Özlem Ergun

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Mechanical & Industrial Engineering
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I. EARNED DEGREES

- Ph. D., Operations Research, *Massachusetts Institute of Technology*, Boston, MA, June 2001
- B. S., Operations Research and Industrial Engineering, *Cornell University*, Ithaca, NY, January 1996

II. EMPLOYMENT

- College of Engineering Distinguished Professor, Mechanical & Industrial Engineering and Affiliated Faculty, Electrical & Computer Engineering and Civil & Environmental Engineering *Northeastern University*, Boston, MA, November 2021 - present
- Associate Chair for Graduate Affairs, Mechanical & Industrial Engineering, *Northeastern University*, Boston, MA, July 2020 - present
- Graduate Program Co-ordinator for Industrial Engineering and Operations Research, Mechanical & Industrial Engineering, *Northeastern University*, Boston, MA, January 2017 - July 2020
- Professor, Mechanical & Industrial Engineering and Affiliated Faculty, Electrical & Computer Engineering and Civil & Environmental Engineering *Northeastern University*, Boston, MA, August 2016 - present
- Associate Professor and Faculty Development Fellow, Mechanical & Industrial Engineering and Affiliated Faculty, Electrical & Computer Engineering, *Northeastern University*, Boston, MA, August 2014 - August 2016
- Adjunct Associate Professor, School of Industrial & Systems Engineering, *Georgia Institute of Technology*, Atlanta, GA, October 2014 - August 2017
- Coca Cola Associate Professor, School of Industrial & Systems Engineering, *Georgia Institute of Technology*, Atlanta, GA, August 2013 - August 2014
- Associate Professor, School of Industrial & Systems Engineering, *Georgia Institute of Technology*, Atlanta, GA, February 2008 - August 2013
- Co-Director, Center for Health and Humanitarian Logistics, School of Industrial & Systems Engineering, *Georgia Institute of Technology*, Atlanta, GA, March 2007 - present
- Visiting Associate Professor, Applied Mathematics, School of Engineering and Applied Sciences, Harvard University, Cambridge, MA, August 2011 - June 2013
- Assistant Professor, School of Industrial & Systems Engineering, *Georgia Institute of Technology*, Atlanta, GA, September 2001 - February 2008

- Visiting fellow, *The Logistics Institute - Asia Pacific, National University of Singapore*, Singapore, November 2003 and November 2004

III. **SCHOLARLY ACCOMPLISHMENTS** (* indicates a student co-author)

(A) **Published papers in refereed journals**

1. K. Peters, S. Silva, T. S. Wolter, L. Anjos, N. van Ettekoven, É. Combette, A. Melchiori, H. Fleuren, D. den Hertog, O. Ergun, UN World Food Programme: Towards Zero Hunger with Analytics. *INFORMS Journal on Applied Analytics*, 52(1):8-26, 2022.

2. A. Ulusan* and Ö. Ergun, Approximate dynamic programming for network recovery problems with stochastic demand. *Transportation Research Part E: Logistics and Transportation Review* volume 151, 2021.

3. K. Peters, S. Silva, R. Gonçalves, M. Kavelj, H. Fleuren, D. den Hertog, Ö. Ergun, M. Freeman, The Nutritious Supply Chain: Optimizing Humanitarian Food Assistance. *Informs Journal on Optimization,* 3 (2), 200-226, 2021.

4. R. Doroudi*, P. Sequeira, S. Marsella, Ö. Ergun, R. Azghandi*, D. Kaeli, Y. Sun*, J. Griffin. Effects of trust-based decision making in disrupted supply chains. *PLOS ONE* , 2020. https://doi.org/10.1371/journal.pone.0224761

5. A. Ulusan* and Ö. Ergun, Restoration of Services in Disrupted Infrastructure Systems: A Network Science Approach. *PLOS ONE*
13(2): e0192272. 2018. https://doi.org/10.1371/journal.pone.0192272, 2018.

6. L. Gui*, A. Atasu, Ö. Ergun and B. Toktay. Design Incentives under Collective Extended Producer Responsibility: A Network Perspective. *Management Science*, 64 (11), 4967-5460, 2018.

7. M. Celik*, A. Lorca*, Ö. Ergun, P. Keskinocak. A decision-support tool for post-disaster debris operations. *Production and Operations Management* special issue on Not for Profit Operations Management, 26 (6), 1076-1091, 2017.

8. J. Kembro*, T. Rezvanian*, Ö. Ergun, and M. Jahre. Integrating supply chains for emergencies and ongoing operations in UNHCR: an evidence-based approach to humanitarian network design. *Journal of Operations Management* special issue on Empirically Grounded Research in Humanitarian Operations Management, 45, 57-72, 2016.

9. L. Gui*, A. Atasu, Ö. Ergun, and B. Toktay. Fair and Efficient Implementation of Collective Extended Producer Responsibility Legislation. *Management Science*, 62(4), 1098-1123, 2016.
   - Honorable mention, INFORMS Section on Public Programs, Service and Needs best paper award, 2012.

10. M. Celik*, W. Cao*, N.M. Viljoen*, Ö. Ergun, J. Swann. Challenges in service network expansion: An application in donated breastmilk banking in South Africa. Forthcoming in *Socio-Economic Planning Sciences* special issue on Location Analysis for Public Sector Decision-Making in Uncertain Times, 2015.
    Available online at http://dx.doi.org/10.1016/j.seps.2015.10.006

11. Y. Li*, Ö. Ergun, G. Nemhauser. A Dual Heuristic for Mixed Integer Programming. *Operations Research Letters*, 43, 411-417, 2015.

12. Ö. Ergun, G. Kuyzu*, and M. Savelsbergh. Bid price optimization for simultaneous truckload transportation auctions. *Transportation Research Part B*, 73, 34-58, 2015.

13. M. Celik*, Ö. Ergun, P. Keskinocak. The Post-Disaster Debris Clearance Problem with Incomplete Information. *Operations Research*, 63(1), 65-85, 2015.
    - Runner-up, The Production and Operations Management Society (POMS) College of Humanitarian Operations & Crisis Management best paper award, 2013.

14. Ö.Ergun, L. Gui*, J. L. Heier Stamm*, P. Keskinocak and J. L. Swann. Improving Humanitarian Operations through Collaboration. *Production and Operations Management* special issue on Humanitarian Operations and Crisis Management, 23(6) 1002-1014, 2014.

15. Ö. Özener*, Ö. Ergun, and M. Savelsbergh. Allocating Cost of Service to Customers in Inventory Routing. *Operations Research.* 61 (1), 112-125, 2013.

16. L. Gui*, A. Atasu, Ö. Ergun and B. Toktay. Implementing Extended Producer Responsibility Legislation: A Multi-Stakeholder Case Analysis. *Journal of Industrial Ecology*, 17(2), 262-276, 2013.

17. L. Houghtalen*, Ö. Ergun, and J. Sokol. Designing Mechanisms for the Management of Carrier Alliances. *Transportation Science*, 45(4), 465-482, 2011.
    - Winner, EURO/INFORMS 2007 Management Science Strategic Innovation Prize given on the subject of *Logistics* in 2007

18. D. Altner* and Ö. Ergun. Rapidly Computing a Robust Minimum Capacity s-t Cut: A Case Study in Solving a Sequence of Maximum Flow Problems. *Annals of Operations Research*, 184(1) 2011.

19. Ö. Özener*, Ö. Ergun, and M. Savelsbergh. Collaboration for Truckload Carriers. *Transportation Science*, 45(1) 2011.

20. A. Ekici*, Ö. Ergun, P. Keskinocak and M. G. Lagoudakis. Optimal job splitting on a multi-slot machine with applications in the printing industry. *Naval Research Logistics*, 57(3) 2010.

21. R. Agarwal* and Ö. Ergun. Network design and allocation mechanisms for carrier alliances in liner shipping. *Operations Research*, 58(6) 2010.
    - Finalist, INFORMS 2007 Junior Faculty Interest Group Paper Competition

22. D. Altner*, Ö. Ergun and N. A. Uhan*. On the Maximum Flow Network Interdiction Problem. *Operations Research Letters*, 38, 33-38, 2010.

23. Ö.Ergun, J. L. Heier*, P. Keskinocak, and J. Swann. Waffle House Restaurants Hurricane Response: A Case Study. *International Journal of Production Economics* special issue on Improving Disaster Supply Chain Management, 126, 111-120, 2010.

24. N. Maciek*, Ö. Ergun and C.C. White. An Empirical Study on the Benefit of Split Loads with the Pickup and Delivery Problem. *European Journal of Operational Research*, 198(3) 734-740, 2009.

25. Ö. Özener* and Ö Ergun. Allocating Costs in a Collaborative Transportation Procurement Network. *Transportation Science* 42(2) 146-165, 2008.

26. R. Agarwal* and Ö. Ergun. Mechanism design for a multicommodity flow game in service network alliances. *Operations Research Letters* 36(5) 520-524, 2008.

27. R. Agarwal* and Ö. Ergun. Ship scheduling and network design for cargo routing in liner shipping. *Transportation Science* 42(2) 175-196, 2008.

28. M. Novak*, Ö Ergun, and C.C. White. Pick-up and delivery with split loads. *Transportation Science* 42, 32-43, 2007.

29. Y. Yao*, Ö. Ergun, E. Johnson, W. Schultz, and J.M. Singleton. Strategic planning problems in fractional aircraft ownership programs. *European Journal of Operational Research* 189, 526-539, 2007.

30. R. Agarwal*, Ö. Ergun, J.B. Orlin, and C.N. Potts. Solving parallel machine scheduling problems with very-large scale neighborhood search. To appear in *Journal of Scheduling*, 2007.

31. Ö. Ergun, G. Kuyzu*, and M. Savelsbergh. Reducing truckload transportation costs through collaboration. *Transportation Science.* 41, 206-221, 2007.

32. Ö. Ergun, G. Kuyzu*, and M. Savelsbergh. The shipper collaboration problem. *Computers and Operations Research, Odysseus 2003 Special Issue.* 34 (6), 1551-1560, 2007.

33. Ö. Ergun and J.B. Orlin. A dynamic programming methodology in very large scale neighborhood search applied to the traveling salesman problem. *Discrete Optimization.* 3 (1), 78-85, 2006.

34. Ö. Ergun, J.B. Orlin, and A. Steele-Feldman*. Creating very large-scale neighborhoods out of smaller ones by compounding moves. *Journal of Heuristics.* 12 (1-2), 115-140, 2006.

35. Ö. Ergun and J.B. Orlin. Fast neighborhood search for the single machine total weighted tardiness problem. *Operations Research Letters.* 34 (1), 41-45, 2006.

36. A.C. Begen*, Y. Altunbasak, Ö Ergun, and M.H. Ammar. A multi-path selection for multiple description video streaming over overlay networks. *EURASIP Signal Processing : Image Communication.* 20(1), 39-60, 2005.

    - Most Cited Paper Award, Signal Processing: Image Communication given to the most cited paper published between the years 2005-2007.

37. R.K. Ahuja, Ö. Ergun, J.B. Orlin, and A.B. Punnen. A survey of very large-scale neighborhood search techniques, *Discrete Applied Mathematics* 123, 75-102, 2002.

(B) **Books and parts of books**

1. B. Heydari, Ö. Ergun, R. Dyal-Chand, and Y. Bart. (eds.) *Reengineering Sharing.* Book under contract and submitted for review. Cambridge University Press. February 2022.

2. N. O. Duman, O. Ergun, and M. Behroozi. (2022) Shared Last Mile Delivery: Current Trends and Future Opportunities. To appear in B. Heydari, Ö. Ergun,

R. Dyal-Chand, and Y. Bart (eds.) *Reengineering Sharing.* Cambridge University Press.

3. M. Celik*, Ö. Ergun, B. Johnson*, P. Keskinocak, A. Lorca*, P. Pekgun and J. Swann. (2012) Humanitarian Logistics. In P.B. Mirchandani (ed.) *New Directions in Informatics, Optimization, Logistics, and Production.* Tutorials in Operations Research INFORMS, Hanover, 18-49.

4. Ö. Ergun, G. Karakus*, P. Kerl*, P. Keskinocak, J. Swann, M. Villarreal* and M. Drake*. (2012) Disaster Response Planning in the Private Sector and the Role of Operations Research. In J. W. Herrmann (ed.) *Handbook of Operations Research for Homeland Security.* (International Series in Operations Research and Management Science) Springer, New York, 183: 197-217.

5. S. Duran*, Ö. Ergun, P. Keskinocak, J. Swann. (2012) Humanitarian Logistics: Advanced Purchasing and Pre-positioning of Relief Items. In J. H. Bookbinder (ed.) *Handbook of Global Logistics: Transportation in International Supply Chains.* (International Series in Operations Research and Management Science) Springer, New York, 181: 447-462.

6. A. Ak*, J.L. Heier*, C.L. Wardell III*, Ö. Ergun, P. Keskinocak, and J. Fitzimmons. (2010) Quantitative Models for Vaccine Procurement. To appear in D. Goldsman, P. Goldsman, and S. Kumar (eds.), *Humanitarian Logistics and Supply Chains: Case Studies and Research Issues.*

7. Ö. Ergun, L. Gui*, L. Houghtalen*, and O. O. Ozener*. (2010) Shipper and carrier collaboration. In J.J. Cochran (ed.) *Wiley Encyclopedia of Operations Research and Management Science.* John Wiley & Sons.

8. Ö. Ergun, G. Karakus*, P. Keskinocak, J. Swann, and M. Villarreal*. (2009) OR to Improve Disaster Supply Chain Management. In J.J. Cochran (ed.) *Wiley Encyclopedia of Operations Research and Management Science.* Vol. 6, John Wiley & Sons, 3802-3810.

9. D. S. Altner*, R. K. Ahuja, Ö. Ergun, and J. B. Orlin. (2009) Very Large-Scale Neighborhood Search. In J.J. Cochran (ed.) *Wiley Encyclopedia of Operations Research and Management Science.* John Wiley & Sons.

10. R. K. Ahuja, D. S. Altner*, Ö. Ergun, J. B. Orlin and A. Punnen. (2009) Very Large-Scale Neighborhood Search. In E. Burke and G. Kendall (ed.) *Handbook of Discrete and Combinatorial Mathematics.* Chapter 13, Springer.

11. R. Agarwal*, Ö. Ergun, L. Houghtalen*, and O. O. Ozener*. (2007) Collaboration in Cargo Transportation. A. Chaovalitwongse and F. Roberts (eds.), *Optimization and Logistics Challenges in the Enterprise.* In press. Springer-Verlag.

12. R.K. Ahuja, Ö. Ergun, J.B. Orlin, and A.B. Punnen. (2007) Very large-scale neighborhood search: theory, algorithms and applications. In T.F. Gonzalez (ed.), *Approximation Algorithms and Metaheuristics*, Computer & Information Science Series, Chapman & Hall, Boca-Raton, FL.

13. Ö. Ergun, E. Johnson, and K. Yao*. (2006) An integrated model for on-demand air transportation planning. In V. S. Zeimpekis, G. M. Giaglis, C. D. Tarantilis and I.

Minis (eds.), *Dynamic Fleet Management: Concepts, Systems, Algorithms & Case Studies* , Management Science (Production/Logistics) discipline, Springer-Verlag.

(C) **Publications in refereed conference proceedings**

1. O. Mohaddesi, J. Griffin, O. Ergun, D. Kaeli, S. Marsella, C. Harteveld, C. To Trust or to Stockpile: Modeling Human-Simulation Interaction in Supply Chain Shortages. In Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems, ACM.

2. A. Ulusan, U. Narayan, S. Snodgrass, O. Ergun, C. Harteveld. Rather Solve the Problem from Scratch: Gamesploring Human-Machine Collaboration for Optimizing the Debris Collection Problem. In Proceedings of the 27th International Conference on Intelligent User Interfaces (IUI '22), March 22–25, 2022, Helsinki, Finland. ACM, New York, NY, USA, 16 pages. https://doi.org/10.1145/3490099.3511163

3. O. Mohaddesi, Y. Sun, R. Azghandi, R. Doroudi, S. Snodgrass, Ö. Ergun, J. Griffin, D. Kaeli, S. Marsella, C. Harteveld, 2020, April. Introducing Gamettes: A Playful Approach for Capturing Decision-Making for Informing Behavioral Models. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems, ACM. Pages 1–13, https://doi.org/10.1145/3313831.3376571.

4. R. Doroudi, Azghandi, R., Feric, Z., Mohaddesi, O., Sun, Y., Griffin, J., Ergun, O., Kaeli, D., Sequeira, P., Marsella, S. and Harteveld, C., 2018, December. An integrated simulation framework for examining resiliency in Pharmaceutical supply chains considering human behaviors. In Proceedings of the 2018 Winter Simulation Conference: Simulation for a Noble Cause (WSC) (pp. 88-99). IEEE. Gothenburg, Sweden, December 9-12.

5. M. Williams*, H. Gharbi*, A. Ulusan*, Ö. Ergun, Z. Xiaofeng*, S. Zhang*, C. Harteveld, (2016, October). Toward Human in the Loop Optimization Through Game-Based Experiments. In Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts (pp. 351-358). ACM.

6. Ö. Ergun, A. Lorca*, M. Celik*, P. Keskinocak. A decision-support tool for post-disaster debris operations. Proceedings of Humanitarian Technology: Science, Systems, and Global Impact, Boston MA, May 12-14 2015. *Procedia Engineering*, Volume 107, 2015, 154-167.

7. M. Jahre, Ö. Ergun, J. Goentzel. One Size Fits All? Using Standard Global Tools in Humanitarian Logistics. Proceedings of Humanitarian Technology: Science, Systems, and Global Impact, Boston MA, May 12-14 2015. *Procedia Engineering*, Volume 107, 2015, 18-26.

8. N.M. Viljoen*, W. Cao*, M. Celik*, Ö. Ergun, J. Swann. Keeping it simple in a data-sparse environment: The case of donor breastmilk demand and supply in South Africa. Proceedings of the 41st Annual Conference of the Operations Research Society of South Africa. Muldersdrift, South Africa. September 16-19, 2012.

9. Ö. Ergun, J.A. Carbajal*, P. Keskinocak, M. Stilp*, M. Villarreal*, Managing De-

6

bris Collection and Disposal Operations, Proceedings of the Seventh Triennial Symposium on Transportation Analysis (TRISTAN VII), Tromso, Norway, June 20-25, 2010.

10. Ö. Ergun, G. Karakus, P. Keskinocak, J. Swann, and M. Villarreal*. Humanitarian Supply Chain Management - An Overview. C. Barnhart, U. Clausen, U. Lauther, and R. H. Möhring (eds). Models and Algorithms for Optimization in Logistics *Dagstuhl Seminar Proceedings*, 2009.

11. L. Gui* and Ö. Ergun. Dual Payoffs, Core and a Collaboration Mechanism Based on Capacity Exchange Prices in Multicommodity Flow Games. C. Papadimitriou and S. Zhang (eds.). *Workshop on Internet and Network Economics (WINE) 2008.* Lecture Notes in Computer Science 5385, pp 61-69, Springer 2008.

12. D. Altner* and Ö. Ergun, Rapidly Solving an Online Sequence of Maximum Flow Problems with Extensions to Computing Robust Minimum Cuts. L. Perron and M. A. Trick (eds.). *Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR) 2008.* Lecture Notes in Computer Science 5015, pp. 283-288, Springer 2008.

13. R. Agarwal* and Ö. Ergun. Designing Mechanisms for Sustainable Carrier Alliances in Transportation Networks. Proceedings of the Sixth Triennial Symposium on Transportation Analysis (TRISTAN IV), Phuket, Thailand, June 2007.

14. Ö. Özener* and Ö. Ergun. Collaborative Logistics: Cost allocation for the Shipper Collaboration Problem. Manufacturing and Service Operations Management, Atlanta, GA, June 2006.

15. Ö. Ergun, G. Kuyzu*, and M. Savelsbergh. Collaborative Logistics: The Shipper Collaboration Problem. TRISTAN, Guadeloupe, June 2004.

16. A.C. Begen*, Y. Altunbasak, and Ö Ergun. Fast heuristics for multi-path selection for multiple description encoded video streaming. IEEE International Conference on Multimedia and Expo, Baltimore, MD, July 2003.

17. A.C. Begen*, Y. Altunbasak, Ö Ergun, and Mehmet A. Begen*. Multi-path selection for real-time multiple description and layered encoded video streaming. IEEE International Conference on Computers and Communications, Antalya, Turkey, July 2003.

18. A.C. Begen*, Y. Altunbasak, and Ö Ergun. Multi-path selection for multiple description encoded video streaming. IEEE International Conference on Communications, Anchorage, AK, May 2003.

(D) **Other publications**

1. Building Resilience into the Nation's Medical Product Supply Chains. Consensus study for National Academies of Sciences, Engineering, and Medicine by the committee: W. Hopp (chair), M. Abir, G. Ball, L. Branstetter, R. Califf, A. Devereaux, O. Ergun, E. Fox, L. Glasscock, L. Grossman, W. Vanderwagen, A. Wood, M. Wynia. *National Academies Press.* Public release date: March 3, 2022.

2. Strengthening Post-Hurricane Supply Chain Resilience: Observations from Hurricanes Harvey, Irma, and Maria. Consensus study for National Academies of Sciences, Engineering, and Medicine by the committee: J. Featherstone (chair), O Ergun, K. Fulton, W. Hopp, P. Keskinocak, B. Koon, A. Lippert, C. Philip, K. Smith, S. Mannan. *The National Academies Press.* https://doi.org/10.17226/25490, 2020.

(E) **Papers submitted to refereed journals**

1. H. Johnston, O. Ergun, J. Schor, and L. Chen. Is employment status compatible with the on-demand platform economy? Evidence from a natural experiment. Under first revision for *Socio-Economic Review,* 2021.

(F) **Working papers**

1. Cost-Effectively Responding to Forecastable and Unforecastable Food Aid Needs: A Supply Chain Demonstration Model O Ergun, S Vosti, KR Tasci, W Jing, B Rogers, P Webb,. Working paper, 2021

2. S. A. Mansouri and Ö. Ergun. Turning Competition to Cooperation on the Sea: Opportunities to Reduce Emissions in Liner Shipping. Working paper, 2021.

3. L. Gui* and Ö. Ergun. Free Rider Avoidance in Resource Sharing in Multicommodity Networks. Working paper, 2021.

(G) **In Press**

1. Ö. Ergun, 'Northeastern professor creates new way to help cities recover from disasters' in Metro Boston, February 22, 2018. https://www.metro.us/news/local-news/boston/northeastern-professor-new-way-help-cities-recover-disasters.

2. Ö. Ergun, 'The road to recovery for Puerto Rico,' Expert Voices in AXIOS, October 6, 2017. https://www.axios.com/the-road-to-recovery-for-puerto-rico-1513305968-2e4ae259-a2ff-4a18-897d-8d38eeeacd90.html.

3. Ö. Ergun, 'Snow-Encrusted Boston Looks Like A Post-Natural Disaster 'Debris Event.' WGBH Boston interview, March 3, 2015. http://wgbhnews.org/post/snow-encrusted-boston-looks-post-natural-disaster-debris-event.

4. R. DesRoches, Ö. Ergun, and J. Swann. 'Haiti's Eternal Weight.' Op-ed in New York Times, July 7, 2010.

5. Ö. Ergun, P. Keskinocak, and J. Swann. 'Logistics ignored in disaster relief.' Op-ed in Atlanta Journal-Constitution, Feb 3, 2010.

6. Ö. Ergun, P. Keskinocak, J. Swann, J.H. Stamm and M. Villarreal*. 'How to Improve Humanitarian Logistics'. Analytics, Winter, 31-34, 2010.

7. Ö. Ergun, P. Keskinocak, J. Swann, and M. Villarreal*. 'Humanitarian Logistics: Uncertainty, Damaged Infrastructure, and Politics Highlight Top- 10 Challenges Facing Analysts during Disasters'. Analytics, Spring, 31-34, 2009.

8. Ö. Ergun, P. Keskinocak, and J. Swann. 'Humanitarian Relief Logistics'. ORMS Today, December 2007.

9. Ö. Ergun, P. Keskinocak, J. Swann. 'Global Red Alert: Humanitarian Logistics Research.' Georgia Tech Engineering Enterprise, Summer 2007.

10. R. Agarwal* and Ö. Ergun. 'Collaborative logistics in sea cargo industry'. ORMS Tomorrow, Fall 2005.

11. Ö. Ergun. Tips for Embedding Operations Research into Transportation Management Software. *ORMS Today*, December 1998.

(H) **Invited seminars, panels, and tutorials**

1. Examining Resiliency in Pharmaceutical Drug Supply Chains Incorporating Human Behaviors, Ivey Business School, Western University, Canada, Seminar Series, virtual February 2022.

2. Examining Resiliency in Pharmaceutical Drug Supply Chains Incorporating Human Behaviors, Penn State, Operations Research Colloquium, virtual February 2022.

3. Panelist, Setting the Stage: Supply Chains, Climate Change, Resilience, at the National Academies of Sciences, Engineering, and Medicine workshop on Climate-Resilient Supply Chains: A Workshop, virtual September 2021.

4. Optimizing Post-Disruption Response Operations to Improve Resilience of Critical Infrastructure Systems, School of Business, Rutgers University Seminar Series, virtual March 2021.

5. Optimizing Post-Disruption Response Operations to Improve Resilience of Critical Infrastructure Systems, University of Iowa, Thought Leaders: Tippie College of Business Seminar Series, virtual March 2021.

6. Optimizing Post-Disruption Response Operations to Improve Resilience of Critical Infrastructure Systems, The George Washington University, Engineering Management & Systems Engineering Seminar Series, virtual December 2020.

7. Optimizing Post-Disruption Response Operations to Improve Resilience of Critical Infrastructure Systems, HEC Montreal, Seminar Series, virtual October 2020.

8. Optimizing Post-Disruption Response Operations to Improve Resilience of Critical Infrastructure Systems, MIT Sloan School of Management Operations Management Seminar Series, Cambridge, MA, February 2020.

9. Examining Resiliency in Pharmaceutical Drug Supply Chains Incorporating Human Behaviors, Boston College Business School Seminar Series, Newton, MA, February 2020.

10. Examining Resiliency in Pharmaceutical Drug Supply Chains Incorporating Human Behaviors. Heinz College of Public Policy Seminar Series, Carnegie Mellon University, Pittsburgh, PA April, 2019.

11. Supply Chain Optimization in Global Food Aid. OR in Public Policy Panel at the ORC 65th Anniversary Conference, MIT, Cambridge, MA, November, 2018.

12. Restoration of Services in Disrupted Infrastructure Systems: Road Recovery. Henry L. Pierce Laboratory Seminar Series, Civil and Environmental Engineering, MIT, Cambridge, MA, October, 2018.

13. Panelist at the National Academies of Sciences, Engineering, and Medicine workshop on Medical Product Shortages during Disasters: Opportunities to Predict,

Prevent, and Respond sponsored by ASPR (HHS Office of the Assistant Secretary for Preparedness and Response), Washington DC, September 5-6, 2018.

14. Restoration of Services in Disrupted Infrastructure Systems : A Network Science Approach, Analytics of Resilient Cyber-Physical-Social Networks - Presidential Dream Course Lecture, University of Oklahoma, March 2018.

15. Design and Operations for Resilient Infrastructure and Communities: Do we have a saline shortage crisis in the US?, Public Lecture Series, in conjunction with Analytics of Resilient Cyber-Physical-Social Networks - Presidential Dream Course, University of Oklahoma, March 2018.

16. Restoration of Network Connectivity in Large-Scale Disaster Response Problems, INFORMS UMass Amherst Student Chapter Speaker Series, Amherst, March 2017.

17. Rethinking Global Supply Chains to Solve World Hunger, panelist at Blouin Creative Leadership Summit, New York, September 2016.

18. Analyzing and Managing Service Networks with Self-routing Users, MIT, Operations Research Center Seminar Series, September 2015.

19. Tutorial on Humanitarian Logistics, CORS-INFORMS International Meeting, June 2015.

20. Humanitarian Logistics: A case study on post-disaster debris operations, Dartmouth College, Thayer School of Engineering Seminar, February 2015.

21. Learning and Optimizing Decisions in Networks with Uncertainty: Post-disaster debris operations, Amazon.com Tech Talk, October 2014.

22. Humanitarian Logistics: A case study on post-disaster debris operations, Northwestern University, Industrial Engineering and Management Sciences Seminar Series, September 2013.

23. Humanitarian Logistics: A case study on post-disaster debris operations, MIT, Civil and Environmental Engineering, May 2013.

24. Analyzing and Managing Service Networks with Self-routing Users, Northeastern University, Mechanical and Industrial Engineering, April 2013.

25. Analyzing and Managing Service Networks with Self-routing Users, Harvard University, Computer Science Colloquium, November 2012.

26. Humanitarian Logistics: A case study on post-disaster debris operations and solving multi-period network capacity expansion problems, Texas A&M, Industrial and Systems Engineering Seminar Series, November 2012.

27. Tutorial on Humanitarian Logistics with J. Swann, INFORMS Annual Meeting, October 2012.

28. Humanitarian Logistics: A case study on post-disaster debris operations and solving multi-period network capacity expansion problems, Rensselaer Polytechnic Institute, Industrial and Systems Engineering Seminar Series, May 2012.

29. Humanitarian Logistics: A case study on post-disaster debris operations and solving multi-period network capacity expansion problems, MIT, Operations Management Seminars, March 2012.

30. Humanitarian Logistics: A case study on post-disaster debris operations and solving multi-period network capacity expansion problems, Harvard University, Wildly Applied Mathematics Seminars, February 2012.

31. Managing Collaborative Networks with Capacity Exchange Mechanisms, Harvard University, Econ/CS Group Seminars, December 2011.

32. Humanitarian Logistics: A case study on post-disaster debris operations and solving multi-period network capacity expansion problems, Michigan University, IOE Department Seminar Series, November 2011.

33. Fair and Efficient Implementation of Collective Extended Producer Responsibility Legislation, Columbia University IEOR-DRO Distinguished Seminar Series, November 2010.

34. Humanitarian Logistics, Keynote at the Moore School Industry Summit, University of South Carolina, April 2010.

35. Applying lessons learned from Haiti to US earthquake, panelist at the FEMA-US Army Corps of Engineers Senior Leaders Symposium, Washington DC., April 2010.

36. Industrial Engineering for a Better World: Doing Good with Good IE, Plenary at the ACC Undergraduate Research Conference, April 2010.

37. Pre-positioning in Humanitarian Logistics, presented at the IQPC Defence Logistics Middle East Summit 2010, Abu Dhabi, UAE, January 2010.

38. System Transformations and Capability Development for Humanitarian Logistics, presented at the IQPC Defence Logistics Middle East Summit 2009, Abu Dhabi, UAE, January 2009.

39. Strategic Planning in Fractional Aircraft Ownership Programs, presented at the Operations Management Seminar Series, Sloan School of Management, MIT, Cambridge, MA, December 2006.

40. Carrier Alliances: How Should Carrier Alliances Design Service Networks and Allocate Capacity, Revenue, and Costs?, presented at the Decision and Information Technologies Seminar Series, R.H. Smith School of Business, University of Maryland, College Park, MD, September 2006.

41. Collaborative Logistics, presented at the Operations Research Center Seminar Series, MIT, Cambridge, MA, February 2004.

42. Collaborative Logistics, presented at the National University of Singapore, Singapore, November 2003.

43. Collaborative Logistics, presented at the Department of Industrial Engineering, Kasetsart University, Bangkok, Thailand, November 2003.

44. Very Large Scale Neighborhood Search for Solving Sequencing Problems. Local Search Society Lecture Series, City University, London, UK, February 2001.

(I) **Patent applications and invention disclosures**

1. "Algorithmic Matching of Medical Staff to Medical Facilities to Support Crisis Management", Invention Disclosure approved on 4/21/2020.

IV. GRANTS AND CONTRACTS

(A) External

Ongoing

1. Yale University to Boston College ($20,834, subcontract to NEU December 2021 - November 2022), Network for Digital Economy and the Environment: The Carbon Footprint of Airbnb. PI: Ö. Ergun, co-Pi: R. Wang.

2. Environmental Law Institute and the Internet Society Foundation to Boston College ($26,666, subcontract to NEU January 2021 - January 2022), The Carbon Footprint of Airbnb: do lodging platforms raise carbon emissions?. PI: Ö. Ergun, co-Pi: R. Wang.

3. NSF ($101,412, 08/01/2020 – 07/31/2022). RAPID: Collecting supply, demand, and matching data for assigning medical staff to long term care facilities to respond to COVID-19 outbreak. PI: O. Ergun

4. NSF ($100,000, 04/15/2020 – 04/14/2022). RAPID: Rapid Monitoring and Assessment of Critical Pharmaceutical Supply Chains, PI: J. Griffin, Co-Pis: O. Ergun, D. Kaeli, C. Harteveld, S. Marsella.

5. NSF (Future of Work $1,500,000, $1,195,189 Northeastern University portion, September 2019 - August 2022) "FW-HTF-RM: Collaborative Research: Understanding the Algorithmic Workplace: A Multi-Method Study for Comprehensive Optimization of Platforms," PI from Northeastern University: H.C. Robinson, co-PIs: Ö. Ergun, M. B. Kane, S. P. Vallas. PI from Boston College: Juliet Schor.

Completed

6. Massachusetts Executive Office of Elder Affairs (MEOEA) ($184,678 May 2020 – June 2021) Matching Medical Staff to Positions at Long Term Care Facilities. PI: O. Ergun

7. USAID to TUFTS University (Food Aid Quality Review Phase III Program $650,000 subcontract to O. Ergun for 2016-2021). Supply chain oversight. PI: Ö. Ergun.

8. Deliv.com (Sponsored research, $315,000 August 2016 - July 2020). "Same day delivery operations." PI: Ö. Ergun.

9. NSF (CMMI $350,000, $161,000 Northeastern University portion, August 2015 - May 2019). "Collaborative Proposal: Resource Allocation with Learning in Dynamic and Partially Observable Networks." PI from Northeastern University: Ö. Ergun, PI from Georgia Tech: P. Keskinocak.

10. NSF ERC Planning ($99,424 September 2018 - August 2019) Planning grant: Engineering Research Center for Sharing economy - Humans, Automation, Resilience and Engineering: SHARE. PI: O.Ergun, Co-PIs: H. Koutsopoulos, J. Stephens, R. Dyal-Chand, C. Wilson.

11. NSF (CRISP Type 1, $500,000 August 2016 - July 2019). " Multi-Agent Modeling Framework for Mitigating Distributed Disruptions in Critical Supply Chains." PI: J. Griffin, Co-PIs: Ö. Ergun, C. Harteveld, D. Kaeli, S. Marsella.

12. NSF (CMMI $440,989, $220,000 Sub-contracted to Northeastern University, April 2014 - July 2018). "Staff Reassignment: Negotiations and Compromises to Enhance Stable Matching." PI: J. Swann Co-PI: Ö. Ergun.

13. UPS Foundation ($120,000 2012-2016). Scholarships for the Georgia Tech certificate program in Health and Humanitarian Logistics. PIs: Ö. Ergun, P. Keskinocak, J. Swann

14. Support for the 2015 Health and Humanitarian Logistics Conference ($45,000 January 2015 - December 2015) PIs: Ö. Ergun, J. Goentzel, P. Keskinocak, J. Swann., and L. Van Wassenhove.
    - UPS Foundation ($30,000)
    - Imperial Logistics ($10, 000)
    - Georgia Tech ISyE ($5,000)

15. Grant from the Zalesky family ($415,000, $138,000 approximate amount to Ö. Ergun for January 2010 - January 2016). Humanitarian Logistics. PIs: Ö. Ergun, P. Keskinocak, J. Swann.

16. Grant from Andrea Laliberte and Coach Inc ($124,000, $41,000 approximate amount to Ö. Ergun for May 2009 - December 2015). Humanitarian Logistics. PIs: Ö. Ergun, P. Keskinocak, J. Swann.

17. Air Force Office Of Scientific Research Program ($ 520,804, $200,000 approximate amount to Ö. Ergun for April 2012 - March 2015). New Approaches for Very Large-Scale Integer Programming. PI: G. Nemhauser, Co-PI: Ö. Ergun.

18. NSF (CMMI $412,268, $137,000 approximate amount to Ö. Ergun for July 2010 - June 2014). Fair and Efficient Implementation of Collective Extended Producer Responsibility Legislation. PI: B. Toktay, Co-PIs: A. Atasu, and Ö. Ergun.

19. NSF (CMMI $330,00, $165,000 approximate amount to Ö. Ergun for April 2010 - March 2014). Managing Debris Collection and Disposal Operations. PI: Ö. Ergun, Co-PI: P. Keskinocak.

20. United Nations World Food Program, Logistics Development Unit ($32,000 for August 2013 - December 2014). Supply Chain Optimization and Key Performance Indicators. PI: Ö. Ergun.

21. Support for the 2014 Health and Humanitarian Logistics Conference ($55,000 for September 2013 - December 2014) PIs: Ö. Ergun, J. Goentzel, P. Keskinocak, J. Swann., and L. Van Wassenhove.
    - UPS Foundation ($25,000).
    - Walmart ($10,000).
    - Ryder Mexico($10,000).
    - Georgia Tech: Executive Vice President for Research ($10,000).

22. Citation Shares ($320,000, $200,000 approximate amount to Ö. Ergun for 2002-2014). Scheduling for Time-Shared Jets. PI: Dr. E. Johnson, Co-PI: Ö. Ergun.

23. Support for the 2013 Health and Humanitarian Logistics Conference ($35,000 September 2012 - August 2013) PIs: Ö. Ergun, P. Keskinocak, J. Swann.

- UPS Foundation ($25,000).
- Georgia Tech: Executive Vice President for Research ($10,000).

24. United Nations World Food Program, Logistics Development Unit ($39,674 for August 2012 - May 2013). Supply Chain Optimization and Key Performance Indicators. PI: Ö. Ergun.

25. Gift from Speedwell Foundation ($ 325,000, $40,000 approximate amount to Ö. Ergun for September 2011 - August 2012). Reducing Seismic Risks for Developing Countries in the Caribbean (CHAMPS). PI: R. DesRoches Co-PIs: Ö Ergun, S. French, D. Frost, P. Keshinocak, L. Kovalchick, K. Kurtis, P. Pekgun, G. Rix, J. Swann, A., Chakos Other Investigators: B. Lynch, R. Uwaifo, P. Webster.

26. Centers for Disease Control and Prevention ($52,805, $25,000 approximate amount to Ö. Ergun for September 2011 - July 2012). Evaluation of Health Kits. PI: J. Swann, Co-PI: Ö. Ergun

27. Support for the 2012 Health and Humanitarian Logistics Conference ($62,500 September 2011 - August 2012) PIs: Ö. Ergun, P. Keskinocak, J. Swann.
    - UPS Foundation ($25,000), Focus Humanitarian Assistance ($5,000), SAIC ($5,000), Northrop Grumman ($2,500)
    - Georgia Tech: Executive Vice President for Research ($10,000), Health Systems Institute ($5,000), College of Engineering ($5,000), Institute for Leadership and Entrepreneurship ($5,000), Distance Learning and Professional Education (contribution in kind).

28. Support for the 2011 Health and Humanitarian Logistics Conference ($62,500 September 2010 - August 2011) PIs: Ö. Ergun, P. Keskinocak, J. Swann.
    - UPS Foundation ($25,000), Focus Humanitarian Assistance ($5,000), SAIC ($5,000), Northrop Grumman ($2,500)
    - Georgia Tech: Executive Vice President for Research ($10,000), Health Systems Institute ($5,000), College of Engineering ($5,000), Institute for Leadership and Entrepreneurship ($5,000), Distance Learning and Professional Education (contribution in kind).

29. NSF (RAPID $38,800, $13,000 approximate amount to Ö. Ergun for April 2010 - March 2011). RAPID: Earthquake Debris Management in Haiti: Data-Driven Decision-Support. National Science Foundation PI: Ö. Ergun, Co-PIs: R. DesRoches, P. Keskinocak.

30. United Nations World Food Program ($14,000 for 2010). Supply Chain Optimization. PI: Ö. Ergun.

31. Support for the 2010 Health and Humanitarian Logistics Conference ($55,500 September 2009 - August 2010) PIs: Ö. Ergun, P. Keskinocak, J. Swann.
    - UPS Foundation ($10,000), Kuehne & Nagel ($5,000), Coca Cola Company ($5,000), Focus Humanitarian Assistance ($5,000)
    - Georgia Tech: Distance Learning and Professional Education Program ($10,000), ISYE ($5,000), Health Systems Institute ($5,000), College of Engineering ($5,000),

Supply Chain and Logistics Institute ($2,000), GTRI ($3,000), College of Computing ($500).

32. NSF (CMMI $30,000 for Sept 2008 - Nov 2009). Conference on Disaster Preparedness and Response. PI: Dr. P. Keskinocak, Co-PIs: Ö. Ergun and J. Swann.

33. NSF CAREER (DMI-0238815, $400,000 for 2003-2010). Efficient Network Design and Routing Algorithms for Logistics and Communications Networks. PI: Ö. Ergun, awarded February 2003.

34. NSF ITR (DMI-0427446, $1,100,000, $200,000 approximate amount to Ö. Ergun for 2004-2008). (ITR-ECS)-(DMC): Collaborative Research: Collaborative Logistics. PI: Dr. Savelsbergh, co-PI's: Drs. J. Bartholdi, Ö. Ergun A. Kleywegt, G. Nemhauser and A. Schulz ($200,000 subcontracted to MIT), awarded September 2004.

35. USDOT/FHWA award to Transportation Research Center at Georgia Tech ($30,000 subcontracted amount to Ö. Ergun for 2007-2009). Managing Transportation Networks with Selfish Agents. PI: Ö. Ergun, awarded August 2007.

36. ASTAR and EDB of Singapore award to TLI-Asia Pacific ($120,000 approximate amount to Ö. Ergun for 2003-2005). Sea-Cargo Logistics. PI: Dr. G. Nemhauser, co-PI's: Drs. Ö. Ergun, A. Kleywegt, and J. Swann.

(B) **Internal**

   Ongoing

1. Northeastern University Covid Research Funding for ($25,000 04/2020 – -6/2022) Matching Medical Staff to Positions at Long Term Care Facilities. PI: O. Ergun
   Completed

2. TIER 2 Northeastern University ($75,000 October 2018) Engineering Research Center for the Sharing Economy - Humans, Automation, REsilience - SHARE. PI: O.Ergun, Co-PIs: Y. Bart, D. Kaeli, J. Stephens, for supporting the ERC proposal writing activities.

3. Global Resilience Institute seed grant ($75,000, $36,000 to Ö. Ergun for July 2017 - July 2018). "Modeling Tools for the National Geospatial Intelligence Agency." Pi: Ö. Ergun, Co-PI: T. Eliassi-Rad.

4. TIER 1 Northeastern University ($49,994, $25,000 approximate amount to Ö. Ergun for July 2015 - September 2016). " Human in the Loop Design and Optimization for Resilient Infrastructure Networks." PI: C. Harteveld, Co-PI: Ö. Ergun.

5. Grant from Georgia Tech Distance Learning and Professional Education ($50,000 August 2010 - June 2011). Teaching Material and Course Development in Humanitarian Logistics. PIs: Ö. Ergun, P. Keskinocak, J. Swann.

6. Georgia Tech Bradley-Turner Servant Leadership Funds ($20,000, $15,000 approximate amount to Ö. Ergun for Oct 2008 - Sept 2010). Servant Leadership through Undergraduate Projects in Humanitarian Logistics Humanitarian Logistics. PIs: Ö. Ergun, P. Keskinocak, J. Swann.

7. Harold R. and Mary Anne Nash Junior Faculty Endowment Fund ($89,225, $30,000 approximate amount to Ö. Ergun for 2008-2010). Humanitarian Relief Logistics. PIs: Ö. Ergun, P. Keskinocak, J. Swann.

8. Georgia Tech (FRP $30,000, $5,000 approximate amount to Ö. Ergun for July 2008 - June 2009). Focused Research Program in Humanitarian Response. PI: Dr. J. Swann, Co-PI's: A. Amekudzi, M. Best, M. Castillo, Ö.Ergun, P. Keskinocak, L. McCook, and E. Whitaker.

V. TEACHING

(A) **Courses Taught**

At Northeastern University

1. IE7374 Special Topics in IE: Sharing Economy Systems: Design, Policy and Governance, co-taught with B. Heydari (Spring 2019)

2. MEIE 4701 Capstone Design (Summer 1 2015 and Spring 2016)

3. OR 7245 Network Analysis and Advanced Optimization (Spring 2015, 2016, 2017, 2018,2020,2021,2022)

4. OR 7310 Logistics, Warehousing and Scheduling (Fall 2014, 2015, 2016, 2017, 2018, 2019, 2020,2021)

At Harvard University

1. AM 107 Graph Theory and Combinatorics (Spring 2013)

2. AM 121 Intro to Optimization Models and Methods (Spring 2012)

3. AM 221 Advanced Optimization (Fall 2011, Fall 2012)

At Georgia Institute of Technology

1. ISyE 3103 Supply Chain Modeling: Logistics (Spring 2002, Spring 2005, Spring 2007, Fall 2008)

2. ISyE 4231 Optimization (Fall 2002)

3. ISyE 4106 Senior Design (Spring 2004, Spring 2006, Spring 2007, Spring & Fall 2008, Spring & Fall 2009, Spring & Fall 2010, Spring 2013)

4. ISyE 4133 Advanced Optimization (Fall 2010)

5. ISyE 8801 Designing Heuristics for Optimization (Spring 2003, Fall 2006)

6. ISyE 6662 Optimization 2 (Spring 2004)

7. ISyE 6320 Health and Public Applications of OR/MS (Fall 2008, Spring 2011)

8. ISyE 7686 Advanced Combinatorial Optimization (Spring 2009)

(B) **Curriculum development**

1. *Advanced Optimization* (AMPH 221, Applied Mathematics, Harvard University), a graduate level course initially offered in Fall 2011. The course covers advanced techniques for modeling and solving large and difficult optimization problems as well as the core theory and geometry of linear inequalities, integer programming and combinatorial optimization. Topics include geometry and theory of linear programming,

solving large scale optimization problems using column and constraint generation, network flows, computational complexity, basic integer programming models and algorithms. Emphasis is on developing an understanding of the core theory and solution methods.

2. *Health and Humanitarian Applications of Operations Research and Management Science* (ISyE 8813 and ISyE 6320, Georgia Tech) (with Dr. Keskinocak), a graduate level project course initially offered in Fall 2008. The course has a set of research-oriented projects with different humanitarian and health organizations and a student team is assigned to each project. The overall goals of each team are (1) to do an analysis and develop methods/insights that will be useful to the partner organization and have an impact in practice, and (2) to conduct research and write the findings for an academic publication.

3. *Heuristics for Optimization* (ISyE 8801, Georgia Tech), a Ph.D. level special topics course initially developed and offered in Spring 2003. The aim of the course is to give in depth knowledge on design of heuristics (new and old) for hard optimization problems. The implementation details were also emphasized through a semester long computational project students completed.

4. *Graduate Seminar in Combinatorial Auctions* (ISyE 8900, Georgia Tech) (with Drs. Keskinocak and Sokol), a Ph.D. level seminar course developed and offered in Fall 2002. The course aimed to introduce students to the field of combinatorial auctions and to explore the new and advanced research in this area, as well as improve the presentation skills of the participants.

(C) **Teaching materials**

1. Ö. Ergun, L. Gui, J. L. Heier Stamm, P. Keskinocak and J. L. Swann. "Supply Chain Coordination and Collaboration in Haiti: A Case Study of The Salvation Army's Use of the UPS Trackpad," teaching case and game. 2012. Based on our interaction in Haiti with the Salvation Army and UPS, the case describes humanitarian supply chain operations involving many different parties, such as government, military, private, and non-governmental organizations and individuals. Well coordinated interactions between parties can capitalize on synergies and lead to improved humanitarian outcomes, yet there are many barriers to cooperation. We document the benefits of a public-private partnership that formed in the aftermath of the January 2010 earthquake in Haiti. The partnership contributed to improved operations in one of the many camps for internally displaced persons. Motivated by this case study and our discussions with organizations active in the response to the earthquake, we introduce cooperative game theory models and explore the insights they provide toward facilitating coordination in future humanitarian operations.

2. M. Celik, W. Cao, N. Viljoen, Ö. Ergun and J.L. Swann, "MILK: A Network Expansion Model for the South African Breastmilk Reserve," teaching case and game. 2012. The MILK Case Study is a by-product of an applied research project conducted for the benefit of South African Breastmilk Reserve (SABR). Given an established description of SABR's operations, current regional network and future goals,

we describe the development of a national supply chain network. More specifically, the problem of deciding where to open facilities and the assignment of product flows between the facilities as well as trade offs between efficiency and equity are explored. While designing the case study a modular approach was followed so that different modules of the case study can be presented as stand-alone case studies or in conjunction depending on the intention of the instructor, the audience and the length of time available.

3. M. Drake, Ö. Ergun, G. Karakus, P. Kerl, P. Keskinocak, J. Swann, M. Villarreal, "Humanitarian Response Planning at the Home Depot," teaching case. (Third place, 2010 INFORMS Best Teaching Case Award) Motivated by real world problems generalized from a series of interviews with Home Depot's disaster response team, the goal of this case study is to exemplify the application of operations research concepts, methodology and intuition to challenges faced in relief logistics, which may be different than the ones typically faced in the idealized commercial supply chain settings. Issues include unpredictable disasters of unpredictable magnitude that lead to unpredictable demand, the speed in which a supply chain must be constructed once a disaster is realized, the limited visibility of needs, and the need for dynamic decisions.

4. Ö. Ergun, G. Karakus, P. Keskinocak, J. Swann, M. Villarreal. "Big Depot Hurricane Planning," classroom game. This game provides a synthesis between contracting and allocating inventory under demand uncertainty. It has a table-top structure, starting with general information about the supply chain setting, conditions and operations; then, every step begins with some data and information that should be used to make decisions about expected issues in the exercises. Players assume roles, which may well affect their incentives and priorities, and therefore the decisions they make.

5. Ö. Ergun, J. L. Heier, P. Keskinocak, and J. Swann, "Lessons in Disaster Supply Chain Management from Waffle House Restaurants," teaching case. (First runner-up, 2009 INFORMS Best Teaching Case Award) Natural and man-made disasters present an increasing challenge to the management of supply chains both for businesses and humanitarian response agencies. Sharing best practices enables the continued improvement of processes that can further impact lives and livelihoods in the event of a disaster. This case study highlights the experiences of Waffle House Restaurants, which has been nationally recognized for its response to hurricanes in the United States. It also includes questions that instructors or managers can use to help students or supply chain professionals develop analytical approaches to the challenges presented by disaster response.

(D) **Professional teaching**

1. *Distribution Network Design* and *Transportation Decisions*, Health and Humanitarian Logistics Professional Education Program, Georgia Tech, 2012-present.

2. *Supply Chain Optimization,* Executive Masters for Humanitarian Logistics Management, University of Lugano, Switzerland, 2011 - 2017.

(E) **Individual Student Guidance**

Ph.D. students at Northeastern University

1. Aybike Ulusan. Thesis title: Optimizing Post-Disruption Response and Recovery Operations to Improve Resilience of Critical Infrastructure Systems. Graduated July 2019. Current Position: Operations Research Analyst at United Airlines.

2. Tina Rezvanian. Thesis title: Integrating Data-Driven Forecasting and Large-Scale Optimization to Improve Humanitarian Response Planning and Preparedness. Graduated September 2019. Current Position: Operations Research Analyst at Adobe.

3. Rozhin Doroudi . Thesis title: Human Behavior In Pharmaceutical Supply Chains: Leveraging Artificial Intelligence to Mitigate the Impacts of Drug Shortages. Graduated June 2020. Current Position: Data Scientist at Liberty Mutual Insurance.

4. Necati Duman. Thesis title: Applications in Shared and Crowdsourced Last-Mile Delivery. Graduated April 2021. Current Position: Operations Research Analyst at Target.

5. Mahsa Ghanbarpour. Thesis title: Proactive Planning For Slow Onset Weather Events To Adjust Hospital Operations. Graduated August 2021. Current Position: Data Scientist at Liberty Mutual Insurance.

6. Matthew Williams. Research topic: Matching algorithms with applications for the Coast Guard.

7. Weijia Jing. Research topic: Supply chain design and optimization for USAID Food For Peace Program.

8. Hamid Reza Zarei. Research topic: Matching staff to medical facilities in response to the Covid-19 outbreak.

Ph.D. students at Georgia Institute of Technology

9. Maciek Novak (with Dr. Chelsea White). Thesis title: The split pick-up and delivery problem. Graduated May 2005. Current position: Associate Professor at Loyola University Chicago Quinlan Business School. Granted tenure Spring 2012.

10. Gultekin Kuyzu (with Dr. Martin Savelsbergh). Thesis title: Procurement in truckload transportation. Graduated May 2007. Current position: Assistant Professor TOB University Industrial Engineering, Turkey.

11. Kathe Yao (with Dr. Ellis Johnson). Thesis title: Combined crew-pairing and fleet-assignment for time-shared jets. Graduated May 2007. Current position: Supply Chain Logistics Manager at AT&T - BellSouth Corporation.

12. Richa Agarwal. Thesis title: Network design and alliance formation for liner shipping. Graduated from the Algorithms, Combinatorics and Optimization program, August 2007. Current position: Research Scientist at Apple.
   - Runner-up, INFORMS 2007 Computing Society Student Paper Competition with "Ship scheduling and network design for cargo routing in liner shipping."

- Honorable Mention, SAIC 2007 Georgia Tech Student Paper Competition with " Network design and allocation mechanisms for carrier alliances in liner shipping."

13. Lori Houghtalen (with Dr. Joel Sokol). Thesis title: Designing management mechanisms for carrier alliances. Graduated August 2007. Initial position: Assistant Professor at Babson College. Current position: Assistant Professor at Abilene Christian University Industrial Engineering.

14. Doug Altner. Thesis title: The network interdiction problem. Graduated August 2008. Initial position: Assistant professor at US Naval Academy, Current position: OR Analyst at MITRE Corporation.

15. Orsan Ozener (with Dr. Martin Savelsbergh). Thesis title: Cost allocation in collaborative logistics networks. Graduated December 2008. Current position: Assistant Professor at Ozyegin University Industrial Engineering, Turkey.

16. Fei Qian. Thesis title: Scheduling problems for fractional airlines. Graduated from the Algorithms, Combinatorics and Optimization program December 2010. Initial position: Operations Research Analyst at CitationAir.

17. Jessica Heier Stamm (with Dr. Julie Swann). Thesis title: Design and analysis of humanitarian and public health logistics systems. Graduated December 2010. Current position: Assistant Professor at Kansas State University Industrial Engineering.
    - Winner, Bi- annual Best Doctoral Thesis in Humanitarian Logistics Award 2013, Humanitarian Logistics and Supply Chain Research Institute, Hanken School of Economics.
    - Winner, INFORMS Transportation Science and Logistics Society Dissertation Prize, 2011.
    - New Faces of Engineering 2008, National Engineers Week Foundation, chosen to represent Institute of Industrial Engineers (IIE).

18. Luyi Gui (with Drs. Atalay Atasu and Beril Toktay). Thesis title: Managing and optimizing decentralized networks with resource sharing. Graduated May 2013. Current position: Assistant Professor UC Irvine The Paul Merage School of Business.
    - Blanchard Graduate Scholarship Award 2012. Scholarship is awarded to an exemplary ISyE graduate student in sustainability to honor 2012 Blanchard Award recipient Ray Anderson.
    - ARC Fellowship Georgia Tech Fall 2009, "Collaboration Mechanism Design under Data Uncertainty in Multicommodity Flow Networks."

19. Yaxian Li (with Dr. Nemhauser). Thesis title: Lower bounds for integer programming problems. Graduated May 2013. Current position: Operations Research Analyst at United Airlines.

20. Mallory Soldner (with Dr. Swann). Thesis topic: Design, improvement, and measurement of supply chain operations at large non-governmental . Graduated June 2014. Current position: UPS Data Analytics.

- New Faces of Engineering 2013, National Engineers Week Foundation, chosen to represent Institute of Industrial Engineers (IIE).

21. Melih Celik (with Dr. Keskinocak). Thesis topic: Dynamic and stochastic optimization in the context of disaster operations. Graduated June 2014. Current position: Assistant Professor at Middle Eastern Technical University Industrial Engineering, Turkey.

22. Isil Alev (with Drs. Atalay Atasu and Beril Toktay). Thesis topic: Operational perspectives on extended producer responsibility for durable and consumable goods. Graduated August 2015. Current position: Assistant Professor at Boston College Carroll School of Management.
    - Winner, The Production and Operations Management Society (POMS) College of Sustainable Operations Dissertation Proposal Award 2013, with her thesis proposal "Operational perspectives on extended producer responsibility for durable and consumable goods."

23. Zihao Li (with Dr. Swann). Allocating Resources to People with Preferences. Graduated August 2017.

24. Kael Stilp (with Dr. Keskinocak). Thesis topic: Network design and optimization. Expected graduation from the ACO program December 2015.
    - ARC Fellowship Georgia Tech Fall 2008, "Searching for the Core with Column Generation."

Masters supervised at Northeastern University

1. Keziban Tasci. Analyzing USAID Food Aid Supply Chains. May 2016 - present.

2. Weijia Jing. Supply chain optimization tools for USAID Food For Peace Program. Graduated August 2019.

3. Peiqi Wang. Fertilizer Supply Chains Optimization Tool For WFP Ethiopia. Graduated July 2019.

4. Ramiro Buteler. Designing product flow logistics for ClearMotion.The Gordon Engineering Leadership Program and Masters in Industrial Engineering. February - July 2018.

5. Brian Yarbrough. Analyzing Wireless Sensor Network Collapse. The Gordon Engineering Leadership Program and ECE Masters program. September 2016 - July 2017.

6. Ryan C. Hamel. Challenge project title: USCG Aids to Navigation Product Line and Supply Chain Operational Management. The Gordon Engineering Leadership Program and Masters in Industrial Engineering. September 2014 - June 2015.

Masters supervised at Georgia Institute of Technology

1. Zhaofu Cao. Thesis title: Container Trucking Efficiency Analysis. Georgia Tech National University of Singapore Dual Masters Degree received December 2003.

2. Kai Siang Lee. Thesis topic: A Review Of Transport Operations and Structures for CISCO Recall. Georgia Tech National University of Singapore Dual Masters Degree received December 2004.

3. Wang Rui. Thesis topic: New strategies in online grocery delivery. Georgia Tech National University of Singapore Dual Masters Degree received December 2007.

Undergraduate thesis supervised

1. Chris Coey (Applied Mathematics, Harvard University). Perishable food aid supply chains. Fall 2012.

2. Carl Dahl (Applied Mathematics, Harvard University). Facility location problem in service networks with self-routing users. Spring 2013.
   - Winner, Thomas T. Hoopes Prize, Harvard University 2013, with his senior thesis "Facility location problem in service networks with self-routing users."

3. Lily Hsiang (Applied Mathematics, Harvard University). Optimization of a breast-milk donation network in KwaZulu-Natal, South Africa. Spring 2013.

4. Youn Sang Richard Hwang (Applied Mathematics, Harvard University). On forecasting infrastructure developments and capital allocations in America's shale gas revolution. Spring 2013.

Independent study with graduate students

1. Mehmet Talha Dulman. Same day delivery logistics. May 2016 - August 2017.

2. Cheng-Huang Hung (with Drs. Ahmed and Sokol). Inverse shortest path length problem. Fall 2001.

3. Demet Batur. Dynamic routing. Summer 2002.

4. Burak Karacik. Very large scale neighborhood search for the constrained TSP. Fall 2002.

5. Ozgun Caliskan Demirag (with Dr. Savelsbergh). Algorithms for a constrained cycle covering problem. Fall 2002 & Spring 2003.

6. Ali C. Begen (with Dr. Altunbasak). Multi-path selection algorithms for multiple description video streaming. Fall 2002 & Spring 2003.

7. Gizem Keysan. Very large scale neighborhood search in dynamic routing. Fall 2003.

8. Mario Cesar Velez. Dynamic routing algorithms and augmentation networks. Spring 2004.

9. Nelson Uhan. Network interdiction problem. Visiting student from MIT Operations Research Center during Spring 2006.

10. Chien-Hung Chen. Local search in machine scheduling. Spring 2007.

11. Ali Ekici (with Dr. Pinar Keskinocak). Real world scheduling and routing problems. Fall 2006 - Fall 2007.

12. Paul Kerl (with Drs. Pinar Keskinocak and Julie Swann). Humanitarian logistics. Fall 2007 - Spring 2008.

13. Monica Villarreal (with Drs. Pinar Keskinocak and Julie Swann). Humanitarian logistics. Fall 2008 - Summer 2009.

14. Melih Celik (with Dr. Julie Swann). Blood allocation for Zambia. Fall 2009 - 2010.

15. Mallory Soldner (with Dr. Julie Swann). Blood allocation for Zambia. Fall 2009 - 2010.

16. Qianyi Wang. Decentralized network games. Spring 2010.

17. Stefania Stefansdottir (with Dr. Julie Swann). Optimizing and evaluating health kit design. Fall 2010 - Spring 2012.

18. Jiajin Yu (Computer Science, Georgia Tech). Atomic Congestion games. Spring 2011 - Spring 2012.
    - Jiajin Yu, ARC Fellowship Georgia Tech Spring 2012, "Atomic Congestion Games with Taxes on Resources."

19. Alvaro Lorca (with Dr. Pinar Keskinocak). Long term infrastructure decisions for debris disposal and re-use operations. Fall 2011 - Fall 2012

Independent study with undergraduate students

1. Shahd Tagelsir (Harvard University). Optimizing fertilizer distribution logistics for World Food Program Ethiopia country office. September 2017 - present.

2. Alyssa Caganda (Northeastern University). Forecasting demand for UNHCR. September 2016 - August 2017.

3. Ramzi Talhouk (Northeastern University). Data analytics for USAID Food Aid Supply Chains. September 2016 - December 2017.

4. Candis Head. Scheduling for ocean carriers. Fall 2005.

5. Nitza Arroya. Dynamic vehicle routing. Fall 2002.

6. Mike Holman. Efficient insertion algorithms for vehicle routing problems with time windows. Spring 2003.

7. Owen Carroll. Stochastic optimization for time share jets. Summer 2008.

8. Lawrence Lee. Supply chain optimization for the World Food Programme. Spring 2009.

9. Joy Peak. Supply chain optimization for the World Food Programme. Fall 2009.

10. James Wade. Supply chain optimization for the World Food Programme. Spring 2009 - Spring 2011.
    - Winner, 2010 Outstanding Undergraduate Researcher Georgia Tech College of Engineering with research on " Supply Chain Improvements for the World Food Programme."
    - Honorable mention, 2010 INFORMS undergraduate student paper competition with " Supply Chain Improvements for the World Food Programme."
    - Runner-up, SAIC 2009 Georgia Tech Student Paper Competition with " Supply Chain Optimization for the World Food Programme."

11. Steven Grimes. Humanitarian Logistics. Spring 2010.

12. Chris Coey (Applied Mathematics, Harvard University). Multi-commodity flow models for water distribution in emergencies. Spring 2012.

13. Lily Hsiang (Applied Mathematics, Harvard University). Incentives in network optimization. Fall 2012.

14. Youn Sang Hwang (Applied Mathematics, Harvard University). Applications of OR in healthcare. Fall 2012.

Doctoral thesis committees

1. Ahmet Keha (Georgia Tech ISyE), 2003.
2. Cheng-Huang Hung (Georgia Tech ISyE), 2003.
3. Kai Huang (Georgia Tech ISyE), 2004.
4. Wuthichai Wongthatsanekorn (Georgia Tech ISyE), 2005.
5. Brian Lewis (Georgia Tech ISyE), 2005.
6. Maciek Novak (Georgia Tech ISyE), 2005.
7. Ali C. Begen (Georgia Tech ECE), 2006.
8. Gutekin Kuyzu (Georgia Tech ISyE), 2006.
9. Burak Karacik (Georgia Tech ISyE), 2006.
10. Ozgun Caliskan Demirag (Georgia Tech ISyE), 2007.
11. Amandeep Parmar (Georgia Tech ISyE), 2007.
12. Lori Houghtalen (Georgia Tech ISyE), 2007.
13. Richa Agarwal (Georgia Tech ISyE), 2007.
14. Kathe Yao (Georgia Tech ISyE), 2007.
15. Steve Morris (Georgia Tech ISyE), 2007.
16. Umut Demircin (Georgia Tech ECE), 2008.
17. Doug Altner (Georgia Tech ISyE), 2008.
18. Orsan Ozener (Georgia Tech ISyE), 2008.
19. Emrah Uyar (Georgia Tech ISyE), 2008.
20. Michael Hewit (Georgia Tech ISyE), 2009.
21. Gizem Keysan (Georgia Tech ISyE), 2009.
22. Ali Ekici (Georgia Tech ISyE), 2009.
23. Kael Stilp (Georgia Tech ACO), 2009.
24. Fei Qian (Georgia Tech ACO), 2010.
25. Jenifer Heier Stamm (Georgia Tech ISyE), 2010.
26. Anotonio Carbajal (Georgia Tech ISyE), 2011.
27. Luyi Gui (Georgia Tech ISyE), 2013.
28. Yaxian Li (Georgia Tech ISyE), 2013.
29. Marie-Eve Rancourt (HEC Montreal), 2013.
30. Duc-Minh Vu (CIRRELT Montreal), 2014.
31. Onur Arslan (Northeastern U. MIE), 2015.
32. Isil Alev (Georgia Tech ISyE), 2015.
33. Nooshin Valibeig (Northeastern U. MIE), 2018.
34. Kayla Cummings (MIT ORC), 2018.
35. Tasnim Ibn Faiz (Northeastern U. MIE), 2018.
36. Soodabeh Milanlouei (Northeastern U. MIE), 2018.

VI. **SERVICE**

(A) **Campus contributions**

1. Member, Northeastern University School of Public Policy and Urban Affairs, Director Search Committee, September 2021 - present.

2. Member, Northeastern University School of Engineering Graduate Affairs Committee, September 2019 - present.

3. Member, Northeastern University School of Engineering Research Affairs Committee, September 2017 - present.

4. Chair, Northeastern University Department of Mechanical and Industrial Engineering Graduate Affairs Committee, September 2014 - 2020 (member), 2020-present (chair).

5. Elected senator, Northeastern University Faculty Senate, January 2019 - present.

6. Co-lead, Resilient Systems research area, Northeastern University Department of Mechanical and Industrial Engineering, September 2017 - present.

7. Member, Northeastern University School of Engineering Promotion and Tenure Committee, September 2017 - 2019.

8. Member, Northeastern University Department of Mechanical and Industrial Engineering Faculty Search Committee, September 2017 - 2020.

9. Member of 5 mentoring committees, 3 as the chair.

10. Advisor to the Northeastern University INFORMS student chapter, 2015 - present.

11. Graduate advisor to the Industrial Engineering Program, Northeastern University Department of Mechanical and Industrial Engineering, September 2014 - July 2020.

12. Member, Northeastern University Department of Mechanical and Industrial Engineering Faculty Search Committee, September 2016 - June 2017.

13. Member, Northeastern University Department of Mechanical and Industrial Engineering Faculty Search Committee, September 2015 - June 2016.

14. Member, Northeastern University Department of Mechanical and Industrial Engineering Strategic Planning Committee, July 2015 - present.

15. Member, Northeastern University School of Engineering Graduate Affairs Committee, September 2014 - August 2015.

16. Member of organizing committee for the establishment of the Interdisciplinary Statistical Science PhD. Program at Northeastern University, 2016 .

17. Member, Northeastern University Department of Mechanical and Industrial Engineering Faculty Search Committee, September 2014 - July 2015.

18. Organizer, Harvard University Institute for Applied Computational Science Computational Challenge, 2012.

19. Co-founder and co-director, Humanitarian Logistics Research Center at the Supply Chain and Logistics Institute, Georgia Tech, 2007- 2016.

20. Member, Georgia Tech ISyE Department Chair Search Committee, June 2010 - 2011.

21. Member, Georgia Tech ISyE Awards Committee, 2009 - 2011.

22. Chair, Georgia Tech ISyE Mentoring Committee, January 2009 - 2010.

23. Member, Georgia Tech College of Engineering, Promotion, Tenure and Critical Review Committee, 2008-2010.

24. Member, Georgia Tech ISyE Ph.D. comprehensive examination committee in Optimization, 2008-2009.

25. Chair, Georgia Tech ISyE Graduate Committee, 2006-2007.

26. Member, Georgia Tech ISyE Graduate Committee, 2005-2007 and 2009 - 2011.

27. Developed and organized Georgia Tech ISyE Logistics and Supply Chain Seminar series, Spring 2005.

28. Organized and ran Collaborative Logistics group meetings and seminars, 2004-2005.

29. Member, Ph.D. comprehensive examination committee at Georgia Tech in Algorithms, Combinatorics, and Optimization (joint program with CoC and Math), 2004 and 2009.

30. Member, Georgia Tech ISyE Ph.D. comprehensive examination committee in Manufacturing and Logistics, 2002-2003.

31. Coordinator, MIT Operations Research Center seminar series, Fall 1998.

32. Vice-president, MIT INFORMS student chapter, 1997-1998.

(B) **Professional contributions**

Service in professional organizations

1. Vice President of Membership and Professional Recognition, INFORMS Board of Directors, 2011 - 2015.

2. Past-President, President, President-elect INFORMS Section on Public Programs, Service and Needs, 2012-2014.

3. Member. Prize committee, INFORMS Doing Good with Good OR Student Paper Competition, 2010.

4. Co-chair. Prize committee, INFORMS Doing Good with Good OR Student Paper Competition, 2009.

5. Co-chair. Committee for establishing the INFORMS Doing Good with Good OR Student Paper Competition, 2008.

6. Senior VP-Communications. INFORMS Forum for Women in OR/MS (WORMS), since Spring 2008.

7. Junior VP-Communications. INFORMS Forum for Women in OR/MS (WORMS), Spring 2007 - 2008.

8. Judge MSOM Student Paper Competition, INFORMS, 2007.

9. Volunteer for the INFORMS Public Awareness Committee (PAC) plan to reach out and introduce high school math teachers to the history and concepts of operations research, 2002.

Editorial

1. Department editor, Manufacturing and Service Operations Management Journal (MSOM), Health, Environment and Society Department, 2021 - present.

2. Area editor, Operations Research, Policy Modeling and the Public Sector Area, 2018 - present.
3. Associate editor, IISE, Logistics and Supply Chain division, 2020 - present.
4. Associate editor, Operations Research, Policy Modeling and the Public Sector Area, 2012 - 2017.
5. Associate editor, Surveys in Operations Research and Management Science, 2013 - 2017.
6. Area editor, Computers & Industrial Engineering, Logistics and Inventory Systems Area, 2012 - 2015.
7. Associate editor, MSOM special issue on Environment, 2011 - 2012.
8. Co-editor with P. Keskinocak and J. Swann. INTERFACES: Special Issue on Humanitarian Applications: Doing Good with Good OR, 2009-2010.

National Committees

1. Member of the National Academies Committee on Security of America's Medical Supply Chain. September 2020 - March 2022.
2. Member of the National Academies Committee on Building Adaptable and Resilient Supply Chains after Hurricanes Harvey, Irma, and Maria, August 2018 - August 2019.

Conference/cluster/session organization

1. Co-chair. Health and Humanitarian Logistics Conference, Kigali, Rwanda, July 2019.
2. Co-chair. The Sharing Economy: Research on Access, Technology, Equity and Applications, Boston, MA, March 2019.
3. Co-chair. Health and Humanitarian Logistics Conference, Dubai, United Arab Emirates, July 2018.
4. Co-chair. Health and Humanitarian Logistics Conference, Copenhagen, Denmark, July 2017.
5. Co-chair. Health and Humanitarian Logistics Conference, Atlanta, GA, August 2016.
6. Co-chair. Health and Humanitarian Logistics Conference, GIBS, South Africa, November 2015.
7. Co-chair. Health and Humanitarian Logistics Conference, Monterrey Tech, Mexico City, June 2014.
8. Co-chair. Health and Humanitarian Logistics Conference, Malaysia Institute of Supply Chain Innovation, Kuala Lampur, Malaysia, June 2013.
9. Co-chair. Health and Humanitarian Logistics Conference, KLU Logistics University, Hamburg, Germany, March 2012.
10. Co-chair. Health and Humanitarian Logistics Conference, Georgia Institute of Technology, Atlanta, GA, March 2011.

11. Co-chair. Sponsored cluster for Section on Public Programs, Service and Needs, INFORMS, San Antonio, TX, November 2010.

12. Member. Steering committee for the NSF Haiti RAPIDs and Research Needs Workshop, Washington DC., September 2010.

13. Co-chair. Health and Humanitarian Logistics Conference, Georgia Institute of Technology, Atlanta, GA, March 2010.

14. Co-organizer. Invited cluster on Humanitarian Relief and Disaster Preparedness, INFORMS, San Diego, CA, October 2009.

15. Co-chair. Humanitarian Logistics Conference, Georgia Institute of Technology, Atlanta, GA, February 2009.

16. Co-organizer. Invited cluster on Humanitarian Relief and Disaster Preparedness, INFORMS, Washington D.C., October 2008.

17. Organizer. Collaborative Logistics Workshop. Atlanta, GA, September 2007.

18. Member of the organizing committee and Chair for the sponsored sessions. INFORMS, Atlanta, GA, November 2003.

19. Cluster chair. Large Scale Optimization. EURO/INFORMS joint International Meeting, Istanbul, Turkey, July 2003.

20. Session chair/co-chair for various sessions in all INFORMS meetings since 2003.

Board memberships

1. Advisory Board member, Computational Science and Engineering Program, Institute for Applied Computational Science, Harvard University, 2011 - 2013.

VII. HONORS AND AWARDS

- Winner, 2021 INFORMS Franz Edelman Competition with "UN World Food Programme: Towards Zero Hunger with Analytics."

- Finalist, 2019 Manufacturing and Service Operations Management Society Responsible Research Award with "Efficient Implementation of Collective Extended Producer Responsibility."

- Winner, 2018 Northeastern University, College of Engineering, Excellence in Mentoring Award.

- Runner-up, The Production and Operations Management Society (POMS) College of Humanitarian Operations & Crisis Management best paper award 2013, with "Post-Disaster Debris Clearance with Incomplete Information."

- Honorable mention, 2012 INFORMS Section on Public Programs, Service and Needs best paper competition with " Fair and Efficient Implementation of Collective Extended Producer Responsibility Legislation."

- Winner, 2011 Senior Faculty Outstanding Undergraduate Research Mentor Award, Georgia Tech Faculty Honors.

- 3rd place, INFORM-ED 2010 Case Competition with "A Leader Home Improvement Retailer Commitment to Disaster Response."

- First runner-up, INFORM-ED 2009 Case Competition with "Waffle House Restaurants Hurricane Response: A Case Study."

- Winner, EURO/INFORMS 2007 Management Science Strategic Innovation Prize (12,000 Euros) given on the subject of Logistics in 2007 with "Designing mechanisms for the management of carrier alliances."

- Finalist, INFORMS 2007 Junior Faculty Interest Group Paper Competition with "Network design and allocation mechanisms for carrier alliances in liner shipping."

- Most Cited Paper Award, Signal Processing: Image Communication given to the most cited paper published between the years 2005-2007 with "A multi-path selection for multiple description video streaming over overlay networks."

- CAREER Award, National Science Foundation, 2003.

- UPS Fellowship, Center for Transportation Studies, MIT, 1998-99.

- International Student Scholarship, Cornell University, 1992-96.

Student Awards

- 2nd place, Weijia Jing and Keziban R. Tasci, 2019 INFORMS Doing Good with Good OR student paper competition with "Enhancing the effectiveness and efficiency of food aid supply chains: an economic optimization model for USAID Food For Peace Program's operations in Ethiopia."

- Aybike Ulusan, College of Engineering Outstanding Graduate Research Award, 2018, Northeastern University, Boston, MA

- Weijia Jing, John and Katharine Cipolla MS Merit Award, MIE, 2018, Northeastern University, Boston, MA.

- Finalist, M. Ayers, L. Gadepalli, A. Kachwala, T. Munir, C. Punma, G. Rodriguez, Y. Singh, 2014 INFORMS Doing Good with Good OR student paper competition with "Global Supply Chain Optimization at UN World Food Program."

- Winner, UN World Food Program senior design team, Spring 2014 ISyE Senior Design Competition with "Global Supply Chain Optimization."

- Isil Alev, Sam Nunn Security Program Fellow, Georgia Tech, 2014-2015.

- Jessica Heier Stamm, Bi- annual Best Doctoral Thesis in Humanitarian Logistics Award 2013, Humanitarian Logistics and Supply Chain Research Institute, Hanken School of Economics.

- Carl Dahl, Thomas T. Hoopes Prize, Harvard University 2013, with his senior thesis "Facility location problem in service networks with self-routing users."

- Isil Alev, The Production and Operations Management Society (POMS) College of Sustainable Operations Dissertation Proposal Award 2013, with her thesis proposal "Operational perspectives on extended producer responsibility for durable and consumable goods."

- Jiajin Yu, ARC Fellowship Georgia Tech Spring 2012, "Atomic Congestion Games with Taxes on Resources."

- L. Gui, Blanchard Graduate Scholarship Award 2012. Scholarship is awarded to an exemplary ISyE graduate student in sustainability to honor 2012 Blanchard Award recipient Ray Anderson.

- Jessica Heier Stamm, INFORMS Transportation Science and Logistics Society Dissertation Prize, 2011.

- Honorable mention, J. Wade, 2010 INFORMS undergraduate student paper competition with " Supply Chain Improvements for the World Food Programme."

- Second place, Rene Alvarenga, Dani Slaton and Jordan Stone, 2010 INFORMS Doing Good with Good OR student paper competition with "Increasing Food Delivery Through Port Simulation and Overland Transportation Route Optimization."

- Winner, J. Wade, 2010 Outstanding Undergraduate Researcher Georgia Tech College of Engineering with research on " Supply Chain Improvements for the World Food Programme."

- L. Gui, ARC Fellowship Georgia Tech Fall 2009, "Collaboration Mechanism Design under Data Uncertainty in Multicommodity Flow Networks."

- Runner-up, J. Wade, SAIC 2009 Georgia Tech Student Paper Competition with " Supply Chain Optimization for the World Food Programme."

- Kael Stilp, ARC Fellowship Georgia Tech Fall 2008, "Searching for the Core with Column Generation."

- Runner-up, R. Agarwal, INFORMS 2007 Computing Society Student Paper Competition with "Ship scheduling and network design for cargo routing in liner shipping."

- Honorable Mention, R. Agarwal, SAIC 2007 Georgia Tech Student Paper Competition with " Network design and allocation mechanisms for carrier alliances in liner shipping."

- Finalist, Honda senior design team, Fall 2009 ISyE Senior Design Competition with "Routing Dealers within the Alpharetta, GA Parts Distribution Network for American Honda Motor Company, Inc."

- Finalist, WFP senior design team, Fall 2008 ISyE Senior Design Competition with "Supply Chain Optimization for the World Food Programme."

- Finalist, NextWave senior design team, Spring 2008 ISyE Senior Design Competition with "Procuring Transportation In US Food Aid Auctions."

- Winner, Newell Rubbermaid senior design team, Spring 2006 ISyE Senior Design Competition with "Realignment of Supply Chain Logistics for Newell Rubbermaid."