

## Aurélie C. Thiele

Southern Methodist University  
Department of Engineering Management, Information and Systems  
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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.

### Certifications

**Certified Healthcare Financial Professional**, delivered by the Healthcare Financial Management Association (HFMA), August 2013-present.

### Employment History

- **Associate Professor** in Engineering Management, Information and Systems, with tenure, ***Southern Methodist University***, Dallas, TX, August 2016-present.
- **Associate Professor** in Industrial and Systems Engineering, with tenure, ***Lehigh University***, Bethlehem, PA, May 2010-July 2016.
- **Visiting Associate Professor**, ***Massachusetts Institute of Technology***, Sloan School of Management, Cambridge, MA, August 2014-July 2015. (On sabbatical from Lehigh University.)
- **Co-Director** of the Master of Science Program in Analytical Finance, ***Lehigh University***, Bethlehem, PA, September 2012-present.

- **Invited Visiting Associate Professor** in Computer Science, Laboratory for Analysis and Modeling to Aid Decision-Making/Laboratoire d'Analyse et de Modélisation d'Aide à la Recherche (LAMSADE), *Paris-Dauphine University*, Paris, France, June 2012 and June 2013.
- **Assistant Professor** in Industrial and Systems Engineering, *Lehigh University*, Bethlehem, PA, August 2004-May 2010. (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.

## Research Interests

Analytics. Pricing and revenue management. Decision-making under high uncertainty. Risk management. Design of healthcare financing systems. Robust optimization. Portfolio management.

## 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.
- **Finalist**, IIE Excellence in Teaching Operations Research Award, 2010.
- **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

#### National

- **Honorable Mention**, Student Paper Competition, Financial Services Section of the Institute for Operations Research and Management Sciences (INFORMS), 2014: Yang Dong.
- **Finalist**, Student Paper Competition, Undergraduate Operations Research Paper Competition of INFORMS, 2013: Rebecca Swaszek.
- **Finalist**, Student Paper Competition, Financial Services Section of INFORMS, 2010: Ban Kawas.
- **Awardee**, International Research and Education in Engineering (IREE) Fellowship, National Science Foundation, 2010: Michael Dziecichowicz.
- **Finalist**, IBM PhD Fellowship, 2009: Ban Kawas.

## University

- **Honorable Mention**, van Hoesen Family Best ISE Publication Award, 2015: Jillian Sloand for her project “Assessing the Financial Viability of Stratified Medicine.”
- **Participants**, University Symposium, 2013: Tengjiao Xiao, Shuyi Wang, Brittany Rasmussen and Rebecca Swaszek, selected as a group. (Selected to showcase 1 of 6 student posters representing P.C. Rossin College of Applied Sciences and Engineering.)
- **Nominee (by department)**, Elizabeth V. Stout Dissertation Award, 2012: Ruken Duzgun for her dissertation “Robust Optimization with Multiple Ranges and Chance Constraints.”
- **Honorable Mention**, Undergraduate Research Symposium, 2011: Katherine Glass-Hardenbergh and Sushan Zheng for their project “Bond Management under Uncertainty.”
- **Participant**, University Symposium, 2011: Ruken Duzgun. (Selected to be 1 of 6 students representing P.C. Rossin College of Applied Sciences and Engineering.)
- **Honorable Mention**, Poster Competition at the Center for Value Chain Research Spring Conference, 2010: Phoebe Lai.
- **Rossin Doctoral Fellowship**: five doctoral students selected in 2009-2015.
- **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”, Phoebe Lai, 2009, 2010 for her project: “Robust Resource Allocation and Capacity Expansion” and her honors thesis: “Robust Power Generation Planning under Demand Uncertainty”, Weisi Zhang, 2012, for her project: “Mitigating Margin Spirals in Portfolio Management”, Sean Byrne, 2014, for his project: “Healthcare Analytics in Medicare Drug Plans”, Jillian Sloand, 2014, for her project: “Assessing the Financial Viability of Stratified Medicine.”

## Publications

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

### Refereed book chapters

In print or to appear:

1. S. Sozuer\*, A. Thiele, “The state of robust optimization,” in M. Doumpos, C. Zopounidis, E. Grigoroudis, editors, *Robustness analysis in decision aiding, optimization and analytics*, International Series in Operations Research and Management Science, Springer, New York, to appear.
2. R. Duzgun\*, A. Thiele, “Dynamic models of robust optimization,” in J. Cochran, editors, *Encyclopedia of Operations Research and Management Science*, Wiley, New York, 2011. DOI: 10.1002/9780470400531.eorms0271
3. 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.
4. 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:

1. E. Cetinkaya\*, A. Thiele, “A moment-matching approach to log-normal portfolio optimization.” *Computational Management Science*, to appear. DOI: DOI 10.1007/s10287-016-0255-4.
2. G. Metan\*, A. Thiele, “Protecting the data-driven newsvendor against rare events: a correction-term approach,” *Computational Management Science*, 13(3): 459-482, 2016.
3. T. Xiao\*, A. Thiele, “Analysis of Medicare prescription drug coverage enrollment.” *Journal of*

- Health Care Finance*, 42(3): 40-48, 2016.
4. M. Dziecichowicz\*, D. Caro\*, A. Thiele, "Robust timing decisions of markdowns." *Annals of Operations Research*, 235(1): 203-231, 2015.
  5. R. Duzgun\*, A. Thiele, "Robust binary optimization using a safe tractable approximation." *Operations Research Letters*, 43(4):445-449, 2015.
  6. T. Xiao\*, A. Thiele, "Plan efficiency evaluation in health insurance exchanges." *Journal of Health Care Finance*, 42(1): 31-40, 2015.
  7. E. Cetinkaya\*, A. Thiele. "New Product Launch Decisions with Robust Optimization and Real Options." *Computational Management Science*, special issue, 10.1007/s10287-015-0237-y.
  8. Y. Dong\*, A. Thiele. "Robust investment management with uncertainty on fund managers' asset allocation." *RAIRO-Operations Research*, 49:821-844, 2015.
  9. E. Cetinkaya\*, A. Thiele. "Data-Driven Portfolio Management under Quantile Constraints." *OR Spectrum*, 37:761-786, 2015.
  10. V. Gabrel, C. Murat, A. Thiele, "Recent advances in robust optimization: an overview," *European Journal of Operational Research*, 235(3): 471-483, 2014.
  11. B. Kawas\*, A. Thiele, "Short sales in log-robust portfolio management," *European Journal of Operational Research*, 215(3): 651-661, 2011.
  12. B. Kawas\*, A. Thiele, "A log-robust optimization approach to portfolio management," *OR Spectrum*, 33(1): 207-233, 2011.
  13. A. Thiele, "A note on issues of over-conservatism in robust linear optimization with uncertain cost coefficients," *Optimization*, 59(7): 1033-1040, 2010.
  14. A. Thiele, "Multi-product pricing via robust optimization," *Journal of Revenue and Pricing Management*, 8(1): 67-80, 2009.
  15. M. Dziecichowicz\*, A. Thiele, "Robust selling times in adaptive portfolio management," *Algorithmic Operations Research*, 4(1): 58-69, 2009.
  16. A. Thiele, "Pricing with uncertain customer valuations," *Journal of Revenue and Pricing Management*, 7: 196-206, 2008.
  17. 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.)
  18. D. Bertsimas, A. Thiele, "A robust optimization approach to inventory theory", *Operations Research*, (54)1: 150-168, 2006.

#### Under review

1. M. Dziecichowicz\*, A. Thiele, "Robust stock and bond allocation with end-of-horizon effects." Submitted to *RAIRO-Operations Research*, February 2016.
2. S. Wang\*, A. Thiele, "Towards optimization co-insurance levels for statin treatment of heart disease." Submitted to *Operations Research for Health Care*, October 2015.

#### Under revision

1. V. Denoyel\*, A. Thiele, L. Alfandari, "Optimal facility in-network selection for healthcare payers under reference pricing." Submitted to *European Journal of Operational Research*, September 2015.
2. T. Xiao\*, A. Thiele, "Robust risk adjustment for healthcare payers."
3. G. Metan\*, A. Thiele, "Scenario design in robust inventory management."
4. A. Thiele, "Robust single-product pricing."

#### Permanent technical reports

1. R. Rappa\*, A. Thiele, "Analytics in the recovery of defaulted student loans."
2. J. Li\*, A. Thiele, "Basel-compliant Value-at-Risk estimation in financial risk management."
3. A. Thiele, T. Terry, M. Epelman, "Robust linear optimization with recourse."

3. R. Myall\*, A. Thiele, “Addressing exchange rate uncertainty in operational hedging: a comparison of three risk measures.”
4. D. Bertsimas, A. Thiele, “A data-driven approach to newsvendor problems,” May 2005. Available online at [http://www.optimization-online.org/DB\\_FILE/2006/11/1518.pdf](http://www.optimization-online.org/DB_FILE/2006/11/1518.pdf).

### Refereed conference proceedings

#### In print:

1. R. Duzgun\*, A. Thiele, “Evaluating two-range robust optimization for project selection.” Proceedings of the Winter Simulation Conference, Huntington Beach, CA, December 2015.
2. R. Duzgun\*, A. Thiele, “Robust optimization with multiple ranges: theory and application to R&D project selection.” Proceedings of the 14<sup>th</sup> INFORMS Computing Society conference, Richmond, VA, January 2015, pp.103-118, 2015.
3. G. Metan\*, A. Thiele, “Integrated forecasting and inventory control for seasonal demand,” Proceedings of the 11<sup>th</sup> INFORMS Computing Society conference, J. Chinneck, B. Kristjansson and M. Saltzman, editors, *Operations Research and Cyber-Infrastructure*, pp.427-441, Springer, New York, 2009.
4. G. Metan\*, A. Thiele, “An adaptive algorithm for the optimal sample size in the non-stationary data-driven newsvendor problem,” Proceedings of the 10<sup>th</sup> 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.
5. D. Bertsimas, A. Thiele, “A robust optimization approach to supply chain management,” Proceedings of the 10<sup>th</sup> 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:

1. 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.

### Funded Research

#### Past and current grants

- **“Robust Decision-Making Models for Nonprofit Healthcare Organizations,”** funded by a Lehigh University Faculty Innovation Grant (6/1/2013-5/31/2014). Single PI. Award amount: \$24,957.
- **“Robust Portfolio Management with Uncertain Compounded Rates of Return,”** funded by the National Science Foundation (7/1/2008-6/30/2012). Single PI. Award amount: \$205,964 including \$6,000 Research Experience for Undergraduate supplement.

- **“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 (1/1/2006-12/31/2010 including one-year no-cost extension). Single PI. Award amount: \$262,000 including \$12,000 Research Experience for Undergraduate supplement.

### Industry Research Projects without Funding

Students have been paid by an industry sponsor directly or received course credit for master’s level or PhD-level work done in partnership with industry, which I supervised.

- **Pennsylvania Shakespeare Festival:** “Analytics to identify potential season donors and high-value patrons and subscribers,” Lauren Haber, 2016.
- **Columbia Business School, Entrepreneurship and Competitiveness in Latin America:**
  - Primary advisor for Grupo Gastronomico, a Chile-based restaurant chain for cost reduction and Intelligenxia, a Chile-based company selling sensor-driven insights for retail analytics.
  - Ad-hoc advisor for Ilumexico, a Mexico-based renewable energy company for predictive analytics of loan repayment.
- **Sanofi-Pasteur:** “Identifying and quantifying the factors impacting Fluzone ® High-Dose sales,” Jillian Sloand, 2015.
- **Capital Blue Cross:**
  - “Analytics to detect coding errors in diagnosis,” Tengjiao Xiao, 2014.
  - “Disease management model improvement,” Shuyi Wang, 2014.
- **Air Products:** “Robust optimization in industrial process improvement,” Elcin Cetinkaya, 2013.
- **Boston Portfolio:** “Analytics in the recovery of defaulted student loans,” Robert Rappa, 2012.
- **Dresser-Rand:** “Risk management in R&D projects,” Scott Mastroianni, 2011.

### Presentations

*The presenting author is listed first.*

#### Invited talks at conferences

1. A. Thiele, “Robust optimization in R&D project selection,” Optimization Days, Montreal, Canada, May 2016.
2. V. Denoyel, L. Alfandari, A. Thiele, “Designing narrow network plans for healthcare: a bi-objective optimization approach.” INFORMS (Institute for Operations Research and Management Sciences) Annual Meeting, Philadelphia, PA, November 2015.
3. A. Thiele, M. Dziecichowicz, D. Caro, “Robust timing of markdowns.” International Symposium in Mathematical Programming (ISMP), Pittsburgh, PA, July 2015.
4. A. Thiele, Y. Dong, “Robust investment management with uncertainty in fund manager asset allocation.” ISMP, Pittsburgh, PA, July 2015.
5. A. Thiele, M. Dziecichowicz, D. Caro, “Robust timing of markdowns.” Canadian Operational Research Society (CORS) Annual Meeting, Montreal, Quebec, June 2015.



6. A. Thiele, V. Denoyel, L. Alfandari, "Optimal facility in-network selection for healthcare payers under reference pricing." Institute of Industrial Engineers (IIE) Annual Meeting, Nashville, TN, June 2015.
7. A. Thiele, V. Denoyel, L. Alfandari, "Optimal facility in-network selection for healthcare payers under reference pricing." INFORMS (Institute for Operations Research and Management Sciences) Annual Meeting, San Francisco, CA, November 2014.
8. T. Xiao, A. Thiele, "Robust hospital readmission payment adjustment", INFORMS Annual Meeting, San Francisco, CA, November 2014.
9. S. Wang, A. Thiele, "Robust optimization models in healthcare finance: The role of community benefit programs", INFORMS Annual Meeting, San Francisco, CA, November 2014.
10. V. Denoyel, A. Thiele, L. Alfandari, "Optimal facility in-network selection for healthcare payers under reference pricing." International Federation of Operational Research Societies (IFORS), Barcelona, Spain, July 2014.
11. Y. Dong, A. Thiele, "Robust manager allocation for investment management." INFORMS Annual Meeting, Minneapolis, MN, October 2013.
12. E. Cetinkaya, A. Thiele, "Portfolio risk management with moment-matching approach." INFORMS Annual Meeting, Minneapolis, MN, October 2013.
13. S. Wang, A. Thiele, "Robust capital investment decisions of nonprofit healthcare organizations." INFORMS Annual Meeting, Minneapolis, MN, October 2013.
14. T. Xiao, A. Thiele, "Risk adjustment in health insurance." INFORMS Annual Meeting, Minneapolis, MN, October 2013.
15. A. Thiele, T. Xiao, "Robust partial capitation in health insurance," INFORMS Healthcare Conference, Chicago IL, June 2013.
16. T. Xiao, A. Thiele, "Robust risk adjustment in health insurance," INFORMS Healthcare Conference, Chicago IL, June 2013.
17. S. Wang, A. Thiele, "Value-based insurance design," INFORMS Healthcare Conference, Chicago IL, June 2013.
18. A. Thiele, E. Cetinkaya, "Quantile optimization in linear programming," INFORMS Annual Meeting, Phoenix AZ, October 2012.
19. E. Cetinkaya, A. Thiele, "Robust customized pricing," INFORMS Annual Meeting, Phoenix AZ, October 2012.
20. E. Cetinkaya, A. Thiele, "Robust customized pricing," ISMP (International Symposium for Mathematical Programming), Berlin, Germany, August 2012.
21. E. Cetinkaya, A. Thiele, "Factor models in log-robust portfolio management," INFORMS Optimization Society conference, Coral Gables, FL, February 2012.
22. A. Thiele, R. Duzgun, "Robust optimization and project prioritization," INFORMS Annual Meeting, Charlotte, NC, November 2011.
23. R. Duzgun, A. Thiele, "Robust project selection with percentile optimization," INFORMS Annual Meeting, Charlotte, NC, November 2011.
24. E. Cetinkaya, A. Thiele, "Robust Optimization in Interest and Exchange Rate Management," INFORMS Annual Meeting, Charlotte, NC, November 2011.
25. A. Thiele, B. Kawas, "Log-robust portfolio management," IIE (Institute of Industrial Engineers) Annual Meeting, Reno, NV, May 2011.
26. R. Duzgun, A. Thiele, "Multi-range robust optimization with application to R&D project selection," INFORMS Annual Meeting, Austin, TX, November 2010.
27. M. Dziecichowicz, A. Thiele, Z. Zeng, "Robust stock and bond allocation with end-of-horizon effects," INFORMS Annual Meeting, Austin, TX, November 2010.
28. A. Thiele, B. Kawas, "Log-robust portfolio management with parameter ambiguity," INFORMS Annual Meeting, Austin, TX, November 2010.
29. A. Thiele, B. Kawas, "Log-robust portfolio management," EURO (European Society of Operational Research) Annual Meeting, Lisbon, Portugal, July 2010.

30. R. Duzgun, A. Thiele, “Robust R&D project management,” EURO Annual Meeting, Lisbon, Portugal, July 2010.
31. A. Thiele, “Robust optimization,” CORS/MITACS (Canadian Operational Research Society – Mathematics of Information Technology and Complex Systems) Joint Annual Conference, Edmonton, Alberta, Canada, May 2010. (**Invited tutorial speaker.**)
32. B. Kawas, A. Thiele, “Derivatives in log-robust portfolio management,” INFORMS Annual Meeting, San Diego, CA, October 2009.
33. A. Thiele, B. Kawas, “Log-robust portfolio management,” ISMP, Chicago, IL, August 2009.
34. 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.
35. A. Thiele, B. Kawas, “A log-robust approach to portfolio management,” INFORMS Annual Meeting, Washington, DC, October 2008.
36. A. Thiele, B. Kawas, “Short sales and derivatives in log-robust portfolio management,” INFORMS Annual Meeting, Washington, DC, October 2008.
37. A. Thiele, “Pricing via robust optimization,” INFORMS Annual Meeting, Washington, DC, October 2008.
38. A. Thiele, G. Metan, “Integrated scenario design and inventory control,” INFORMS Annual Meeting, Washington, DC, October 2008.
39. G. Metan, A. Thiele, “The value of information in inventory management,” INFORMS Annual Meeting, Seattle, Washington, November 2007.
40. R. Myall, A. Thiele, “Contracts in the risk-averse supply chain,” INFORMS Annual Meeting, Seattle, Washington, November 2007.
41. M. Dziecichowicz, A. Thiele, “Adaptive portfolio management,” ICCOPT-MOPTA (International Conference on Continuous Optimization – Modeling and Optimization: Theory and Applications), Hamilton, Ontario, August 2007.
42. D. Bertsimas, A. Thiele, “Modern decision-making under uncertainty: robust and data-driven optimization,” INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
43. A. Thiele, “Robust optimization in pricing,” INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
44. A. Thiele, “Robust revenue management with dynamic budgets of uncertainty,” INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
45. A. Thiele, “Dynamic and data-driven revenue management under uncertainty,” INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
46. A. Thiele, “Robust inventory management and piecewise linear optimization,” INFORMS Annual Meeting, Pittsburgh, Pennsylvania, November 2006.
47. A. Thiele, “The robust newsvendor with multiple products,” CORS (Canadian Operational Research Society) Annual Meeting, Montréal, Québec, Canada, May 2006.
48. A. Thiele, “Robust linear optimization with recourse,” INFORMS Annual Meeting, San Francisco, California, November 2005.
49. A. Thiele, “Robust dynamic pricing,” INFORMS Annual Meeting, San Francisco, California, November 2005.
50. A. Thiele, “Robust dynamic pricing,” IFORS Triennial Meeting, Hawaii, Honolulu, July 2005.
51. A. Thiele, “Robust dynamic pricing: a distribution-free approach,” CORS Annual Meeting, Halifax, Nova Scotia, Canada, May 2005.
52. A. Thiele, D. Bertsimas, “Data-driven revenue management,” INFORMS Annual Meeting, Denver, Colorado, October 2004.
53. A. Thiele, D. Bertsimas, “Data-driven inventory management,” INFORMS Annual Meeting, Denver, Colorado, October 2004.



54. 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).**
55. 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, T. Xiao. “Advanced Analytics in Healthcare,” Humana, Inc, October 2016.
2. A. Thiele, Talk TBD, HEC Montreal, GERAD (Group for Research in Decision Analysis), Montreal, Quebec, Canada.
3. A. Thiele, R. Duzgun, “Robust binary optimization: theory and applications in management science,” Pennsylvania State University, Department of Industrial Engineering and Operations Research, State College, PA, April 2016.
4. A. Thiele, V. Denoyel, L. Alfandari, “Optimal provider network design for healthcare payers under reference pricing,” SMU, February 2016.
5. A. Thiele, R. Duzgun. “Multi-range robust optimization with application to project selection,” U.S. Naval Academy, January 2016.
6. A. Thiele, “Design of health insurance policies”, ESSEC Business School, Paris, France, May 2015.
7. A. Thiele, V. Denoyel, L. Alfandari, “Optimal facility in-network selection for healthcare payers under reference pricing”, Department of Mechanical and Industrial Engineering, Northeastern University, Boston, MA, April 2015.
8. A. Thiele, V. Denoyel, L. Alfandari, “Optimal facility in-network selection for healthcare payers under reference pricing”, Department of Industrial and Systems Engineering, George Mason University, Fairfax, VA, March 2015.
9. A. Thiele, V. Denoyel, L. Alfandari, “Optimal facility in-network selection for healthcare payers under reference pricing”, R.H.Smith School of Business, University of Maryland, College Park, MD, December 2014.
10. A. Thiele, V. Denoyel, L. Alfandari, “Optimal facility in-network selection for healthcare payers under reference pricing”, MIT Operations Research Seminar series, Cambridge, MA, October 2014.
11. A. Thiele, “Data outliers and normalization”, HFMA Philadelphia Chapter, Data analytics seminar, July 2014.
12. A. Thiele, “Decision-making under high uncertainty”, Healthcare Financial Management Association (HFMA) Philadelphia Chapter, Data analytics seminar, November 2013.
13. A. Thiele. “Robust optimization in practice”, Amazon. (distance talk for Seattle group.) March 2013.
14. A. Thiele, V. Gabrel, C. Murat, E. Cetinkaya. “Approximate percentile approximation in linear programming,” IBM Research, Yorktown Heights, November 2012.
15. A. Thiele, V. Gabrel, C. Murat, E. Cetinkaya. “Approximate percentile approximation in linear programming,” Texas A&M University, November 2012.
16. A. Thiele, E. Cetinkaya, “Optimisation de quantile en programmation linéaire,” Université Paris-Dauphine, LAMSADE group, Paris, France, June 2012. (In French.)
17. A. Thiele, R. Duzgun, “Robust optimization with application to project selection,” New York University, Department of Information, Operations and Management Sciences, Leonard N. Stern School of Business, October 2011.
18. A. Thiele, R. Duzgun, “Robust binary optimization with percentile optimization,” Pennsylvania State University, Department of Industrial Engineering and Operations Research, September 2011.
19. B. Kawas, A. Thiele, “Log-robust portfolio management with parameter ambiguity,” Ninth Joint Operations Research Days, University of Bern, Bern, Switzerland, May 2011.

20. A. Thiele, R. Duzgun, "Optimisation robuste avec intervalles multiples: théorie et application à la sélection de projets," Université Paris-Dauphine, LAMSADE group, Paris, France, March 2011. (In French.)
21. A. Thiele, B. Kawas, "Log-robust portfolio management," Purdue University, School of Industrial Engineering, December 2010.
22. A. Thiele, B. Kawas, "Log-robust portfolio management," Robust Optimization workshop, Institute for Pure and Applied Mathematics (IPAM) at the University of California – Los Angeles, November 2010.
23. A. Thiele, R. Duzgun, "Robust optimization with multiple ranges," Penn State University, Department of Industrial Engineering and Operations Research, September 2010.
24. B. Kawas, A. Thiele, "Log-robust portfolio management," IBM Research Lab, Zurich, Switzerland.
25. A. Thiele, B. Kawas, "Log-robust portfolio management," Rutgers University, Department of Industrial and Systems Engineering, January 2010.
26. A. Thiele, B. Kawas, "Log-robust portfolio management," Penn State University, Department of Industrial Engineering and Operations Research, March 2009.
27. A. Thiele, B. Kawas, "Log-robust portfolio management," Lehigh University, Department of Industrial and Systems Engineering, March 2009.
28. A. Thiele, G. Metan, "Integrated scenario design and robust inventory control for new products," University of Michigan, Ross School of Business, June 2008.
29. 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.
30. A. Thiele, "Robust and data-driven inventory management," Rutgers University, Department of Industrial and Systems Engineering, December 2006.
31. A. Thiele, "The case for a robust optimization approach in revenue management," Air Products, Allentown, PA, August 2006.
32. A. Thiele, "Maximiser le revenu grâce à l'optimisation robuste" (in French) Air France, Paris, France, May 2006.
33. 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.
34. 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.
35. 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.
36. A. Thiele, "Tutorial on revenue management," Lehigh University, Department of Industrial and Systems Engineering, November 2004.
37. 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.
38. 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.
39. D. Bertsimas, A. Thiele, "Robust optimization: A tractable approach to optimization under uncertainty," Technische Universität Berlin, Institut für Mathematik, Berlin, Germany, October 2004.

40. 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.
41. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," Princeton University, Department of Operations Research and Financial Engineering, February 2004.
42. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," New York University, Stern School of Business, February 2004.
43. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Virginia, Department of Systems Engineering, February 2004.
44. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of British Columbia, Sauder School of Business, February 2004.
45. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," Lehigh University, Department of Industrial and Systems Engineering, February 2004.
46. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," Texas A&M, Department of Industrial Engineering, March 2004.
47. 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.
48. 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.
49. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Michigan, Ross School of Business, March 2004.
50. A. Thiele, D. Bertsimas, "A robust optimization approach to supply chain management," University of Minnesota, Department of Mechanical and Industrial Engineering, March 2004.
51. D. Bertsimas, M. Sim, A. Thiele, "Robust discrete and dynamic optimization," IMA Workshop on Semidefinite Programming and Robust Optimization, Minneapolis, Minnesota, March 2003.
52. 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.
53. 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.
54. D. Bertsimas, M. Sim, A. Thiele, "Robust optimization: A tractable theory of stochastic optimization", 4<sup>th</sup> Annual McMaster Optimization Conference: Theory and Applications (MOPTA 04), July 2004.
55. 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.
56. 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

- "Redesigning the U.S. healthcare system," INFORMS Annual Meeting 2015.
- "Undergraduate Operations Research Student Paper Competition I and II," INFORMS Annual Meeting 2015.
- "Highlights from the 2015 Early Career Connection Program," INFORMS Annual Meeting 2015.
- "Revenue Optimization under Uncertainty in Healthcare", INFORMS Annual Meeting 2014, Revenue Management and Pricing cluster. (Co-chaired with Tengjiao Xiao.)

- “Healthcare finance”, INFORMS Healthcare Conference 2013, Optimization cluster.
- “Applications of robust optimization”, ISMP Triennial Conference 2012, Robust Optimization cluster.
- “Risk management in financial systems”, IIE Annual Meeting 2011, Service Systems track.
- “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. V. Denoyel, A. Thiele, L. Alfandari, “Design of healthcare narrow networks with cost and utility considerations.” Manufacturing and Service Operations Management (MSOM) conference, Toronto, ON, June 2015.
2. A. Thiele, V. Denoyel, L. Alfandari, “Optimal facility in-network selection for healthcare payers under reference pricing.” Manufacturing and Service Operations Management (MSOM) conference, Seattle, WA, June 2014.
3. E. Cetinkaya, A. Thiele, “New Product Launch Decisions with Robust Optimization and Real Options,” MSOM conference, Seattle, WA, June 2014.
4. R. Swaszek, A. Thiele, “Quantitative Models for Medication Management.” INFORMS annual meeting, Minneapolis, MN, October 2013. (*Presented in the undergraduate research session. Undergraduate O.R. Paper Competition finalist.*)
5. E. Cetinkaya, A. Thiele, “Robust customized pricing,” MOPTA (Modeling and Optimization: Theory and Applications) conference, Bethlehem, Pennsylvania, August 2012. (\*)
6. K. Glass-Hardenbergh, A. Thiele, “Municipal Bond Management Under Uncertainty,” INFORMS annual meeting, Charlotte, NC, November 2011. (*Presented in the undergraduate research session.*)
7. A. Thiele, R. Duzgun, “Robust project selection with percentile optimization”, MOPTA conference, Bethlehem, Pennsylvania, August 2011. (\*)
8. P. Lai, A. Thiele, “Robust Power Generation Planning under Demand Uncertainty,” INFORMS annual meeting, Austin, TX, November 2010. (*Presented in the undergraduate research session.*)
9. A. Thiele, B. Kawas, “Log-robust portfolio management with parameter ambiguity,” MOPTA conference, Bethlehem, Pennsylvania, August 2010. (\*)
10. R. Duzgun, A. Thiele, “Robust R&D project selection,” MOPTA (Modeling and Optimization: Theory and Applications) conference, Bethlehem, Pennsylvania, August 2010. (\*)
11. B. Kawas, A. Thiele, “Log-robust portfolio management,” MOPTA (Modeling and Optimization: Theory and Applications) conference, Bethlehem, Pennsylvania, August 2009. (\*)

12. A. Thiele, B. Kawas, "Short sales in log-robust portfolio management," INFORMS Computing Society conference, Charleston, South Carolina, January 2009. (\*)
13. A. Thiele, G. Metan, "Integrated forecasting and inventory control for seasonal demand," INFORMS Computing Society conference, Charleston, South Carolina, January 2009. (\*)
14. Y.-J. Tsai, A. Thiele, "Robust dynamic pricing of perishable products using RiskOptimizer," Palisade Live Webcast, March 2008. (\*)
15. Y.-J. Tsai, A. Thiele, "Robust Dynamic Pricing of Perishable Products using RiskOptimizer," 2007 Palisade User Conference (North America), Miami Beach, October 2007. (\*)
16. R. Myall, A. Thiele, "Addressing exchange rate risk in operational hedging," Production and Operations Management Society (POMS) annual meeting, Dallas, Texas, May 2007.
17. 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.
18. R. Myall, A. Thiele, "Measuring risk in operational hedging," INFORMS annual meeting, Pittsburgh, Pennsylvania, November 2006.
19. G. Metan, A. Thiele, "The non-stationary data-driven newsvendor problem," INFORMS annual meeting, Pittsburgh, Pennsylvania, November 2006.
20. A. Thiele, "Robust revenue management with dynamic budgets of uncertainty," INFORMS conference on Manufacturing and Service Operations Management (MSOM), Atlanta, Georgia, June 2006. (refereed) (\*)
21. A. Thiele, "Robust revenue management with dynamic budgets of uncertainty," INFORMS 6<sup>th</sup> annual revenue management and pricing subdivision conference, New York City, New York, June 2006. (\*)
22. A. Thiele, "Robust multiperiod pricing," INFORMS 5<sup>th</sup> annual revenue management and pricing subdivision conference, Cambridge, Massachusetts, June 2005. (\*)
23. A. Thiele, D. Bertsimas, "A data-driven approach to newsvendor problems," POMS (Production and Operations Management Society) 1<sup>st</sup> annual conference on operations management in service, New York, New York, December 2004. (\*)
24. A. Thiele, D. Bertsimas, "Data-driven revenue management," INFORMS 4<sup>th</sup> annual revenue management and pricing subdivision conference, Cambridge, Massachusetts, June 2004. (\*)
25. A. Thiele, D. Bertsimas, "Robust revenue management," INFORMS 3<sup>rd</sup> annual revenue management and pricing subdivision conference, New York, New York, June 2003. (\*)
26. 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

### *Presented by students*

- "Optimal facility in-network selection for healthcare payers under reference pricing", Healthcare Systems Optimization workshop, Northwestern University, Chicago, IL, September 2014. *Presented by Victoire Denoyel. Student was awarded a Travel Grant to go to the workshop.*
- "Robust Healthcare Financing Systems." University-Wide Graduate Research Symposium, Lehigh University, April 2013. *Presented by Tengjiao Xiao, Shuyi Wang, Brittany Rasmussen, Rebecca Swaszek.*
- "Mitigating Margin Calls in Portfolio Management." Undergraduate Research Symposium, P.C. Rossin College of Engineering and Applied Sciences, Lehigh University, March 2012. *Presented by Weisi Zhang.*
- "Bond Management under Uncertainty." *Presented by Katherine Glass-Hardenbergh and Sushan Zheng.*
  - Undergraduate Research Symposium, P.C. Rossin College of Engineering and Applied Sciences, Lehigh University, March 2011. **Honorable mention in student poster competition.** (Selected to participate in university-wide undergraduate research symposium.)

- Undergraduate Research Symposium, University-Wide, Lehigh University, Lehigh University, March 2011.
- “Robust Optimization with Multiple Ranges.” University-Wide Graduate Research Symposium, Lehigh University, March 2011. *Presented by Ruken Duzgun.*
- “Robust Power Generation Planning under Demand Uncertainty.” *Presented by Phoebe Lai.*
  - Undergraduate Research Symposium, P.C. Rossin College of Engineering and Applied Sciences, Lehigh University, April 2010.
  - Center for Value Chain Research (CVCR) Spring conference, Lehigh University, Bethlehem, PA, May 2010. **Honorable mention in student poster competition.**
- “Risk-Return Tradeoffs in Log-Robust Portfolio Management,” CVCR Spring conference, Lehigh University, May 2010. *Presented by Ban Kawas.*
- “Log-Robust Portfolio Management,” *Presented by Ban Kawas.*
  - Symposium for the 60<sup>th</sup> anniversary of the Industrial and Systems Engineering Department, Lehigh University, April 2009.
  - CVCR Spring conference, Lehigh University, Bethlehem, PA, May 2009.

*Presented by me.*

- “A case study in project selection under parameter uncertainty using two-range robust optimization,” INFORMS Conference on Business Analytics and Operations Research, Orlando, FL, April 2016.
- Plan efficiency evaluation in health insurance exchanges”, INFORMS Conference on Business Analytics and Operations Research, Huntington Beach, CA, April 2015.
- “Healthcare Analytics for Medicare Advantage and Part D Prescription Drug Plans”, INFORMS Conference on Business Analytics and Operations Research, Boston, MA, March 2014.
- “Robust Portfolio Management with Uncertain Compounded Rates of Return”:
  - National Science Foundation (NSF) CMMI (Division of Civil, Mechanical and Manufacturing Innovation) grantees conference, Atlanta, GA, January 2011.
  - NSF CMMI grantees conference, Honolulu, HI, June 2009.
- “Robustness and Performance in Data-driven Revenue Management”:
  - NSF CMMI grantees conference, Atlanta, GA, January 2011.
  - NSF CMMI grantees conference, Honolulu, HI, June 2009.
  - NSF CMMI grantees conference, Knoxville, TN, January 2008.
  - NSF 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) Fall conference, Chicago, IL, November 2009.
  - CELDi, Spring conference, Charlotte, NC, April 2009.
  - CELDi, 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

### At Southern Methodist University

#### Graduate:

**Nonlinear Programming.** Fall 2016

### At Lehigh University

#### Undergraduate:

**Operations Research Models and Applications.** Fall 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2015

**Financial Optimization,** Lehigh University. Spring 2013, Spring 2014, Spring 2016

#### Graduate:

**Introduction to Mathematical Programming,** Fall 2008

**Nonlinear Programming,** Fall 2007

**Optimization Models and Applications,** Fall 2004

**Financial Engineering Project,** Fall 2007, Spring 2008, Fall 2008, Fall 2010, Fall 2011, Fall 2012, Fall 2013, Fall 2015

**Financial Optimization,** Spring 2006, Spring 2007, Spring 2009, Spring 2010, Spring 2011, Spring 2012, Spring 2013, Spring 2014, Spring 2016

**Stochastic Programming with Management Applications,** Spring 2005

## Student Advising

*Placement information refers to employment immediately following graduation and may have changed.*

#### Undergraduate:

Honors thesis.

1. Phoebe Lai (Class of 2010). “Robust Power Generation under Demand Uncertainty.” *Graduate student at UC Berkeley.*

Other research advising.

*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) *Student received Third Prize at Lehigh’s Undergraduate Research Symposium based on this work. Shared with V. Berenholz.*
7. Victoria Berenholz (Class of 2008, Fall 2007) *Student received Third Prize at Lehigh’s Undergraduate Research Symposium based on this work. Shared with C. Barrett.*
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. Derek Lutchko (Class of 2010, Spring 2010)
16. Phoebe Lai (Class of 2010, Spring 2009-Fall 2011)
17. Ana Alexandrescu (Class of 2010, Summer 2009-Spring 2010)
18. Anthony Solesi (Class of 2012, Fall 2011)
19. Sushan Zheng (Class of 2012, Fall 2011)
20. Weisi Zhang (Class of 2013, Spring 2012)
21. Franklin Aribéana (Class of 2013, Spring 2013)
22. Brittany Rasmussen (Class of 2014, Spring 2013)
23. Rebecca Swaszek (Class of 2014, Spring 2013) *Student was a finalist at the INFORMS Undergraduate Operations Research Competition in 2013 based on this work and is now a doctoral student in the Division of Systems Engineering at Boston University.*
24. Lauren Haber (Class of 2016, Spring 2016).

#### Master's:

1. Kursad Derinkuyu (M.S., May 2006) Non-thesis program. *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." *Employee at Bank of Thailand.*
3. Muhannad al Najjab (M.S., May 2007) Thesis title: "The robustness of pricing models for European call options." *Employee at Ernst & Young, New York, NY.*
4. Yu-Jiun Tsai (M.S., September 2007) Thesis title: "Robust dynamic pricing for perishable items." *PhD student at Pennsylvania State University.*
5. Zhongzhong Zeng (M.S., September 2007) Non-thesis program. *Employment situation unknown.*
6. Rockey Myall (M.S., January 2008) Non-thesis program. *PhD student at Lehigh University.*
7. Joseph Curatolo (M.S., May 2008) Thesis title: "Mortgage refinancing under uncertainty: switching from adjustable-rate to fixed-rate." *Analyst at Goldman Sachs, New York, NY.*
8. Kuo-Wei Chen (M.S., May 2008) Thesis title: "Joint plant capacity expansion and financing under demand uncertainty." *PhD student at the University of Washington at Seattle.*
9. Daniela Caro (M.S., May 2009) Project title: "Robust decision times for markups and markdowns." *Pricing analyst at MillerCoors, Chicago, IL.*
10. Christopher Martine (M.S., May 2011) Project title: "Revenue generation in social networking." *Consultant for IBM Global Business Services, New York, NY.*
11. Scott Mastroianni (M.S., May 2011) Thesis title: "Risk management in R&D projects." *Employee at Ingersoll-Rand. (Co-advised with Prof. Keith Gardiner.)*
12. Todd Simkins (M.S., August 2011). Thesis title: "On the application of mixed integer programming to the facility layout problem: a case study." *Employee at the US Army. (Advised after Prof. Mikell Groover retired.)*
13. Jingbo Li (M.S., May 2012). Thesis title: "A Cauchy-Gaussian mixture model for Basel-compliant Value-at-Risk estimation in financial risk management." *Employment unknown.*
14. Robert Rappa (M.S., May 2012). Thesis title: "Analytics in the recovery of defaulted student loans." *Employee at IBM Global Services.*

#### Doctoral:

1. Gokhan Metan (entered program August 2004, graduated May 2008) Dissertation title: "Robust and data-driven inventory management: Theory and algorithms." Position immediately after graduation: *Operations Research Senior Analyst at American Airlines, Dallas, TX.*
2. Ban Kawas (entered program Fall 2006, graduated May 2010) Dissertation title: "Log-robust portfolio management." Position immediately after graduation: *Post-doctoral researcher at the IBM Research Laboratory in Zurich, Switzerland.*

3. Michael Dziecichowicz (entered program Fall 2004, graduated January 2011) Dissertation title: “Robust decision times with applications to finance and revenue management.” Position immediately after graduation: *Senior adviser in the Advisory Services Practice – Financial Services Office of Ernst & Young, New York, NY.*
4. Ruken Duzgun (entered program Fall 2007, graduated May 2012) Dissertation title: “Robust optimization with multiple ranges and chance constraints.” Position immediately after graduation: *Senior programmer analyst at Marriott International, Bethesda, MD.*
5. Elcin Cetinkaya (entered program Fall 2009, graduated May 2014). Dissertation title: “Essays in robust and data-driven management.” Position immediately after graduation: *Research scientist at Amazon.com, Seattle, WA.*
6. Yang Dong (entered program Fall 2010, graduated August 2014). Robust performance attribution analysis in financial management. Position immediately after graduation: *Senior quantitative analyst at JP Morgan, New York, NY.*
7. Tengjiao Xiao (entered program Fall 2011, graduated May 2015). Dissertation title: “Robust healthcare financing systems.” Position immediately after graduation: *Senior Consultant, Ernst & Young, New York, NY.*
8. Shuyi Wang (entered program Fall 2012, graduated August 2016). Dissertation title: “Innovation applications of robust optimization for long-term decision making.” Position immediately after graduation: *Statistical Consultant II, Alliance Data, Columbus, OH.*

### Current students

#### Doctoral:

1. Victoire Denoyel (visiting doctoral student from ESSEC Business School, co-advised with Laurent Alfandari). Robust healthcare networks: in-network provider selection, choice models.

### 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. Zhenlei Shen (Lehigh University, ECE department). Graduated January 2009.
6. Jason Derenick (Lehigh University, CSE department). Graduated May 2009.
7. Banu Gemici (Lehigh University, ISE department). Graduated May 2009.
8. Tara Terry (U.Michigan, IEOR department). Graduated September 2009.
9. Yang Yang (Lehigh University, ECE department). Graduated September 2009.
10. Zumbul Bulut (Lehigh University, ISE department). Graduated May 2010.
11. Nabila Remli (Université Paris-Dauphine, LAMSADE). Graduated March 2011.
12. Scott deNegre (Lehigh University, ISE department). Graduated May 2011.
13. Camilo Mancilla (Lehigh University, ISE department). Graduated September 2011.
14. Stephen Mansour (Lehigh University, ISE department). Graduated January 2012.
15. Tolga Seyhan (Lehigh University, ISE department). Graduated May 2012.
16. Anahita Hassanzadeh (Lehigh University, ISE department). Graduated August 2014.
17. Onur Babat (Lehigh University, ISE department).

### Service and Professional Memberships

#### National service

- INFORMS (Institute for Operations Research and Management Sciences) Annual Meeting:
  - 2016, 2017 New Faculty Colloquium co-chairperson.

- 2015 Organizing Committee member, TutORials co-chair.
- INFORMS Analytics conference:
  - 2016 Organizing Committee member, Managing Risk track (renamed Decision and Risk Analysis track) co-chairperson and Early Career Connection co-chairperson.
  - 2015 INFORMS Analytics conference, Organizing Committee member, Managing Risk track sub-committee member and Early Career Connection co-chairperson.
- INFORMS Undergraduate Operations Research student paper competition:
  - Chairwoman, 2015.
  - Committee member, 2014.
- INFORMS George E. Nicholson Student Paper Competition: member (2016-present).
- INFORMS O.R. and Analytics Student Competition: member (2016-present).
- INFORMS Professional Recognition committee member (2016-present).
- Judge of the MIT AMITA Undergraduate Student Award competition (2014, 2015).
- Judge of the George E. Nicholson student paper competition, Institute for Operations Research and Management Sciences (INFORMS) (2011).
- Chairwoman (2011-present) and member (2008-2010) of the *Public Information Committee* (committee dedicated to raising the general public's understanding of operations research) of INFORMS.
- Vice President of Communications of *Forum for Women in Operations Research and Management Sciences* (WORMS) at INFORMS (Junior VP, 2011 and Senior VP, 2012).

#### Local service

Judge for the Lehigh Valley Science and Engineering Research Fair (2008-2013).

#### University service

##### Departmental service:

- Lead author of department application to INFORMS George D. Smith Prize, for which we were named finalists: 2011.
- Member of curriculum improvement committees (Master's and PhD committees: 2009 – 2010 academic year, undergraduate committee: 2010 – 2012 academic years)
- Member of organization committee of MOPTA (Modeling and Optimization: Theory and Applications) conference (2009-2014)
- Member of faculty search committees (junior faculty search: 2008 –2009 and 2010 – 2011 searches, senior faculty search: 2009 – 2010 search)
- Member of chair search committee (2007 – 2008)
- Coordinator of ISE seminar series (2007 – 2010)
- Faculty representative on the ISE Council (2007-2014)
- Affiliated faculty member of COR@L (Computational Optimization Research at Lehigh) group (2009-present)

##### University-wide service:

- Member of 2013 Lehigh Academic Symposium planning committee (2012-2013).
- Member of Graduate Research Committee (2012-2014), including Courses & Curriculum subcommittee.
- Member of Lehigh evoLUtion seminar redesign group (2012).
- Member of 2012 Lehigh Resources to Engage, Accomplish, Connect and Help (REACH) cohort (2011-2012).
- Panelist for “Dialog Lehigh” event for the Office of Advancement (November 2011)
- Panelist for First-Year Experience symposium at Lehigh University (October 2011)

- Speaker during International Student Week at Lehigh University about ethics in research, for international graduate students (Fall 2009)
- Panelist for CHOICES (Charting Horizons and Opportunities in Careers in Engineering and Science) event on women engineers (Summer 2009, 2011, 2014)
- Affiliated faculty member of the Center of Value Chain Research at Lehigh (2004-present)
- Faculty coordinator for Lehigh University student team, Case Study Competition at Rutgers University (2007-2014)
- Panelist for SWE (Society of Women Engineers) event on women engineers (Fall 2007)
- Mentor for Lehigh minority students (2007-2011)
- Faculty facilitator for Lehigh's First-Year Experience program (2007-2012)
- Academic advisor for first-year engineering students (2006-present)
- Member of faculty search committee, Department of Mathematics, (2006 – 2007 and 2010 – 2011 academic years.)
- Pro bono study of sales and pricing at Zoellner Arts Center to identify revenue management opportunities (Fall 2005 – Spring 2007)

### Media

- Interviewee for *Professional Engineer* magazine article on the engineering blog (May 2014).
- Panelist for panel on role of social media in promoting operations research and management science, INFORMS annual meeting (Fall 2010).
- 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.

### Reviewer

#### Journals:

*Operations Research. M&SOM. Naval Research Logistics European Journal of Operational Research. INFORMS Journal on Computing. Management Science. International Journal of Control. Transportation Research E. Annals of Operations. SIAM Journal on Optimization. Computational Optimization and Applications. Computational Management Science. IEEE Transactions on Automatic Control. Optimization Methods and Software. IBM Systems Journal. Networks.*

#### Conferences:

INFORMS ICS Conference. IEEE Control Systems Society Conference. International Symposium on Theoretical Aspects of Computer Science.

#### Grant proposals:

Panelist for grant proposal reviews, National Science Foundation, 2006 and 2009.  
Panelist for Graduate Research Fellowships, National Science Foundation, 2014.

### Miscellaneous

- Completed all 44 modules of **Harvard ManageMentor** (November 2013-November 2014) including strategic thinking, strategy implementation, innovation and creativity, innovation implementation, crisis management, business case development, budgeting, career management, change management, team management, performance measurement, performance appraisal,

feedback, delegating, developing employees, motivating employees, coaching, dismissing employees, diversity, global collaboration, virtual teams, and more.

- **MOOC certificates** in:
  - The Impact of Drug Development (UTAustinX),
  - United States Health Policy (HarvardX),
  - Understanding and Improving the US Healthcare System (Coursera/University of Michigan).

### **Professional memberships**

#### **Member of:**

- The Institute for Operations Research and the Management Sciences (INFORMS)
- The Society for Medical Decision-Making (SMDM)
- The Healthcare Financial Management Association (HFMA)
- AcademyHealth (AH)

This version: September 2016.