farahat), *Operations Research Letters*, 39(6), 414-418, 2011.
- 31) Generalized quantity competition for multiple products and loss of efficiency, (with J. Kluberg), *Operations Research*, Spring 2012, Vol 60, No 2, 335-350.
- 32) Price of Anarchy in Supply Chains with Partial Positive Externalities, (with W. Sun), *Operations Research Letters*, Spring 2012, Vol 40, No 2, 78-83.
- 33) Efficient Formulations for Constrained Pricing under Attraction Demand Models, accepted in *Mathematical Programming*, Fall 2012, (with P. Keller and R. Levi).

- 34) Business Analytics for Flexible Resource Allocation under Random Emergencies (with J. Calzada, M. Angulakati, S. Balwani, J. Uichanco), accepted in *Management Science, Special Issue on Business Analytics*, January 2014.
- 35) Improving Emergency Storm Planning using Machine Learning, (with V. Farias, M. Monsch, A. Papush, and S. Whipple from MIT and M. Angalakudati, J. Calzada, J. Gonynor, N. Raad, J. Schein, C. Warren, J. Williams from Nationalgrid), to appear in the Proceedings of the 2014 IEEE PES Transmission & Distribution Conference & Exposition, Vol. 11, No. 4, Dec. 2013.

Refereed Proceedings Articles

- 1) Travel Times in Dynamic Transportation Networks; A Fluid Dynamics Approach, (with S. Kachani), *Proceedings for TRISTAN IV*, 335-340, 2001.
- 2) Second Order Fluid Dynamics Models for Travel Times in Dynamic Transportation Networks, (with S. Kachani), *Proceedings of IEEE on Intelligent Transportation Systems*, 251-256, August 2001.
- 3) A Fluid Model of Dynamic Pricing and Inventory Control for Distribution Systems, (with S. Kachani), *Proceedings of Conference on Pricing Research*, Cornell University, September 2002.
- 4) A Fluid Model for the Anticipatory Route Guidance Problem, (with J. Bottom and S. Kachani), *Proceedings of 10th IFAC Symposium on Control in Transportation Systems*, 145-150, August 2003.
- 5) User Equilibrium versus System Optimum in Transportation when Costs are Non-separable and Asymmetric, in refereed *Proceedings for TRISTAN V*, 2004.
- 6) Leveraging Traffic Flow Modeling and Game Theory for Pricing and Logistical Systems, (with S. Kachani), in refereed *Proceedings for TRISTAN V*, 2004.
- 7) An Analytical Model for Traffic Delays, (with G. Roels), in refereed *Proceedings for TRISTAN V*, 2004.
- 8) The Price of Anarchy in Supply Chains: Quantifying the Efficiency of Price-Only Contracts, (with G. Roels), *Refereed Proceedings for the MSOM conference*, June 2006.
- 9) The Anticipatory Route Guidance Problem: Formulations, Analysis and Computational Results (with J. Bottom and S. Kachani), in refereed *Proceedings for TRISTAN VI*, 2007.
- 10) Profit and Efficiency Loss Due to Price Competition in Markets with Differentiated Products, (with A. Farahat), in refereed *Proceedings for MSOM*, 2007.
- 11) Generalized Cournot competition for multiple products and Price of Anarchy, (with J. Kluberg), in refereed *Proceedings for the MSOM Conference*, Maryland, 2008.
- 12) A Comparison of Price and Quantity Competition in Oligopolies with Differentiated Products, (with A. Farahat), in refereed *Proceedings for the MSOM Conference*, Maryland, 2008.
- 13) Generalized Cournot competition for multiple products and Price of Anarchy, (with J. Kluberg), in *Proceedings for the Forty-Sixth Annual Allerton Conference on Communication, Control, and Computing*, September 30 – October 2, 2008 Allerton Retreat Center, Monticello, Illinois 2008.
- 14) A Pricing Contract to Reduce Congestion and Improve Efficiency in Airports (with W. Sun), *MSOM Conference Refereed Proceedings*, June 2009.
- 15) Network Dynamic Pricing through Scenario Based Optimization, (with R. Lobel), *MSOM Conference Refereed Proceedings*, June 2009.
- 16) Loss of welfare in deregulated markets: an oligopolistic Cournot competition model, (with J. Kluberg), *MSOM Conference Refereed Proceedings*, June 2009.
- 17) Congestion Pricing for Airport Efficiency, (with W. Sun), *Conference Refereed Proceedings TRISTAN VII*, June 2010.
- 18) The Data-Driven Newsvendor Problem: New Bounds and Insights, (with R. Levi and J. Uichanco), *MSOM Conference Refereed Proceedings*, Israel. June 2010.
- 19) Loss of Coordination in a Competitive Supply Chain with Endogenous Pricing, (with W. Sun), *MSOM Conference Refereed Proceedings*, Israel. June 2010.
- 20) Consumer Choice Model for Forecasting Demand and Designing Subsidies for Solar Technology, (with R. Lobel), *MSOM Conference Refereed Proceedings*, Israel. June 2010.
- 21) Tractable markdown optimization under uncertainty, (with P. Harsha), *MSOM Conference Refereed*

- Proceedings*, Israel. June 2010.
- 22) Efficient Formulations for Constrained Pricing under Attraction Demand Models (with P. Keller and R. Levi), *MSOM Conference Refereed Proceedings*, Israel. June 2010.
 - 23) Menu Pricing Competition and a Common Agency with Informed Principals (with H. Nazerzadeh), *Proceedings 12th ACM Conference on Electronic Commerce (EC-2011)*, San Jose, CA, 371-372, June 2011.
 - 24) Menu Pricing Competition when Suppliers' Capacities are Private Information (with H. Nazerzadeh), *MSOM Conference Refereed Proceedings*, Michigan, June 2011.
 - 25) Dynamic Pricing and Equilibrium Outcomes, (with V. Farias and M. Monsch), *MSOM Conference Refereed Proceedings*, Michigan, June 2011.
 - 26) Consumer Rebates for Solar Technology Adoption (with M. Cohen and R. Lobel), *MSOM Conference Refereed Proceedings*, Michigan, June 2011.
 - 27) Markdown Pricing for a Fashion e-Tailer; the Impact of Returning Customers, (with Z. Leung and P. Harsha), *MSOM Conference Refereed Proceedings*, Michigan, June 2011.
 - 28) First-order Spread Information for Minimax Regret Inventory Problems, (with R. Levi and J. Uichanco), *MSOM Conference Refereed Proceedings*, Michigan, June 2011.
 - 29) Congestion Pricing for Service Industries, (with W. Sun), *MSOM Conference Refereed Proceedings*, Michigan, June 2011.
 - 30) Designing Consumer Subsidies with Industry Response for Green Technology Adoption (with M. Cohen and R. Lobel), *MSOM Conference Refereed Proceedings*, NYC, June 2012.
 - 31) Allocating Subsidies to Minimize a Commodity's Market Price A Network Design Approach (with G. Romero and R. Levi), *MSOM Conference Refereed Proceedings*, NYC, June 2012.
 - 32) Efficiency analysis for service industries with nonlinear demand and congestion effects (with W. Sun), *MSOM Conference Refereed Proceedings*, NYC, June 2012.
 - 33) Efficiency of joint-ventures in the healthcare industry, (with R. Levi, C. Shi and W. Sun), *MSOM Conference Refereed Proceedings*, NYC, June 2012.
 - 34) Efficient scheduling of operations under uncertainty: the case of a US gas utility company, (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad), *MSOM Conference Refereed Proceedings*, NYC, June 2012.
 - 35) Designing Subsidies with Industry Response Dynamics; Commitment vs Flexibility (with M. Cohen and R. Lobel), *MSOM Conference Refereed Proceedings*, NYC, June 2012.
 - 36) The Impact of Optimization on Promotion Planning, Revenue Management, (with M. Cohen. Z. Leung, K. Panchamgam, A. Smith), *MSOM Conference Refereed Proceedings*, INSEAD France, July 2013.
 - 37) Designing Subsidies with Industry Response: Commitment vs Flexibility, (with M. Cohen, J. Chemama, R. Lobel), *MSOM Conference Refereed Proceedings*, INSEAD France, July 2013.
 - 38) The Effectiveness of Uniform Subsidies to Incentivize Demand, (with G. Romero and R. Levi), *MSOM Conference Refereed Proceedings*, INSEAD France, July 2013.
 - 39) Bounded Rationality in Strategic Interactions (with B. Kalkanci), *MSOM Conference Refereed Proceedings*, INSEAD France, July 2013.
 - 40) Business analytics for flexible scheduling of service operations under random emergencies, (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad), *MSOM Conference Refereed Proceedings*, INSEAD France, July 2013.
 - 41) Promotion Optimization for Supermarkets, (with M. Cohen. Z. Leung, K. Panchamgam, A. Smith), *Refereed Proceedings of Workshop at LBS on Collaborative Academic/Practitioner Workshop*, July 2013.

Papers Submitted and/or Revised (Currently Under Review)

- 1) The Data Driven Newsvendor Problem – New Bounds and Insights, (with R. Levi and J.A. Villaranda Uichanco), submitted to *Operations Research*, revised Fall 2011, revised June 2013, invited for revision December 2013 (3rd round of review).
- 2) Congestion Pricing for Service Industries, (with W. Sun), submitted to *Management Science*, revised and October 2012, revised December 2013, (3rd round of review).
- 3) Menu Pricing Competition when Suppliers' Capacities are Private Information (with H. Nazerzadeh), submitted to *Operations Research*, invited for revision September 2012, revised January 2014 (2nd round of review).
- 4) Loss of Profit and Capacity Effects in a Two-Tier Capacitated Supply Chain, (with E. Adida), submitted to *Annals of Operations Research*, Fall 2011, revised Fall 2013 (2nd round of review).
- 5) The Impact of a Target on Newsvendor Decisions, (with L.G. Chen and Z. Long), submitted to *MSOM*, August 2012, revised summer 2013, invited for review Fall 2013 (2nd round of review).
- 6) Allocating Subsidies to Minimize a Commodity's Market Price, A Network Design Approach, (with R. Levi and G. Romero), *Management Science*, submitted Summer 2013, invited for a revision December 2013 (2nd round of review).
- 7) Technology subsidies allocation to minimize a good's market price, (with R. Levi and G. Romero), submitted to *Operations Research Letters*, Summer 2013, revised January 2014 (2nd round of review).
- 8) Dynamic Pricing through Sampling based Optimization, (with M. Cohen, R. Lobel) submitted to *European Journal of Operations Research*, Spring 2013.
- 9) The Impact of Consumer Subsidies for Green Technology Adoption (with M. Cohen and R. Lobel), submitted to *Management Science*, Fall 2013.
- 10) The Impact of Linear Optimization in Promotion Planning (with M. Cohen, Z. Leung, K. Panchamgam, A. Smith), submitted to *Operations Research*, January 2014.
- 11) First-order Spread Information for Minimax Regret Inventory Problems, (with R. Levi and J. Uichanco), submitted to *Operations Research*, Spring 2012, invited for revision October 2012 (1st round of review).
- 12) Efficiency of Supply Chains with Retailer Asymmetry, (with W. Sun) submitted to *Operations Research*, August 2012.

Papers in Progress

- 1) Bounded Rationality in Strategic Interactions in a Supply Chain (with B. Kalkanci), to be submitted to *Management Science*.
- 2) Optimal Contract Design for Joint ventures in the Healthcare Industry (with S. Cong, R. Levi and W. Sun), to be submitted to *Management Science*.
- 3) Consumer Choice Model for Forecasting Demand and Designing Subsidies for Solar Technology, (with R. Lobel), to be submitted to *MSOM*.
- 4) Markdown Pricing for a Fashion e-Tailer; the Impact of Returning Customers, (with Z. Leung and P. Harsha), under preparation.
- 5) Tractable Markdown Optimization under Uncertainty, (with P. Harsha), under preparation.
- 6) Loss of Efficiency in Deregulated Electricity Markets: A Supply Function Equilibrium Approach, (with J. Kluberg), under preparation.
- 7) Dynamic Pricing and Equilibrium Outcomes, (with V. Farias and M. Monsch) under preparation.

Non-Refereed Proceedings Publications

- 1) Solving Fixed Point and Variational Inequality Problems: Complexity, Convergence Conditions, and Averaging Methods, (with T.L. Magnanti), *Proceedings of the 1995 NSF Design and Manufacturing Grantees Conference*.

- 2) Averaging with well-behaved maps for finding fixed points, (with M. Epelman and T.L. Magnanti), *Proceedings of the 1998 NSF Design and Manufacturing Grantees Conference*.
- 3) From Frank-Wolfe to Steepest Descent; A descent framework for solving asymmetric variational inequalities, (with T.L. Magnanti), *Proceedings of the 1999 NSF Design and Manufacturing Grantees Conference*.
- 4) Second-Order Fluid Dynamic Models for Travel Times in Dynamic Transportation Networks, (with S. Kachani), *Proceedings of the 1st Annual Symposium of the Singapore MIT Alliance Program*, January 2001.
- 5) Dynamic Pricing in a Competitive Environment, (with A. Sood), *Proceedings of the 2nd Annual Symposium of the Singapore MIT Alliance Program*, January 2002.
- 6) Optimal Bidding in On-line Auctions, *Proceedings of the 2nd Annual Symposium of the Singapore MIT Alliance Program*, (with D. Bertsimas and J. Hawkins), January 2002.
- 7) A Simulation Approach for Determining Path Travel Times in Dynamic Transportation Networks, *Proceedings of the 2nd Annual Symposium of the Singapore MIT Alliance Program*, (with B.C. Khoo G. Lin and J. Paire) January 2002.
- 8) Dynamic Phenomena in Transportation and Related Systems, *Proceedings of the 2002 NSF Design and Manufacturing Grantees Conference*.
- 9) Fluid Dynamics Models for Traffic and Pricing, *Proceedings of the 3rd Annual Symposium of the Singapore, MIT Alliance Program*, (with S. Kachani) January 2003.
- 10) Competitive Multi-period Pricing with Fixed Inventories, *Proceedings of the 4th Annual Symposium of the Singapore, MIT Alliance Program*, (with A. Sood) January 2004.
- 11) Alleviating Travel Delay Uncertainties in Traffic Assignment and Traffic Equilibrium, *Proceedings of the 2009 NSF Design and Manufacturing Grantees Conference, Hawaii, 2009*.
- 12) Price of Anarchy and Its Applications, *Proceedings of the 2009 NSF Design and Manufacturing Grantees Conference, Hawaii, 2009*.
- 13) Price of Anarchy and its Applications, *Proceedings of the 2011 NSF Design and Manufacturing Grantees Conference, Atlanta, 2011*.
- 14) Alleviating Travel Delay Uncertainties in Traffic Assignment and Traffic Equilibrium, *Proceedings of the 2011 NSF Design and Manufacturing Grantees Conference, Atlanta 2011*.
- 15) Alleviating Travel Delay Uncertainties in Traffic Assignment and Traffic Equilibrium, *Proceedings of the 2012 NSF Design and Manufacturing Grantees Conference, Boston 2012*.

Reports

- 1) On the convergence of classical variational inequality algorithms, (with T.L. Magnanti), Technical Report, Operations Research Center, MIT, 1995.
- 2) A review of dynamic traffic assignment problems and connections to air transportation (with A. Odoni), *Report for EEC*, 1996.
- 3) Finding fixed points by averaging with well-behaved maps, (with M. Epelman and T.L. Magnanti), Technical Report, Operations Research Center, MIT, 1997.
- 4) Dynamic traffic flow network problems; a hydrodynamic theory approach, Technical Report, Operations Research Center, MIT, 1997.
- 5) On the efficient solution of variational inequalities; complexity and computational efficiency, (with M. Zaretsky), Technical Report, Operations Research Center, MIT 2002.
- 6) Competitive Multi-period Pricing for Perishable Products, (with A. Sood) Technical Report, Operations Research Center 2003.

Case Development

- 7) “Eurotel 3G Case” **Case Development** for the Course Data Models and Decisions 15.060, “Eurotel 3G Case” with R. Freund and M. Shay. This is a case on the application of Regression Analysis to auctions.
- 8) **Money Tree Mortgage: Alternative Funding Evaluation Under Distress**, Developed and Taught New Case for the Core MBA Course Data Models and Decisions 15.060 with Martins Blums (MBA 2010). This is a case applying all the tools we teach in the course, Regression, Simulation, Optimization and Decision Tree Analysis for the recent Credit Crisis in the Mortgage Industry.
- 9) **Hellas online; the IPTV Challenge**, New Case developed for the Core MBA Course Data Models and Decisions 15.060 with MBA student Nikos Andrikogiannopoulos (MBA 2011). This case applies some of the tools we teach in the course, namely regression and nonlinear optimization to determine the new customers to target for IPTV for the Greek Company Hellas online. This case is based on a real setting in the company.
- 10) **Case on ALSTOM**, New case developed for the Core MBA and EMBA Courses: Data Models and Decisions 15.060 with MBA student Mayank Kapoor (MBA 2012). This case applies optimization tools to optimize some of the operations at ALSTOM.
- 11) **Case on Nemo storm**, New case developed for the Core MBA and EMBA Courses: Data Models and Decisions 15.060 with MBA student Tal Izkowitz (MBA 2013), Diane Rucker (EMBA 2014), Jonathan Lehigh (Director of EMBA program). This case applies decision analysis/trees tools to determine the right course of action for the school regarding classes before the Nemo storm. It was used for the first time successful in January 2014 for the class of EMBA 2015.

XVI. Invited Oral Presentations

1990-1997

- 1) On the convergence of projection algorithms for variational inequality problems, presented in the Conference in Regional Science, November 1990.
- 2) A unifying geometric framework for solving variational inequalities in polynomial time, presented at the ORSA-TIMS Conference in San Francisco, November 1992.
- 3) On the convergence of classical variational inequality algorithms, presented at the ORSA-TIMS Conference in Chicago, May 1993.
- 4) Convergence conditions for variational inequality algorithms, presented in the Operations Research Center Seminar Series at MIT, October 1993.
- 5) From Frank-Wolfe to steepest descent; A descent framework for solving VIPs, presented at the ORSA-TIMS Conference in Boston, May 1994.
- 6) Averaging schemes for solving fixed point and variational inequality problems, presented in the International Symposium on Mathematical Programming, in Ann Arbor, August 1994.
- 7) Averaging schemes for solving fixed point problems, presented at the ORSA- TIMS Conference in Detroit, October 1994.
- 8) Solving fixed point and variational inequalities, poster presentation in 1995 NSF Design and Manufacturing Grantees Conference, in San Diego, January 1995.
- 9) Best averaging schemes for solving fixed point problems, presented in the MIT optimization day, mini symposium, April 1995.
- 10) Best averaging schemes for solving fixed points, presented at the INFORMS Conference in Los Angeles, April 1995.
- 11) Solving fixed points and variational inequalities by averaging and optimizing potentials, presented at an invited session at the INFORMS Conference in Atlanta, November 1996.
- 12) An incremental path loading method for solving network equilibrium problems, presented at an invited session at the INFORMS Conference in San Diego, May 1997.
- 13) Large scale optimization for European air traffic flow management, presented in TRANSPORTATION SYSTEMS '97, Chania, Greece, June 1997.

- 14) Averaging with well-behaved maps for solving fixed point and variational inequality problems, presented at the International Symposium on Mathematical Programming in Lausanne, Switzerland, August 1997.
- 15) A generalized potential approach to averaging for solving variational inequality and fixed point problems, presented in the International Symposium on Mathematical Programming in Lausanne, Switzerland, August 1997.
- 16) Averaging with well-behaved maps for solving fixed points, presented at an invited session at the INFORMS Conference in Dallas, October 1997.

1998-2000

- 17) On the convergence of the Frank-Wolfe method for solving asymmetric variational inequalities, presented at an invited session at the INFORMS Conference in Montreal, May 1998.
- 18) A new algebraic geometry algorithm for integer programming, presented at an invited session at the INFORMS Conference in Seattle, October 1998.
- 19) Equilibrium problems; models and algorithms - a mathematical programming approach, series of invited lectures for graduate and postgraduate students at the University in Grenoble, France, November 1998.
- 20) An algebraic geometry approach to integer programming, presented at the Operations Research Center Seminar Series at MIT, Spring 1999.
- 21) Computing fixed points by averaging, presented at an invited session in the Optimization Days Conference in Montreal, May 1999.
- 22) Dynamic pricing in a competitive environment, presented at an invited session at the INFORMS Conference in Salt Lake City, May 2000.
- 23) A Fluid Dynamics Model for the Traffic Equilibrium Problem, presented at the International Symposium on Mathematical Programming in Atlanta, Georgia, August 2000, also presented at the 1st Annual Symposium of the Singapore-MIT Alliance Program, January 2001.
- 24) Dynamic pricing in a competitive environment; a learning approach, presented at an invited session in the International Symposium on Mathematical Programming in Atlanta, Georgia, August 2000.
- 25) An affine scaling method with cuts and long steps for solving variational inequalities, presented at an invited session in the International Symposium on Mathematical Programming in Atlanta, Georgia, August 2000.
- 26) A dynamic pricing approach in revenue management, presented at an invited session at the INFORMS Conference in San Antonio, Texas, November 2000.
- 27) Cutting plane and interior point methods for solving variational inequalities, presented at an invited session at the INFORMS Conference in San Antonio, Texas, November 2000.

2001

- 28) Optimal bidding in on-line auctions over the internet, presented at the 1st Annual INFORMS Revenue Management Section Conference, Columbia University, NY, June 2001.
- 29) Modeling Travel Times in Dynamic Transportation Networks; A Fluid Dynamics Approach, presented at the TRISTAN IV Conference in Transportation, June 2001.
- 30) Second Order Fluid Dynamics Models for Travel Times in Dynamic Transportation Networks, presented at the 4th International IEEE Conference on Intelligent Transportation Systems, August 2001.
- 31) A Continuous Fluid Dynamics Model for Dynamic Pricing, presented at the INFORMS Conference in Miami, November 2001.
- 32) The "Price" of Traffic Delays in Dynamic Transportation Networks, presented at the INFORMS Conference in Miami, November 2001.
- 33) Optimal bidding in on-line auctions over the internet, presented at the INFORMS Conference in Miami, November 2001.
- 34) Interior point variations on the Frank-Wolfe method, presented at the INFORMS Conference in Miami, November 2001.

2002

- 35) Optimal Bidding on eBay, presented in MIT's eBusiness center weekly seminar series, November 2001, the eBusiness Annual Sponsors' meeting, May 2002, and in the 2nd Annual Symposium of the MIT Alliance Program in Singapore, January 2002.
- 36) Dynamic Pricing in a Competitive Environment, presented in the 2nd Annual Symposium of the MIT Alliance Program in Singapore, January 2002.
- 37) Traffic Delays and User-Equilibrium in Dynamic Transportation Networks, presented in the Optimization Days Conference, in Montreal, May 2002.
- 38) A Fluid Dynamics Model for Pricing and Inventory Management, presented in the Optimization Days Conference, in Montreal, May 2002.
- 39) The Anticipatory Route Guidance Problem: Formulations, Analysis and Computational Results, presented in the Optimization Days Conference, in Montreal, May 2002.
- 40) Travel Times in Dynamic Transportation Networks, presented at the Seminar Series of the Transportation Center at Northwestern University, May 2002.
- 41) A Fluid Dynamics Model for Dynamic Pricing and Inventory Management, presented at the 2nd Annual Revenue Management Conference, at Columbia University, June 2002.
- 42) Dynamic Pricing for Perishable Products under Competition, presented at the 2nd Annual Revenue Management Conference, at Columbia University, June 2002.
- 43) Bidding and Selling Mechanisms in Online Auctions, presented at the 2nd Annual Revenue Management Conference, at Columbia University, June 2002.
- 44) Bidding in Online Auctions, presented at the eBusiness Center Day at MIT, May 2002.
- 45) Modeling Traffic Delays in Dynamic Transportation Networks, presented at an invited session of the IFORS Meeting in Scotland, July 2002.
- 46) Dynamic Pricing and Inventory Management, presented at an invited session of the IFORS Meeting in Scotland, July 2002.
- 47) A Fluid Model of Dynamic Pricing and Inventory Control for Distribution Systems, presented at the Conference on Pricing Research, Cornell University, September 2002.
- 48) A Fluid Model of Dynamic Pricing for Make-to-Stock Systems, presented at the INFORMS Conference in San Jose, November 2002.
- 49) The Anticipatory Route Guidance Problem: Formulations, Analysis and Computational Results, presented at the INFORMS Conference in San Jose, November 2002.
- 50) Dynamic Pricing for Perishable Products under Competition, presented at the INFORMS Conference in San Jose, November 2002.
- 51) Bidding and Selling Mechanisms in Online Auctions, presented at the INFORMS Conference in San Jose, November 2002.
- 52) Fluid Dynamics Models and their Applications in Transportation and Pricing, IMA, Minnesota, and at Stanford University, November 2002.
- 53) Solving Network Equilibrium Problems in Static and Dynamic Environments, presented at the INFORMS Conference in San Jose, November 2002.

2003

- 54) Two Models of Dynamic Pricing, Invited Talk at the weekly seminar series in the IEOR Department, University of Michigan, April 2003.
- 55) A Variational Inequality Model for Dynamic Pricing under Competition, invited speaker at a workshop in Revenue Management and Pricing, University of Montreal, May 2003.
- 56) Dynamic Pricing Under Competition when Demand is Stochastic, 3rd Annual Revenue Management Conference, at Columbia University, June 2003, with A. Sood.
- 57) A Fluid Model of Dynamic Pricing and Inventory Control for Distribution Systems, invited talk at the Euro Informs Conference, Istanbul, Turkey, July 2003 with S. Kachani.

- 58) Dynamic Pricing in a Competitive Environment through Dynamic Optimization, invited talk at the Euro Informs Conference, Istanbul, Turkey, July 2003, with A. Sood.
- 59) A Variational Inequality Model for Dynamic Pricing under Competition, invited talk at the ISMP conference in Copenhagen, August 2003, with A. Sood.
- 60) A Fluid Dynamics Model for Distribution Systems and Anticipatory Route Guidance, invited talk at the ISMP conference in Copenhagen, August 2003, with S. Kachani.
- 61) The Price of Competition and its Applications, invited speaker at the weekly seminar series at Columbia University Business School, Fall 2003.
- 62) An Analytical Model for Traffic Delays and the DUE Problem, invited talk at the Informs conference in Atlanta, Fall 2003, with G. Roels.
- 63) Dynamic Pricing in a Multi-Product Retail Market, invited talk at the Informs conference in Atlanta, Fall 2003, with S. Kachani.
- 64) Applications of Fluid Modelling in Distribution Systems, invited talk at the Informs conference in Atlanta, Fall 2003, with S. Kachani.
- 65) Dynamic Pricing Under Competition when Demand is Stochastic, invited talk at the Informs conference in Atlanta, Fall 2003, with A. Sood.
- 66) Fluid Models for Dynamic Pricing and Inventory Management, invited talk at the Informs conference in Atlanta, Fall 2003, with E. Adida.
- 67) Multiperiod models with capacities in competitive supply chain, invited talk at the Informs conference in Atlanta, Fall 2003, with M. Zaretsky.

2004

- 68) Invited Minicourse at the University of Montreal, PLU6000. January 2004.
- 69) Invited Speaker for the Course in Transportation and Logistics, IEOR Department, Columbia University, February 2004.
- 70) The "Price of Anarchy" under Nonlinear and Asymmetric Costs. Invited speaker at the weekly seminar series in the Operations Research Center, Spring 2004.
- 71) The "Price of Anarchy" under Nonlinear and Asymmetric Costs. Invited Speaker at the Distinguished Lecture Series, at Penn State University, Spring 2004.
- 72) Dynamic Pricing in a Transient and Competitive Setting, (with S. Kachani and C. Simon). Informs CORS Conference, Banff, Spring 2004.
- 73) The "Price of Anarchy" under Nonlinear and Asymmetric Costs. Informs CORS Conference, Banff, Spring 2004.
- 74) Competitive Multi-period Pricing with Fixed Inventories, (with A. Sood). Informs CORS Conference, Banff, Spring 2004.
- 75) The "Price of Anarchy" when Costs are Nonlinear and Asymmetric, IPCO Conference, Columbia University, NYC, June 2004.
- 76) An MPEC Approach to Dynamic Pricing and Demand Learning. RM and Pricing Conference, (with S. Kachani and C. Simon), MIT June 2004.
- 77) Multi-period Pricing for Perishable Products; a Robust Optimization Approach. RM and Pricing Conference, (with A. Sood), MIT June 2004.
- 78) A Robust Nonlinear Fluid Model of Dynamic Pricing and Inventory Control with no Backorders. RM and Pricing Conference, (with E. Adida), MIT June 2004.
- 79) An Analytical Model for Traffic Delays, (with G. Roels). TRISTAN V Conference, Guadeloupe, June 2004.
- 80) Leveraging Traffic Flow Modeling and Game Theory for Pricing and Logistical Systems, (with S. Kachani). TRISTAN V Conference, Guadeloupe, June 2004.
- 81) User Equilibrium versus System Optimum in Transportation when Costs are Non-separable and Asymmetric. TRISTAN V Conference, Guadeloupe, June 2004.
- 82) Multi-period Pricing for Perishable Products, (with A. Sood), MSOM conference, July 2004, Eindhoven, Netherlands.

- 83) The "Price of Anarchy" when Costs are Nonlinear and Asymmetric, First Continuous Optimization Conference, August 2004, RPI, Troy, NY.
- 84) Five invited presentations at the Informs Conference, Denver, Fall 2004.

2005

- 85) Invited Speaker at the Seminar series of the IEOR Department at Lehigh University, Fall 2005
- 86) The Price of Anarchy and its Applications, seminar series invited speaker at the Center for Information and Engineering Systems, Boston University, January 2005.
- 87) Multi-Period Pricing of Perishable Products; Competition, Uncertainty and Learning, NSF Workshop on Application of Network Science and Nonlinear Science to the Study to Infrastructure Systems, Penn State University, May 2005.
- 88) Ordering and Pricing Policies of Two Competing Retailers in Response to Temporary Price Discount Offered by their Supplier, (with K. Pochampally), POMS Conference, Chicago, May 2005.
- 89) A Transient Model for Joint Dynamic Pricing and Demand Learning Under Competition, (with S. Kachani and C. Simon), Fifth Annual INFORMS Revenue Management and Pricing Section Conference, June 2005, Cambridge MA.
- 90) Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition, (with A. Adida), Fifth Annual INFORMS Revenue Management and Pricing Section Conference, June 2005, Cambridge MA.
- 91) The Distribution-Free Newsvendor: Inventory Management with limited information about demand, (with G. Roels), Fifth Annual INFORMS Revenue Management and Pricing Section Conference, June 2005, Cambridge MA.
- 92) The Distribution-Free Newsvendor: Inventory Management with limited information about demand, MSOM Conference, (with G. Roels), Northwestern University, June 2005.
- 93) A Transient Approach to Dynamic Pricing Under Competition, (with S. Kachani and C. Simon). IFORS Triennial, Honolulu HI, July 2005.
- 94) Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition (with E. Adida). IFORS Triennial, Honolulu HI, July 2005.
- 95) Multi-Period Pricing of Perishable Products; Competition, Uncertainty and Learning, (with A. Sood and D. Nguyen), Invited talk at the DIMACS Center at Rutgers, NSF Sponsored Workshop on Pricing and Yield Management, August 2005.
- 96) Oligopoly Competition; Bertrand versus Cournot, (with A. Farahat), 4rth International Conference on Complementarity Problems, Stanford University, August 2005.
- 97) Oligopoly Competition; Bertrand versus Cournot, (with A. Farahat), INFORMS Annual Meeting, November 2005, San Francisco, CA.
- 98) Pricing and Demand Learning for Perishable Products in a Competitive Transient Setting, (with S. Kachani and C. Simon), INFORMS Annual Meeting, November 2005, San Francisco, CA.
- 99) Value-Added of Learning in the Pricing of Perishable Products, , (with S. Kachani and C. Simon), INFORMS Annual Meeting, November 2005, San Francisco, CA.
- 100) Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition, (with A. Adida), INFORMS Annual Meeting, November 2005, San Francisco, CA.
- 101) Robust Revenue Management, (with G. Roels), INFORMS Annual Meeting, November 2005, San Francisco, CA.
- 102) Multi-Period Pricing of Perishable Products; Competition, Uncertainty and Learning, (with D. Nguyen), INFORMS Annual Meeting, November 2005, San Francisco, CA.

2006

- 103) Multi-Period Pricing of Perishable Products; Competition, Uncertainty and Learning, (with D. Nguyen), Singapore-MIT Alliance Conference, Singapore, January 2006.

- 104) Multi-period pricing of perishable products; competition, uncertainty and learning, invited talk, Operations Management, Seminar Series, Operations Management, Isenberg School of Management, Spring 2006, UMass Amherst.
- 105) Multi-period pricing of perishable products; competition, uncertainty and learning, Operations Management, invited talk, Seminar Series, Spring 2006, Stern, NYU.
- 106) Dynamic Pricing and Inventory Control with no Backorders; Uncertainty and Competition (with E. Adida), 6th Annual Conference of the Pricing and Revenue Management INFORMS Section, Columbia University, June 2006.
- 107) Joint pricing and demand learning for multiple perishable products in a competitive transient setting (with S. Kachani and C. Simon), 6th Annual Conference of the Pricing and Revenue Management INFORMS Section, Columbia University, June 2006.
- 108) Comparing Price and Quantity Competition in Oligopolies with Differentiated Products, (with A. Farahat), 6th Annual Conference of the Pricing and Revenue Management INFORMS Section, Columbia University, June 2006.
- 109) Distribution Free Revenue Management (with G. Roels), 6th Annual Conference of the Pricing and Revenue Management INFORMS Section, Columbia University, June 2006.
- 110) The Price of Anarchy in Supply Chains: Quantifying the Efficiency of Price-Only Contracts, (with G. Roels), MSOM conference, Georgia Tech, June 2006
- 111) Dynamic pricing and inventory control; uncertainty and competition through robust optimization and quasi variational inequalities (with E. Adida), Rio Brazil, ISMP conference 2006
- 112) Multi-period pricing of perishable products; competition, uncertainty and learning (with D. Nguyen), Rio Brazil, ISMP conference 2006.
- 113) Oligopolistic Competition; Bertrand versus Cournot and Price of Anarchy, (with A. Farahat), invited talk, Seminar Series, Robert H. Smith School of Business, University of Maryland, October 2006.
- 114) An MPEC Approach to Dynamic Pricing with Learning Under Competition (with S. Kachani and C. Simon), *INFORMS Annual Meeting*, November 2006.
- 115) Comparing Price and Quantity Competition in Oligopolies with Differentiated Products (with A. Farahat), *INFORMS Annual Meeting*, November 2006.
- 116) Dynamic Pricing and Inventory Control Through Robust Optimization (with E. Adida), *INFORMS Annual Meeting*, November 2006.
- 117) Robust Revenue Management, (with G. Roels), *INFORMS Annual Meeting*, November 2006.
- 118) Asymmetric Variational Inequalities via Convex Optimization (with M. Aghassi and D. Bertsimas), *INFORMS Annual Meeting*, November 2006.

2007

- 119) Multi-Period Pricing of Perishable Products under Competition, Invited Seminar, Management Science and Operations Research, London Business School, London, February 2007.
- 120) Pricing of Perishable Products under Competition, Invited Seminar, Industrial and Engineering Systems, University of Buffalo, NY, April 2007.
- 121) Oligopoly Competition in Pricing: Bertrand versus Cournot and the “Price of Anarchy”, (with A. Farahat), invited seminar, Business School, NUS, Singapore, June 2007.
- 122) A Fluid Model for the Anticipatory Route Guidance, (with J. Bottom and S. Kachani), *TRISTAN VI Conference*, Phuket, Thailand, June 2007.
- 123) Profit and Efficiency Loss Due to Price Competition in Markets with Differentiated Products, (with A. Farahat), *MSOM Conference*, Beijing China, June 2007.
- 124) Profit Loss due to Price Competition in Markets with Differentiated Products, (with A. Farahat), *7th Annual INFORMS Revenue Management and Pricing Section Conference*, Spain, June 2007.
- 125) The Strategic Role of Capacity in a Joint Inventory Management and Pricing Game, (with E. Adida), *7th Annual INFORMS Revenue Management and Pricing Section Conference*, Spain, June 2007.
- 126) Dynamic Pricing Using Adjustable Optimization, (with R. Lobel), *7th Annual INFORMS Revenue Management and Pricing Section Conference*, Spain, June 2007.

- 127) Dynamic Pricing and Inventory Control: Robust vs. Stochastic Uncertainty Models, (with E. Adida), *22nd European Conference on Operational Research*, Prague. July 2007.
- 128) Robust Network Revenue Management, (with G. Roels), *22nd European Conference on Operational Research*, Prague. July 2007.
- 129) Pricing of Perishable Products under Competition, *ICCOPT-MOPTA Conference*, Hamilton, Canada, 2007.
- 130) Role of Capacity in a Joint Inventory Management and Pricing Game, (with E. Adida), *INFORMS Midwest Regional Conference*, August 2007, Northwestern University.
- 131) A Data-driven Approach to Pricing with Learning in Competitive Environments, *Seattle INFORMS Annual Meeting*, (with S. Kachani and C. Simon), November 2007.
- 132) Role of Capacity in a Joint Inventory Management and Pricing Game, *Seattle INFORMS Annual Meeting*, (with E. Adida), November 2007.
- 133) Quantifying the Loss of Profit in Price Competition for Differentiated Products, *Seattle INFORMS Annual Meeting*, (with A. Farahat), November 2007.
- 134) Dynamic Pricing Through Adjustable Robust Optimization, *Seattle INFORMS Annual Meeting*, (with R. Lobel), November 2007.
- 135) Price of Anarchy in Quadratic Utility Games, *Seattle INFORMS Annual Meeting*, (with J. Kluberg), November 2007.

2008

- 136) Pricing in Oligopoly Markets for Perishable Products; Uncertainty and Competition, invited workshop, NUS, Singapore, January 2008.
- 137) Price and Quantity Competition; Loss of Efficiency, and Profit Comparisons (with A. Farahat), invited seminar, SMU, Singapore, January 2008.
- 138) Pricing in Oligopoly Markets for Perishable Products; Uncertainty and Competition, invited speaker at the seminar series of the Division of Operations and Logistics, Sauder School of Business, University of British Columbia, Canada, March 2008.
- 139) Pricing in Oligopoly Markets for Perishable Products, invited speaker at the Operations Management Seminar Series, University of Southern California, Marshall School of Business, March 2008.
- 140) Profit Loss and Loss of Efficiency due to Competition, invited speaker at the Operations Management Seminar Series, MEDS Kellogg, Northwestern University, April 2008.
- 141) Pricing in Oligopoly Markets; Uncertainty and Competition, invited speaker at ORIE Seminar Series, Cornell University, April 2008.
- 142) Loss of Efficiency in Quadratic Utility Games (with J. Kluberg), invited speaker, SIAM Conference on Optimization, Boston, May 2008.
- 143) Pricing in Oligopoly Markets for Perishable Products: Learning and Loss of Efficiency, invited speaker, SIAM Conference on Optimization, Boston, May 2008.
- 144) A Comparison of Price and Quantity Competition in Oligopolies with Differentiated Products (with A. Farahat), MSOM Annual Conference, University of Maryland, Maryland, June 2008.
- 145) Generalized Cournot Competition for Multiple Products and Price of Anarchy (with J. Kluberg), MSOM Annual Conference, University of Maryland, Maryland, June 2008.
- 146) The Anarchy of Price Competition (with A. Farahat), *8th Annual INFORMS Revenue Management and Pricing Section Conference*, Montreal, Canada, June 2008.
- 147) Dynamic Pricing Using Scenario Based Optimization (with R. Lobel), *8th Annual INFORMS Revenue Management and Pricing Section Conference*, Montreal, Canada, June 2008.

- 148) Plenary Speaker for the MOPTA conference (Modeling and Optimization: Theory and Applications), held this year at the University of Guelph, Ontario Canada, August 2008.
- 149) Invited to Workshop on Operations Management, MEDS Kellogg, Northwestern University, April 2008.
- 150) Generalized Cournot competition for multiple products and Price of Anarchy, (with J. Kluberg), in the Forty-Sixth Annual Allerton Conference on Communication, Control, and Computing, September Allerton Retreat Center, Monticello, Illinois 2008.
- 151) An FPTAS for Dynamic Pricing with Learning, *Washington DC, INFORMS Annual Meeting*, (with V. Farias, R. Levi, J. Orlin), October 2008.
- 152) Dynamic Pricing using Scenario Based Optimization, *Washington DC, INFORMS Annual Meeting*, (with R. Lobel), October 2008.
- 153) Generalized Quantity Competition for Multiple Products and Loss of Efficiency, *Washington DC, INFORMS Annual Meeting*, (with J. Kluberg), October 2008.
- 154) The Anarchy of Price Competition, *Washington DC, INFORMS Annual Meeting*, (with A. Farahat), October 2008.
- 155) Role of Capacity in a Joint Inventory Management and Pricing Game, *Washington DC, INFORMS Annual Meeting*, (with E. Adida), October 2008.

2009

- 156) The Price of Oligopolistic Competition, Operations Research Center Seminar Series, MIT, April 2009.
- 157) The Price of Oligopolistic Competition, NUS, Workshop, Singapore, May 2009.
- 158) Loss of welfare in deregulated markets: an oligopolistic Cournot competition model, (with J. Kluberg), *Pricing and Revenue Management INFORMS Section Annual Conference*, Kellogg, June 2009.
- 159) A Pricing Contract to Reduce Congestion and Improve Efficiency in Airports (with W. Sun), *MSOM Conference*, June 2009.
- 160) Network Dynamic Pricing Through Scenario Based Optimization, (with R. Lobel), *MSOM Conference*, June 2009.
- 161) Loss of welfare in deregulated markets: an oligopolistic Cournot competition model, (with J. Kluberg), *MSOM Conference*, June 2009.
- 162) Dynamic Pricing Through Scenario Based Optimization, (with R. Lobel), *ISMP Conference*, August 2009.
- 163) Loss of Welfare in Deregulated Markets: Application to Electricity Markets, (with J. Kluberg), *ISMP Conference*, August 2009.
- 164) Optimal Multi-product Pricing for Attraction Demand Models, (with P. Keller and R. Levi), *ISMP Conference*, August 2009.
- 165) A Pricing Contract to Reduce Airport Congestion, (with W. Sun), San Diego, *INFORMS Annual Meeting*, 2009.
- 166) Data-Driven Approaches for Newsvendor Models, (with R. Levi and J. Uichanco), San Diego, *INFORMS Annual Meeting*, 2009.
- 167) Multi-Product Pricing under Attraction Demand Models, (with P. Keller and R. Levi), San Diego, *INFORMS Annual Meeting*, 2009.
- 168) Dynamic Incentives for Adoption of Renewable Energy Technology (with R. Lobel), San Diego, *INFORMS Annual Meeting*, 2009.
- 169) Markov Perfect Equilibria in Stochastic Games (with V. Farias and M. Monsch), San Diego, *INFORMS Annual Meeting*, 2009.
- 170) Loss of Welfare in Oligopolistic Games: Application to Deregulated Electricity Markets (with J. Kluberg), San Diego, *INFORMS Annual Meeting*, 2009.
- 171) The “Price” of Price-only Contracts in Competitive Supply Chains (with W. Sun and J. Teo), Operations Management Seminar Fall 2009.

2010

- 172) The “Price” of Price-only Contracts in Competitive Supply Chains invited seminar at Queen’s Business School, Kingston, Ontario Canada, January 2010.
- 173) The “Price” of Price-only Contracts in Competitive Supply Chains when Pricing is Endogenous, invited seminar at Chicago Booth Business School OM Seminar, University of Chicago, Spring 2010.
- 174) The “Price” of Price-only Contracts in Competitive Supply Chains when Pricing is Endogenous, invited seminar at the Ross School of Business OM Seminar, University of Michigan, Spring 2010.
- 175) The “Price” of Retailer Asymmetry and Product Differentiation in a Competitive Supply Chain, invited seminar at the Transportation@MIT Seminar Series, April 2010.
- 176) The “Price” of Price-only Contracts in Competitive Supply Chains, (with W. Sun), invited talk at the Behavioral and Quantitative Game Theory Conference, Newport Beach, California, May 2010.
- 177) The “Price” of Retailer Asymmetry and Product Differentiation in a Competitive Supply Chain, invited talk at the workshop “Mostly OM”, Tsinghua University, Beijing, China, May 2010.
- 178) Congestion Pricing for Airport Efficiency, (with W. Sun), *TRISTAN VII* Conference, Norway, June 2010.
- 179) The Data-Driven Newsvendor Problem: New Bounds and Insights, (with R. Levi and J. Uichanco), MSOM Conference, Israel. June 2010.
- 180) Loss of Coordination in a Competitive Supply Chain with Endogenous Pricing, (with W. Sun), MSOM Conference, Israel, and INFORMS Annual Pricing and Revenue Management Conference, Ithaca Cornell, June 2010.
- 181) Consumer Choice Model for Forecasting Demand and Designing Subsidies for Solar Technology, (with R. Lobel), MSOM Conference, Israel and INFORMS Annual Pricing and Revenue Management Conference, Ithaca Cornell, June 2010.
- 182) Tractable markdown optimization under uncertainty, (with P. Harsha), MSOM Conference, Israel and INFORMS Annual Pricing and Revenue Management Conference, Ithaca Cornell, June 2010.
- 183) Efficient Formulations for Constrained Pricing under Attraction Demand Models (with P. Keller and R. Levi), MSOM Conference, Israel, June 2010.
- 184) Congestion Pricing to Improve Efficiency in Air Transportation, (with W. Sun), INFORMS Annual Pricing and Revenue Management Conference, Ithaca Cornell, June 2010.
- 185) Loss of Efficiency in Deregulated Electricity Markets: A Supply Function Equilibrium Approach, (with J. Kluberg), INFORMS Annual Pricing and Revenue Management Conference, Ithaca Cornell, June 2010.
- 186) The “Price” of Retailer Asymmetry and Product Differentiation in a Competitive Supply Chain, invited seminar at UT Dallas Business School, Dallas, September 2010.
- 187) The “Price” of Retailer Asymmetry and Product Differentiation in a Competitive Supply Chain, invited seminar at the joint DRO and IEOR Seminar Series at Columbia University, New York, October 2010.
- 188) Consumer Choice Model for Forecasting Demand and Designing Subsidies for Solar Technology, (with R. Lobel), INFORMS Annual Conference, Austin Texas, November 2010.
- 189) Dynamic Pricing and Equilibrium Outcomes, (with M. Monsch and V. Farias), INFORMS Annual Conference, Austin Texas, November 2010.
- 190) First-order Spread Information and Minimax Regret Inventory Problems, (with R. Levi and J. Uichanco), INFORMS Annual Conference, Austin Texas, November 2010.
- 191) Tractable markdown optimization under uncertainty, (with P. Harsha), INFORMS Annual Conference, Austin Texas, November 2010.
- 192) Loss of Efficiency in Deregulated Electricity Markets: A Supply Function Equilibrium Approach, (with J. Kluberg), INFORMS Annual Conference, Austin Texas, November 2010.
- 193) Price of Price-Only Contracts in Competitive Supply Chains when Pricing is Endogenous (with W. Sun), INFORMS Annual Conference, Austin Texas, November 2010.

- 194) Dynamic Pricing through Sampling Based Optimization, poster (with R. Lobel), Institute for Pure and Applied Mathematics at UCLA Workshop IV: Robust Optimization, November 16, 2010.
- 195) Tractable markdown optimization under uncertainty, (with P. Harsha), Oracle Retail, November 2010.

2011

- 196) The “Price” of Retailer Asymmetry and Product Differentiation in a Competitive Supply Chain, Texas A&M University, Invited Seminar Speaker, Spring 2011.
- 197) The “Price” of Retailer Asymmetry and Product Differentiation in a Competitive Supply Chain, University of Irvine, Invited Seminar Speaker, Spring 2011.
- 198) Markdown Optimization with Returning Customers, (with Z. Leung and P. Harsha), Northeast Informs Regional Conference, University of Amherst, Spring 2011.
- 199) Menu Pricing Competition and a Common Agency with Informed Principals (with H. Nazerzadeh), *12th ACM Conference on Electronic Commerce (EC-2011)*, San Jose, CA, June 2011.
- 200) Menu Pricing Competition when Suppliers' Capacities are Private Information (with H. Nazerzadeh), *MSOM Conference* Michigan, June 2011.
- 201) Dynamic Pricing and Equilibrium Outcomes, (with V. Farias and M. Monsch), *MSOM Conference* Michigan, June 2011.
- 202) Consumer Rebates for Solar Technology Adoption (with M. Cohen and R. Lobel), *MSOM Conference*, Michigan, June 2011.
- 203) Markdown Pricing for a Fashion e-Tailer; the Impact of Returning Customers, (with Z. Leung and P. Harsha), *MSOM Conference*, Michigan, June 2011.
- 204) First-order Spread Information for Minimax Regret Inventory Problems, (with R. Levi and J. Uichanco), *MSOM Conference*, Michigan, June 2011.
- 205) Congestion Pricing for Service Industries, (with W. Sun), *MSOM Conference*, Michigan, June 2011
- 206) Menu Pricing Competition when Suppliers' Capacities are Private Information (with H. Nazerzadeh), *Annual Conference of the Informs Section on Pricing and Revenue Management*, Columbia University, NYC, June 2011.
- 207) Tractable markdown optimization for multiple items under uncertainty, (with P. Harsha), *Annual Conference of the Informs Section on Pricing and Revenue Management*, Columbia University, NYC, June 2011.
- 208) Dynamic Pricing and Equilibrium Outcomes, (with V. Farias and M. Monsch), *Annual Conference of the Informs Section on Pricing and Revenue Management*, Columbia University, NYC, June 2011.
- 209) Congestion Pricing for Service Industries, (with W. Sun), *Annual Conference of the Informs Section on Pricing and Revenue Management*, Columbia University, NYC, June 2011.
- 210) Menu Pricing Competition when Suppliers' Capacities are Private Information (with H. Nazerzadeh), *Annual Informs Conference* North Caroline, November 2011.
- 211) Tractable Notions of Equilibrium in Revenue Management, (with V. Farias and M. Monsch), *Annual Informs Conference* North Caroline, November 2011.
- 212) Consumer Rebates for Solar Technology Adoption (with M. Cohen and R. Lobel), *Annual Informs Conference* North Caroline, November 2011.
- 213) Markdown Pricing for a Fashion e-Tailer; the Impact of Returning Customers, (with Z. Leung and P. Harsha), *Annual Informs Conference* North Caroline, November 2011.
- 214) First-order Spread Information for Minimax Regret Inventory Problems, (with R. Levi and J. Uichanco), *Annual Informs Conference* North Caroline, November 2011.
- 215) Tractable markdown optimization for multiple items under uncertainty, (with P. Harsha), *Annual Informs Conference* North Caroline, November 2011.
- 216) Regret Optimization for Stochastic Inventory Models with Spread (with J. Uichanco and R. Levi), *Annual Informs Conference* North Caroline, November 2011.

- 217) Optimal Contract Design for joint Ventures in the Healthcare Industry (with S. Cong, R. Levi and W. Sun), *Annual Informs Conference* North Caroline, November 2011.
- 218) Network Design under Equilibrium Flow (with G. Romero and R. Levi), *Annual Informs Conference* North Caroline, November 2011.
- 219) Markdown Optimization for a Fashion e-Tailer (with P. Harsha and Z. Leung), *Annual Informs Conference* North Caroline, November 2011.
- 220) Efficiency of a Shared Resource in Service Industries with Differentiated Services (with W. Sun), *Annual Informs Conference* North Caroline, November 2011.
- 221) Consumer Rebates for Solar Technology Adoption (with M. Cohen and R. Lobel), *Annual Informs Conference* North Carolina, November 2011.
- 222) Consumer Subsidies and Industry Response Dynamic under Multi-Period Stochastic Demand (with M. Cohen and R. Lobel), *Annual Informs Conference* North Caroline, November 2011.

2012

- 223) Designing Consumer Subsidies with Industry Response for Green Technology Adoption (with M. Cohen and R. Lobel), MSOM Conference, Columbia University, NYC, June 2012.
- 224) Allocating Subsidies to Minimize a Commodity's Market Price A Network Design Approach (with G. Romero and R. Levi), MSOM Conference, Columbia University, NYC, June 2012.
- 225) Efficiency analysis for service industries with nonlinear demand and congestion effects (with W. Sun), MSOM Conference, Columbia University, NYC, June 2012.
- 226) Efficiency of joint-ventures in the healthcare industry, (with R. Levi, C. Shi and W. Sun), MSOM Conference, Columbia University, NYC, June 2012.
- 227) Efficient scheduling of operations under uncertainty: the case of a US gas utility company, (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad), MSOM Conference, Columbia University, NYC, June 2012.
- 228) Designing Subsidies with Industry Response Dynamics; Commitment vs Flexibility (with M. Cohen and R. Lobel), MSOM Conference, Columbia University, NYC, June 2012.
- 229) First-order Spread Information for Minimax Regret Inventory Problems, (with R. Levi and J. Uichanco), 21st International Symposium on Mathematical Programming (ISMP) Conference, TU Berlin, Berlin, Germany, August 2012.
- 230) Designing Consumer Subsidies with Industry Response for Green Technology Adoption (with M. Cohen and R. Lobel), 21st International Symposium on Mathematical Programming (ISMP) Conference, TU Berlin, Berlin, Germany, August 2012.
- 231) Allocating Subsidies to Minimize a Commodity's Market Price A Network Design Approach (with G. Romero and R. Levi), 21st International Symposium on Mathematical Programming (ISMP) Conference, TU Berlin, Berlin, Germany, August 2012.
- 232) Markdown Optimization for a Fashion e-Tailer; the Impact of Returning Customers (with P. Harsha and Z. Leung), 21st International Symposium on Mathematical Programming (ISMP) Conference, TU Berlin, Berlin, Germany, August 2012.
- 233) Designing Consumer Subsidies with Industry Response for Green Technology Adoption (with M. Cohen and R. Lobel), Annual INFORMS Conference, Arizona, October 2012.
- 234) Multi-Period Price Optimization for Grocery Retailers (with M. Cohen, Z. Leung, K. Panchamgam and A. Vakhuntinsky), Annual INFORMS Conference, Arizona, October 2012.
- 235) Promotion Optimization for Grocery Retailers, Retailers (with M. Cohen, Z. Leung, K. Panchamgam and A. Vakhuntinsky), Annual INFORMS Conference, Arizona, October 2012.
- 236) Allocating Subsidies to Minimize a Commodity's Market Price A Network Design Approach (with G. Romero and R. Levi), Annual INFORMS Conference, Arizona, October 2012.
- 237) Efficiency analysis for service industries with nonlinear demand and congestion effects (with W. Sun), Annual INFORMS Conference, Arizona, October 2012.
- 238) Efficiency of joint-ventures in the healthcare industry, (with R. Levi, C. Shi and W. Sun), Annual INFORMS Conference, Arizona, October 2012.

- 239) Efficient scheduling of operations under uncertainty: the case of a US gas utility company, (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad), Annual INFORMS Conference, Arizona, October 2012.
- 240) Bounded Rationality in Strategic Interactions in Supply Chain, (with B. Kalkanci), Annual INFORMS Conference, Arizona, October 2012.
- 241) Dynamic model of quality-based competition between suppliers, (with R. Levi and J. Uichanco), Annual INFORMS Conference, Arizona, October 2012.
- 242) Designing Subsidies with Industry Response Dynamics; Commitment vs Flexibility (with M. Cohen and R. Lobel), Annual INFORMS Conference, Arizona, October 2012.
- 243) Efficient scheduling of operations under uncertainty: the case of a US gas utility company, (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad), first MIT 'Building Networked Collaborations' conference, October 2012.
- 244) Markdown Optimization for a Fashion e-Tailer; the Impact of Returning Customers (with P. Harsha and Z. Leung), invited Seminar at NYU Stern, October 2012.
- 245) Markdown Optimization for a Fashion e-Tailer (with P. Harsha and Z. Leung), invited Seminar at BAMS group at Watson IBM Research, T. J. Watson NY, November 2012.
- 246) Stochastic Optimization for Resource Allocation with Random Emergencies; (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad) ,2nd Workshop on Optimization: Computation, Theory and Modeling, December 2012.
- 247) Markdown Optimization for a Fashion e-Tailer; the Impact of Returning Customers (with P. Harsha and Z. Leung), invited Seminar at SUTD in Singapore, December 2012.

2013

- 248) Consumer Subsidies for green technology adoption, presented at the MITEI Operating Committee, March 2013, also presented at the MITEI Advisory Board, October 2013.
- 249) Promotion Optimization for Supermarkets, (with M. Cohen. Z. Leung, K. Panchamgam, A. Smith), Invited Talk at Workshop at LBS on Collaborative Academic/Practitioner Workshop, July 2013.
- 250) How Consumers Shop Online; Data, Models and Pricing Decisions, (with Z. Leung and P. Harsha), Annual Conference of the *Inform Section on Pricing and Revenue Management*, GTech, Atlanta, June 2013.
- 251) The Impact of Optimization on Promotion Planning, Revenue Management, (with M. Cohen. Z. Leung, K. Panchamgam, A. Smith), Annual Conference of the *Inform Section on Pricing and Revenue Management*, GTech, Atlanta, June 2013 and *MSOM Conference* and INSEAD France, July 2013.
- 252) Designing Subsidies with Industry Response: Commitment vs Flexibility, (with M. Cohen, J. Chemama, R. Lobel), *MSOM Conference*, INSEAD France, July 2013.
- 253) The Effectiveness of Uniform Subsidies to Incentivize Demand, (with G. Romero and R. Levi), *MSOM Conference*, INSEAD France, July 2013.
- 254) Bounded Rationality in Strategic Interactions (with B. Kalkanci), *MSOM Conference*, INSEAD France, July 2013.
- 255) Business analytics for flexible scheduling of service operations under random emergencies, (with M. Angalakudati, S. Balwani, J. Calzada, B. Chatterjee, J. Uichanco, N. Raad), *MSOM Conference*, INSEAD France, July 2013.
- 256) Invited Lecturer at a Summer School at Zinal Switzerland, September 2013.
- 257) The Impact of Competition in Green Technology Adoption (with M. Cohen and C. Thraves), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 258) Bounded Rationality in Strategic Interactions (with B. Kalkanci), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 259) The Impact of Promotion Optimization, (with M. Cohen. Z. Leung, K. Panchamgam, A. Smith), Annual INFORMS Conference, Minneapolis, MN, October 2013.

- 260) Promotion Optimization with Multiple Vehicles, (with M. Cohen, Z. Leung, K. Panchamgam, A. Smith), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 261) Efficiency of Supply Chains Under Imperfect Competition and Nonlinear Demand (with W. Sun), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 262) Predicting damage for major storms; a data driven approach (with V. Farias, M. Monsch, A. Papush, and S. Whipple from MIT and M. Angalakudati, J. Calzada, J. Gonynor, N. Raad, J. Schein, C. Warren, J. Williams from Nationalgrid), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 263) How Consumers Shop Online; Data, Models and Pricing Decisions, (with Z. Leung and P. Harsha), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 264) The Power of Uniform Subsidies to Incentivize Demand – Optimal and Near-Optimal Results, (with G. Romero and R. Levi), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 265) Discounted Referral Pricing between Healthcare Networks, (with F. Bravo, A. King, R. Levi, G. Romero), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 266) Managing Quality Risk and Shortage Risk in Outsourcing (with J. Uichanco and Levi), Annual INFORMS Conference, Minneapolis, MN, October 2013.
- 267) Designing Subsidies with Industry Response: Commitment vs Flexibility, (with M. Cohen, J. Chemama, R. Lobel), Annual INFORMS Conference, Minneapolis, MN, October 2013.