

Aurélie C. Thiele

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Education

- **PhD in Electrical Engineering and Computer Science**, June 2004.
Massachusetts Institute of Technology, Cambridge, MA (September 2000-June 2004)
Dissertation title: *A robust optimization approach to supply chains and revenue management*.
Dissertation advisor: Professor Dimitris J. Bertsimas, Sloan School of Management and Operations Research Center.
Dissertation committee members: Professor Tom Magnanti, Department of Electrical Engineering and Computer Science, Professor Georgia Perakis, Sloan School of Management, and Professor John Tsitsiklis, Department of Electrical Engineering and Computer Science.
- **Master of Science in Electrical Engineering and Computer Science**, September 2000.
Massachusetts Institute of Technology, Cambridge, MA (September 1999-August 2000)
Thesis title: *Potential-driven flows in capacitated networks*
Thesis advisor: Professor George C. Verghese, Department of Electrical Engineering and Computer Science.
- **Diplôme d'ingénieur, summa cum laude**, June 1999.
Ecole des Mines de Paris, Paris, France (September 1996-June 1999)
Field of concentration: systems and control.
Thesis title: *Synthesis of control laws using Lyapunov functions for devices with strapdown guidance systems*.
Thesis advisors: Professor Laurent Praly, Ecole des Mines de Paris and Dr Hélène Piet-Lahanier, French National Research Center in Aerospace.

Employment History

- **Assistant Professor** in Industrial and Systems Engineering, Lehigh University, Bethlehem, PA, August 2004-present. (P.C. Rossin Assistant Professor, September 2006-August 2008)
- **Research and Teaching Assistant**, Massachusetts Institute of Technology, Cambridge, MA, September 1999-June 2004.
- **Intern**, French National Office of Studies and Research in Aerospace (ONERA), Chatillon (France), March 1999-July 1999.
- **Intern**, Deutsche Flugsicherung (German air traffic control agency), Frankfurt (Germany), June 1998-August 1998.
- **Intern**, Compaq, Glasgow (UK), February 1997.

Publications

My policy is to give first authorship to my graduate students, who are identified by an asterisk below.

Refereed book chapters

In print or to appear:

1. G. Metan*, A. Thiele, "A dynamic and data-driven approach to the news vendor problem under seasonal demand", in P. Pardalos, K. Furman and W. Chaovalitwongse, editors, *Optimization and Logistics Challenges in the Enterprise*, pp.277-304, Springer, New York, 2009.
2. D. Bertsimas, A. Thiele, "Robust and data-driven optimization: modern decision-making under uncertainty", in M. Johnson, B. Norman and N. Secomandi, editors, *Tutorials on Operations Research*, Chapter 4, pp.95-122, INFORMS, Hanover, MD, 2006.

Refereed journal publications

In print or to appear:

3. B. Kawas*, A. Thiele, "A log-robust optimization approach to portfolio management," to appear in *OR Spectrum*, 2009; published online in January 2009, doi: 10.1007/s00291-008-0162-3.
4. A. Thiele, "Multi-product pricing via robust optimization," *Journal of Revenue and Pricing Management*, 8(1): 67-80, 2009.
5. M. Dziecichowicz*, A. Thiele, "Robust selling times in adaptive portfolio management," *Algorithmic Operations Research*, 4(1): 58-69, 2009.
6. A. Thiele, "Pricing with uncertain customer valuations," *Journal of Revenue and Pricing Management*, 7: 196-206, 2008.
7. G. Metan*, A. Thiele, "Protecting the data-driven newsvendor against rare events: a correction-term approach", accepted to *Algorithmic Operations Research* subject to minor revision, August 2008.
8. A. Thiele, "Robust stochastic programming with uncertain probabilities", special issue on models and methods in stochastic programming, *IMA Journal of Management Mathematics*, 19(3): 289-321, 2008. (Invited. Editor's choice, selected to be available for free online.)
9. D. Bertsimas, A. Thiele, "A robust optimization approach to inventory theory", *Operations Research*, (54)1: 150-168, 2006.

Under second-round review

10. A. Thiele, "A note on issues of over-conservatism in robust linear optimization with uncertain cost coefficients," for *Optimization*, submitted May 2007, revised June 2009. Minor revision.
11. M. Dziecichowicz*, A. Thiele, Z. Zeng*, "Robust portfolio management with deadlines and budgets of uncertainty", for *OR Spectrum*, submitted March 2007, revised July 2009. Reviewers' recommendations: one minor revision, one major revision.

Under revision for second-round review

12. A. Thiele, "Single-product pricing via robust optimization," for *Operations Research*, submitted January 2006.
13. G. Metan*, A. Thiele, "Scenario design in robust inventory management" (previously: "The value of information in inventory management"), for the *European Journal of Operational Research*, submitted April 2008.
14. R. Myall*, A. Thiele, "Addressing exchange rate uncertainty in operational hedging: a Comparison of Three Risk Measures," for the *Journal of Risk*, submitted March 2007.

Submitted

15. A. Thiele, T. Terry, M. Epelman, "Robust linear optimization with recourse," to *Naval Research Logistics*, March 2009.
16. B. Kawas*, A. Thiele, "Short sales in log-robust portfolio management," to *Computers and Operations Research*, December 2008.
17. B. Kawas*, A. Thiele, "Risk-return tradeoffs in log-robust portfolio management," to the *European Journal of Operational Research*, July 2009.

Working papers

18. D. Caro*, A. Thiele, "Robust timing decisions of markups and markdowns," to be submitted to the *Journal of Revenue and Pricing Management*, August 2009, approx. 20 pages. To be posted on <http://www.optimization-online.org>
19. D. Bertsimas, A. Thiele, "A data-driven approach to newsvendor problems," May 2005, 31 pages. Available online at http://www.optimization-online.org/DB_FILE/2006/11/1518.pdf.

Refereed conference proceedings

In print:

20. G. Metan*, A. Thiele, "Integrated forecasting and inventory control for seasonal demand," Proceedings of the 11th INFORMS Computing Society conference, J. Chinneck, B. Kristjansson and M. Saltzman, editors, *Operations Research and Cyber-Infrastructure*, pp.427-441, Springer, New York, 2009.
21. G. Metan*, A. Thiele, "An adaptive algorithm for the optimal sample size in the non-stationary data-driven newsvendor problem," Proceedings of the 10th INFORMS Computing Society conference, E. Baker, A. Joseph, A. Mehrotra and M. Trick, editors, *Extending the Horizons: Advances in Computing, Optimization, and Decision Technologies*, pp.77-96, Springer, New York, 2007.
22. D. Bertsimas, A. Thiele, "A robust optimization approach to supply chain management," Proceedings of the 10th international conference on integer programming and combinatorial optimization (IPCO X), Springer Lecture Notes on Computer Science, vol. 3064, pp.86-100, Springer, New York, 2004.

Non-refereed conference proceedings

In print:

23. R. Myall*, A. Thiele, "Addressing exchange rate uncertainty in operational hedging: a comparison of three risk measures", Proceedings of the POM Conference, Dallas, TX, May 2007, 35 pages.

Theses

- "A robust optimization approach to supply chains and revenue management", Ph.D. thesis, MIT, June 2004.
- "Potential-driven flows in capacitated networks", S.M. thesis, MIT, August 2000.
- "Elaboration et analyse de lois de guidage-pilotage sous contrainte de ligne de visée pour des missiles équipés d'autodirecteur strapdown" (in French), "diplome d'ingénieur" thesis, Ecole Nationale Supérieure des Mines de Paris, June 1999.

Awards and Distinctions

Awards received by researcher

- **IBM Faculty Award in Service Sciences**, Management and Engineering, 2007. (One out of only fifteen awarded worldwide.) \$34,000.
- **P.C. Rossin Assistant Professorship**, Lehigh University, 2006-2008. \$20,000. Recognizes junior faculty members who show high potential for a successful academic career through the integration of research and teaching.
- **Phi Beta Delta** (the Honor Society for International Scholars), inducted 2005.
- **Sigma Xi** (the Scientific Research Society), inducted 2004.
- **First prize**, George E. Nicholson student paper competition, for “A robust optimization approach to supply chain management”, INFORMS annual meeting 2003. Recognizes the most outstanding paper written by a graduate student in operations research and management sciences.

Awards received by students

- **Finalist**, IBM PhD Fellowship, 2009: Ban Kawas.
- **Rossin Doctoral Fellowship**, 2009-2010: Ban Kawas.
- **Third place**, Undergraduate Research Symposium, 2008: Christopher Barrett and Victoria Berenholz for their project “Portfolio Management under Downside Risk Measures.”
- **Participant (by nomination)**, Undergraduate Research Symposium: Ipek Ozkanoglu, 2006, for her project “Subscriber Seating at Zoellner Arts Center”, and Phoebe Lai, 2009, for her project “Robust Resource Allocation and Capacity Expansion.”

Funded Research

Past and current grants

- “**Robust Portfolio Management with Uncertain Compounded Rates of Return**,” funded by the National Science Foundation (7/1/2008-6/30/2011). Single PI. Award amount: \$199,964.
- “**Data-Driven Adaptive Forecasting and Inventory Control**,” with Dr. Kevin Taaffe, Clemson University, funded by the National Science Foundation’s Center for Engineering Logistics and Distribution (CELDi) (8/1/2008-7/31/2009). Co-PI. Total award amount (no overhead): \$99,981. Amount awarded to Lehigh University: \$44,516.
- “**Robust and Adaptive Lending with Credit Risk**,” funded by International Business Machines (IBM) (11/1/2007-10/31/2008). Single PI. Award amount (gift without overhead): \$34,000. Received in conjunction with the IBM Faculty Award.
- “**Robustness and Performance in Data-driven Revenue Management**,” funded by the National Science Foundation (1/1/2006-12/31/2009 including one-year no-cost extension). Single PI. Award amount: \$262,000.

Pending proposals

- “**A Cross-Disciplinary PhD program in computational modeling of complex uncertain systems**,” to the National Science Foundation. Joint proposal between the Department of Industrial and Systems Engineering and the Department of Mathematics at Lehigh University. Co-PI among 8 ISE faculty members and 6 Math faculty members. Budget: \$3,121,232.00.
- “**CAREER: Robust Optimization and Risk with Financial Applications**,” to the National Science Foundation, July 2009. Single PI. Budget: \$400,000.

Presentations

The presenting author is listed first.

Invited talks at conferences

1. B. Kawas, A. Thiele, "Derivatives in log-robust portfolio management," INFORMS Annual Meeting, San Diego, CA, October 2009.
2. A. Thiele, B. Kawas, "Log-robust portfolio management," ISMP (International Symposium for Mathematical Programming), Chicago, IL, August 2009.
3. A. Thiele, B. Kawas, "Log-robust portfolio management," CORS-INFORMS (Canadian Operational Research Society – Institute for Operations Research and Management Sciences) International Meeting, Toronto, Canada, June 2009.
4. A. Thiele, B. Kawas, "A log-robust approach to portfolio management," INFORMS Annual Meeting, Washington, DC, October 2008.
5. A. Thiele, B. Kawas, "Short sales and derivatives in log-robust portfolio management," INFORMS Annual Meeting, Washington, DC, October 2008.
6. A. Thiele, "Pricing via robust optimization," INFORMS Annual Meeting, Washington, DC, October 2008.
7. A. Thiele, G. Metan, "Integrated scenario design and inventory control," INFORMS Annual Meeting, Washington, DC, October 2008.
8. G. Metan, A. Thiele, "The value of information in inventory management," INFORMS Annual Meeting, Seattle, Washington, November 2007.
9. R. Myall, A. Thiele, "Contracts in the risk-averse supply chain," INFORMS Annual Meeting, Seattle, Washington, November 2007.
10. M. Dzielickowicz, A. Thiele, "Adaptive portfolio management," ICCOPT-MOPTA (International Conference on Continuous Optimization – Modeling and Optimization: Theory and Applications), Hamilton, Ontario, August 2007.
11. D. Bertsimas, A. Thiele, "Modern decision-making under uncertainty: robust and data-driven optimization", INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
12. A. Thiele, "Robust optimization in pricing", INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
13. A. Thiele, "Robust revenue management with dynamic budgets of uncertainty", INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
14. A. Thiele, "Dynamic and data-driven revenue management under uncertainty", INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
15. A. Thiele, "Robust inventory management and piecewise linear optimization", INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
16. A. Thiele, "The robust newsvendor with multiple products," CORS (Canadian Operational Research Society) Annual Meeting, Montréal, Québec, Canada, May 2006.
17. A. Thiele, "Robust linear optimization with recourse", INFORMS Annual Meeting, San Francisco, California, November 2005.
18. A. Thiele, "Robust dynamic pricing", INFORMS Annual Meeting, San Francisco, California, November 2005.
19. A. Thiele, "Robust dynamic pricing", IFORS Triennial Meeting, Hawaii, Honolulu, July 2005.
20. A. Thiele, "Robust dynamic pricing: a distribution-free approach", CORS Annual Meeting, Halifax, Nova Scotia, Canada, May 2005.
21. A. Thiele, D. Bertsimas, "Data-driven revenue management", INFORMS Annual Meeting, Denver, Colorado, October 2004.
22. A. Thiele, D. Bertsimas, "Data-driven inventory management", INFORMS Annual Meeting, Denver, Colorado, October 2004.

23. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management", INFORMS Annual Meeting, Atlanta, Georgia, October 2003. (**First prize in the George E. Nicholson paper competition**).
24. A. Thiele, D. Bertsimas, "Applications of robust optimization to supply chains and revenue management", INFORMS Annual Meeting, Atlanta, Georgia, October 2003.

Invited talks at seminars and workshops

1. A. Thiele, B. Kawas, "Log-robust portfolio management," Penn State University, Department of Industrial Engineering and Operations Research, March 2009.
2. A. Thiele, B. Kawas, "Log-robust portfolio management," Lehigh University, Department of Industrial and Systems Engineering, March 2009.
3. A. Thiele, G. Metan, "Integrated scenario design and robust inventory control for new products," University of Michigan, Ross School of Business, June 2008.
4. A. Thiele, G. Metan, "The value of information in inventory management under uncertainty," Penn State University, Department of Industrial Engineering and Operations Research, October 2007.
5. A. Thiele, "Robust and data-driven inventory management," Rutgers University, Department of Industrial and Systems Engineering, December 2006.
6. A. Thiele, "The case for a robust optimization approach in revenue management," Air Products, Allentown, PA, August 2006.
7. A. Thiele, "Maximiser le revenu grâce à l'optimisation robuste" (in French) Air France, Paris, France, May 2006.
8. A. Thiele, "Revenue management under uncertainty: the case for a robust optimization approach," Penn State University, Department of Industrial Engineering and Operations Research, April 2006.
9. A. Thiele, "Dynamic and data-driven pricing under uncertainty," DIMACS/ExxonMobil workshop on computational optimization and logistics challenge in the enterprise, Annandale, New Jersey, April 2006.
10. A. Thiele, "Robust optimization: models, algorithms and applications in revenue management," Columbia University, Department of Industrial Engineering and Operations Research and division of Decision, Risk and Operations at the Graduate School of Business (joint talk), September 2005.
11. A. Thiele, "Tutorial on revenue management," Lehigh University, Department of Industrial and Systems Engineering, November 2004.
12. D. Bertsimas, A. Thiele, "Robust optimization: A tractable approach to optimization under uncertainty," Columbia University, Department of Industrial Engineering and Operations Research and division of Decision, Risk and Operations at the Graduate School of Business (joint talk), September 2004.
13. D. Bertsimas, A. Thiele, "Robust optimization: A tractable approach to optimization under uncertainty," Centre National de la Recherche Scientifique (CNRS), Laboratoire d'Analyse et d'Architecture des Systèmes, Toulouse, France, October 2004.
14. D. Bertsimas, A. Thiele, "Robust optimization: A tractable approach to optimization under uncertainty," Technische Universität Berlin, Institut für Mathematik, Berlin, Germany, October 2004.
15. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of North Carolina at Chapel Hill, Kenan-Flagler Business School, January 2004.
16. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," Princeton University, Department of Operations Research and Financial Engineering, February 2004.

17. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," New York University, Stern School of Business, February 2004.
18. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Virginia, Department of Systems Engineering, February 2004.
19. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of British Columbia, Sauder School of Business, February 2004.
20. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," Lehigh University, Department of Industrial and Systems Engineering, February 2004.
21. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," Texas A&M, Department of Industrial Engineering, March 2004.
22. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Illinois at Urbana-Champaign, Department of Mechanical and Industrial Engineering, March 2004.
23. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of California-Berkeley, Department of Industrial Engineering and Operations Research, March 2004.
24. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Michigan, Ross School of Business, March 2004.
25. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Minnesota, Department of Mechanical and Industrial Engineering, March 2004.
26. D. Bertsimas, M. Sim, A. Thiele, "Robust discrete and dynamic optimization," IMA Workshop on Semidefinite Programming and Robust Optimization, Minneapolis, Minnesota, March 2003.
27. D. Bertsimas, M. Sim, A. Thiele, "Robust optimization: A tractable theory of stochastic optimization", Massachusetts Institute of Technology, Laboratory of Computer Science, Department of Electrical Engineering and Computer Science, Cambridge, Massachusetts, February 2003.
28. D. Bertsimas, M. Sim, A. Thiele, "Robust optimization: A tractable theory of stochastic optimization", New York University, Leonard N. Stern School of Business, March 2004.
29. D. Bertsimas, M. Sim, A. Thiele, "Robust optimization: A tractable theory of stochastic optimization", 4th Annual McMaster Optimization Conference: Theory and Applications (MOPTA 04), July 2004.
30. D. Bertsimas, M. Sim, A. Thiele, "Robust discrete, dynamic optimization and network flows", IMA Workshop on Computational Methods for Large-Scale Integer Programs, Minneapolis, Minnesota, October 2002.
31. D. Bertsimas, M. Sim, A. Thiele, "Robust discrete, dynamic optimization and network flows", University of California-Berkeley, Electrical Engineering and Computer Science Department Distinguished Lecture Series, Berkeley, California, October 2002.

Sessions organized and chaired

- "Robust optimization in finance", ISMP Triennial Conference 2009, Robust Optimization cluster.
- "Topics in Pricing", INFORMS Annual Meeting, 2008, Dynamic Pricing and Revenue Management cluster.
- "Robust and risk-averse revenue management", INFORMS Annual Meeting, 2007, Dynamic Pricing and Revenue Management cluster.
- "Robust revenue management", INFORMS Annual Meeting, 2006, Dynamic Pricing and Revenue Management cluster.

- “Risk and uncertainty in revenue management”, INFORMS Annual Meeting, 2006, Pricing and Forecasting cluster.
- “Robust revenue management”, INFORMS Annual Meeting, 2005, Dynamic Pricing and Revenue Management cluster.
- “Robust optimization with recourse”, INFORMS Annual Meeting, 2005, Optimization cluster.
- “Recent advances in dynamic pricing”, IFORS Triennial Conference 2005, Dynamic Pricing and Revenue Management cluster.
- “Robust revenue management”, INFORMS Annual Meeting 2004, Dynamic Pricing and Revenue Management cluster.

Contributed talks

(*) denotes conferences which do not have invited sessions.

1. B. Kawas, A. Thiele, “Log-robust portfolio management,” MOPTA (Modeling and Optimization: Theory and Applications) conference, Bethlehem, Pennsylvania, August 2009.
2. A. Thiele, B. Kawas, “Short sales in log-robust portfolio management,” INFORMS Computing Society conference, Charleston, South Carolina, January 2009. (*)
3. A. Thiele, G. Metan, “Integrated forecasting and inventory control for seasonal demand,” INFORMS Computing Society conference, Charleston, South Carolina, January 2009. (*)
4. Y.-J. Tsai, A. Thiele, “Robust dynamic pricing of perishable products using RiskOptimizer,” Palisade Live Webcast, March 2008. (*)
5. Y.-J. Tsai, A. Thiele, “Robust Dynamic Pricing of Perishable Products using RiskOptimizer,” 2007 Palisade User Conference (North America), Miami Beach, October 2007. (*)
6. R. Myall, A. Thiele, “Addressing exchange rate risk in operational hedging,” Production and Operations Management Society (POMS) annual meeting, Dallas, Texas, May 2007.
7. G. Metan, A. Thiele, “An adaptive algorithm for the optimal sample size in the non-stationary data-driven newsvendor problem,” INFORMS Computing Society conference, Coral Gables, Florida, January 2007.
8. R. Myall, A. Thiele, “Measuring risk in operational hedging”, INFORMS annual meeting, Pittsburgh, Pennsylvania, November 2006.
9. G. Metan, A. Thiele, “The non-stationary data-driven newsvendor problem”, INFORMS annual meeting, Pittsburgh, Pennsylvania, November 2006.
10. A. Thiele, “Robust revenue management with dynamic budgets of uncertainty”, INFORMS conference on Manufacturing and Service Operations Management (MSOM), Atlanta, Georgia, June 2006. (refereed) (*)
11. A. Thiele, “Robust revenue management with dynamic budgets of uncertainty”, INFORMS 6th annual revenue management and pricing subdivision conference, New York City, New York, June 2006. (*)
12. A. Thiele, “Robust multiperiod pricing”, INFORMS 5th annual revenue management and pricing subdivision conference, Cambridge, Massachusetts, June 2005. (*)
13. A. Thiele, D. Bertsimas, “A data-driven approach to newsvendor problems”, POMS (Production and Operations Management Society) 1st annual conference on operations management in service, New York, New York, December 2004. (*)
14. A. Thiele, D. Bertsimas, “Data-driven revenue management”, INFORMS 4th annual revenue management and pricing subdivision conference, Cambridge, Massachusetts, June 2004. (*)
15. A. Thiele, D. Bertsimas, “Robust revenue management”, INFORMS 3rd annual revenue management and pricing subdivision conference, New York, New York, June 2003. (*)

16. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," presented at the INFORMS annual meeting, San Jose, California, November 17-20, 2002.

Poster presentations

- "Robust Portfolio Management with Uncertain Compounded Rates of Return": National Science Foundation CMMI (Division of Civil, Mechanical and Manufacturing Innovation) grantees conference, Honolulu, HI, June 2009.
- "Robustness and Performance in Data-driven Revenue Management":
 - National Science Foundation CMMI (Division of Civil, Mechanical and Manufacturing Innovation) grantees conference, Honolulu, HI, June 2009.
 - National Science Foundation CMMI (Division of Civil, Mechanical and Manufacturing Innovation) grantees conference, Knoxville, TN, January 2008.
 - National Science Foundation DMI (Design, Manufacture and Innovation directorate) grantees conference, Saint Louis, MO, July 2006.
- "Data-Driven Adaptive Forecasting and Inventory Control":
 - CELDi (Center for Engineering Logistics and Distribution) Spring conference, Charlotte, NC, April 2009.
 - CELDi (Center for Engineering Logistics and Distribution) Fall conference, Dallas, TX, October 2008.

Workshops attended

- "Dynamic Data-Driven Application Systems: New directions for applications, simulations and measurement methodology," National Science Foundation, January 19-20, 2006. (By invitation only.)
- DIMACS workshop on Computational Optimization and Logistics Challenges in the Enterprise (COLCE), April 19-20, 2006.

Teaching Experience

Courses taught at Lehigh University:

- IE 316: Advanced Operations Research Techniques (Fall 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2008)
- IE 406: Introduction to Mathematical Programming (Fall 2008)
- IE 417: Nonlinear Programming (Fall 2007)
- IE 426: Optimization Models and Applications (Fall 2004)
- IE 441: Financial Engineering Project (Fall 2007, Spring 2008)
- IE 447: Stochastic Programming with Financial Applications (Spring 2006, Spring 2007, Spring 2009)
- IE 495: Stochastic Programming with Management Applications (Spring 2005)

In the table below, **“Instructor’s Teaching”** refers to students’ ratings of: Overall, the instructor’s teaching was effective. **“Quality of Course”** refers to students’ ratings of: Overall, the quality of the course was good.

The highest score is 5.0 and means “strongly agree.” 4.0 means “agrees somewhat”, 3.0 “neutral”, 2.0 “disagree somewhat” and 1.0 “strongly disagree.” F stands for Fall semester and S for Spring.

Shaded rows correspond to courses where the course average exceeded department average. Independent-study projects and theses do not have course evaluations.

Table 1 Summary of course evaluations

Course	Semester	Enrollment	Instructor’s Teaching			Quality of Course		
			Course Average	Department Average	College Average	Course Average	Department Average	College Average
IE 316	F04	48	3.93	4.19	3.98	4.10	4.20	3.96
	F05	34	4.70	4.28	4.06	4.61	4.29	4.02
	F06	34	4.59	4.28	4.17	4.41	4.27	4.16
	F07	25	4.91	4.29	4.25	4.91	4.28	4.25
	F08	46	4.75	4.25	4.16	4.73	4.24	4.17
IE 406	F08	10	4.70	4.25	4.16	4.30	4.24	4.17
IE 417	F07	18	4.33	4.29	4.25	4.27	4.28	4.25
IE 426	F04	17	4.27	4.19	3.98	4.40	4.20	3.96
IE 441	F07	13	3.89	4.29	4.25	4.00	4.28	4.25
	S08	3	5.00	4.22	4.20	5.00	4.22	4.17
IE 447	S06	29	3.96	4.15	4.11	3.59	4.10	4.06
	S07	20	4.12	4.22	4.10	4.24	4.25	4.12
	S09	40	4.29	4.19	4.13	4.29	4.22	4.12
IE 495	S05	23	4.81	4.27	4.07	4.81	4.14	4.06

Student Advising

Graduated students

Undergraduate:

The following students have performed an independent-study project (IE 321) under my supervision, either by themselves or in groups of two.

1. Sara Ellis (Class of 2007, Summer 2006)
2. Ipek Ozkanoglu (Class of 2007, Fall 2006)
3. Jordan Anderson (Class of 2007, Spring 2007)
4. John Forti (Class of 2007, Spring 2007)
5. Kara Stauffer (Class of 2007, Spring 2007)
6. Christopher Barrett (Class of 2008, Fall 2007)
7. Victoria Berenholz (Class of 2008, Fall 2007)
8. Ian Williams (Class of 2008, Fall 2007)
9. John Conner (Class of 2008, Spring 2008)
10. Justin Panicker (Class of 2008, Spring 2008)
11. Lisa Willard (Class of 2008, Spring 2008)
12. Daniel Figa (Class of 2008, Summer 2008)
13. Robert Cant (Class of 2009, Spring 2009)
14. Ilya Kipnis (Class of 2009, Spring 2009)
15. Phoebe Lai (Class of 2010, Spring 2009)

Master's:

'Now' refers to students' employment immediately following graduation.

1. Kursad Derinkuyu (M.S., May 2006) Non-thesis program. *Now a PhD student at the University of Texas at Austin.*
2. Chach Wanapat (M.S., September 2006) Thesis title: "The impact of transaction costs on active portfolio management, index tracking and mixed strategies." *Now an employee at Bank of Thailand.*
3. Muhannad al Najjab (M.S., May 2007) Thesis title: "The robustness of pricing models for European call options." *Now an employee at Ernst & Young, New York, NY.*
4. Yu-Jiun Tsai (M.S., September 2007) Thesis title: "Robust dynamic pricing for perishable items." *Now a PhD student at Pennsylvania State University.*
5. Zhongzhong Zeng (M.S., September 2007) Non-thesis program. *Current employment situation unknown.*
6. Joseph Curatolo (M.S., May 2008) Thesis title: "Mortgage refinancing under uncertainty: switching from adjustable-rate to fixed-rate." *Now an analyst at Goldman Sachs, New York, NY.*
7. Kuo-Wei Chen (M.S., May 2008) Thesis title: "Joint plant capacity expansion and financing under demand uncertainty." *Now a PhD student at the University of Washington at Seattle.*
8. Daniela Caro (M.S., May 2009) Project title: "Robust decision times for markups and markdowns." *Now an employee at BBraun Medical Devices, Bethlehem, PA.*

Doctoral:

1. Gokhan Metan (entered program August 2004, graduated May 2008) Dissertation title: "Robust and data-driven inventory management: Theory and algorithms." *Now an Operations Research Analyst at American Airlines, Dallas, TX.*

Current students

Undergraduate:

1. Phoebe Lai (Class of 2010, Spring 2009-present)
2. Ana Alexandrescu (Class of 2010, Summer 2009-present)

Master's:

1. None at the moment.

Doctoral:

1. Michael Dziecichowicz (entered program Fall 2004, advised since Summer 2005) Robust decision times. *Expected graduation date: December 2010.*
2. Rockey Myall (entered program Fall 2004, advised since Summer 2005) Risk aversion in operations management. *Doctoral candidate. Expected graduation date: August 2010.*
3. Ban Kawas (entered program Fall 2006, advised since Summer 2007) Log-robust portfolio management. *Doctoral candidate. Expected graduation date: May 2010.*
4. Ruken Duzgun (entered program Fall 2007, advised since Summer 2009) Topic TBD.

Dissertation committees

I am currently serving or have served on the doctoral dissertation committee of:

1. Nuri Ozbay (Columbia University, IEOR department). Graduated September 2006.
2. Manisra Baramichai (Lehigh University, ISE department) Graduated September 2007.
3. Kamonkan Laksana (Lehigh University, ISE department) Graduated September 2007.
4. Amanda Schmitt (Lehigh University, ISE department). Graduated May 2008.
5. Jason Derenick (Lehigh University, CSE department). Graduated May 2009.
6. Banu Gemici (Lehigh University, ISE department). Graduated May 2009.
7. Tara Terry (U.Michigan, IEOR department). Expected graduation: September 2009.
8. Zumbul Bulut (Lehigh University, ISE department)
9. Scott deNegre (Lehigh University, ISE department)
10. Stephen Mansour (Lehigh University, ISE department)
11. Zhenlei Shen (Lehigh University, ECE department)
12. Yang Yang (Lehigh University, ECE department)

Service and Professional Memberships

Reviewer

Journals:

1. *Operations Research* (2002-present). Reviewed 11 times since 2005. Also reviewed several times in 2002-2004 before the online review system Manuscript Central was used.
2. *Manufacturing and Service Operations Management* (2003-present) Reviewed 8 times since 2006. Also reviewed several times in 2003-2005.
3. *Naval Research Logistics* (2004-present) Reviewed 7 times.
4. *European Journal of Operational Research* (2007-present) Reviewed 5 times.
5. *INFORMS Journal on Computing* (2006-present). Reviewed twice.
6. *International Journal of Control* (2009) Reviewed once.
7. *Transportation Research E* (2009) Reviewed once.
8. *Annals of Operations Research* (2009) Reviewed once.
9. *SIAM Journal on Optimization* (2009) Reviewed once.
10. *Computational Optimization and Applications* (2009) Reviewed once.
11. *Computational Management Science* (2008) Reviewed once.
12. *Management Science* (2007) Reviewed once.

13. *IEEE Transactions on Automatic Control* (2007) Reviewed once.
14. *Optimization Methods and Software* (2007) Reviewed once.
15. *IBM Systems Journal* (2007) Reviewed once.
16. *Networks* (2005) Reviewed once.

Conferences:

1. IEEE Control Systems Society Conference (2007).
2. International Symposium on Theoretical Aspects of Computer Science (2006).

Grant proposals:

Panelist for National Science Foundation, 2006 and 2009.

National service

Member of Public Information Committee (committee dedicated to raising the general public's understanding of operations research), Institute for Operations Research and Management Sciences.

Local service

Judge for the Lehigh Valley Science and Engineering Research Fair (2008-present).

University service

- Panelist for CHOICES (Charting Horizons and Opportunities in Careers in Engineering and Science) event on women engineers (Summer 2009)
- Member of organization committee of MOPTA (Modeling and Optimization: Theory and Applications) conference (Fall 2008 – Spring 2009)
- Member of faculty search committee, Department of Industrial and Systems Engineering, Lehigh University (Fall 2008 – Spring 2009)
- Member of chair search committee, Department of Industrial and Systems Engineering, Lehigh University (Fall 2007 – Spring 2008)
- Coordinator of ISE seminar series (2007-present)
- Faculty coordinator for Lehigh University student team, Case Study Competition at Rutgers University (2007-present)
- Faculty representative on the ISE Council (2007-present)
- Affiliated faculty member of COR@L (Computational Optimization Research at Lehigh) group (2009-present)
- Affiliated faculty member of the Center of Value Chain Research at Lehigh (2004-present)
- Panelist for SWE (Society of Women Engineers) event on women engineers (Fall 2007)
- Mentor for Lehigh minority students (2007-present)
- Faculty facilitator for Lehigh's First-Year Experience program (2007-present)
- Academic advisor for first-year engineering students (2006-present)
- Member of faculty search committee, Department of Mathematics, Lehigh University (Fall 2006 – Spring 2007)
- Pro bono study of sales and pricing at Zoellner Arts Center to identify revenue management opportunities (Fall 2005 – Spring 2007)

Media

- Interviewee for SWE (Society of Women Engineers) video about women in engineering, distributed to middle school students (Fall 2006).

- Interviewee for Resolve magazine (the magazine of the College of Engineering at Lehigh University): Volume 1, 2008 on own research and Volume 2, 2008 on MS program in analytical finance.

Professional memberships

Member of:

- The Institute for Operations Research and the Management Sciences (INFORMS)
- The Mathematical Programming Society (MPS)