

Özlem Ergun

Assistant Professor

School of Industrial & Systems Engineering

Georgia Institute of Technology, 765 Ferst Drive, Atlanta, GA 30332.

(404) 894-2369, oergun@isye.gatech.edu

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

- Assistant Professor, School of Industrial & Systems Engineering, *Georgia Institute of Technology*, Atlanta, GA, September 2001 - present
- Visiting fellow, *The Logistics Institute - Asia Pacific*, *National University of Singapore*, Singapore, November 2003 and November 2004
- Summer intern, *Logistic Information Systems*, Framingham, MA, June - August 1998

III. TEACHING

(A) Individual Student Guidance

Ph.D. students

1. Maciek Novak (with Dr. Chelsea White). Thesis title: The split pick-up and delivery problem. **Graduated May 2005**. Current position: Assistant Professor at Georgia Southern University. Publications co-authored: IV.B.11.
2. Gultekin Kuyzu (with Dr. Martin Savelsbergh). Thesis title: Procurement in truck-load transportation. **Graduated May 2007**. Current position: Supply Chain Solutions Consultant at Agility Logistics. Publications co-authored: IV.B.6,7,13,21.
3. 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. Publications co-authored: IV.A.2, IV.B.9.
4. Richa Agarwal. Thesis title: Network design and alliance formation for liner shipping. **Defended her thesis in May 2007 and will graduate from the Algorithms, Combinatorics and Optimization program in August 2007**. Publications co-authored: IV.A.4, IV.B.8,10,14,16,23.
5. Lori Houghtalen (with Dr. Joel Sokol). Thesis topic: Designing management mechanisms for carrier alliances. Passed the comprehensive exams in Manufacturing and Logistics in Fall 2004. **Scheduled to defend her thesis on June 27, 2007**.

Accepted an Assistant Professorship position at Babson College. Publications co-authored: IV.A.4, IV.B.17.

6. Fei Qian. Thesis topic: Stochastic scheduling models for time-shared jets. Started research in Fall 2003. Passed the Algorithms, Combinatorics and Optimization program comprehensive exams in Fall 2005.
7. Orsan Ozener. Thesis topic: Cost allocation in collaborative logistics networks. Started research in Fall 2003. Passed comprehensive exams in Manufacturing and Logistics in Spring 2005. Publications co-authored: IV.A.4, IV.B.12,22.
8. Doug Altner. Thesis topic: The network interdiction problem. Started research in Fall 2004. Passed the comprehensive exams in Optimization in Spring 2005. Publications co-authored: IV.C.2.
9. Ali Ekici (with Dr. Pinar Keskinocak). Thesis topic: Real world scheduling and routing problems. Started research in Summer 2006. Passed the comprehensive exams in Optimization in Spring 2005. Publications co-authored: IV.C.1.
10. Jessica Heier (with Dr. Julies Swann). Thesis topic: Optimization of decentralized logistics systems. Started research in Spring 2007. Passed the comprehensive exams in Manufacturing and Logistics in Spring 2007.

Masters thesis supervised

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 expected graduation December 2007.

Independent study with graduate students

1. Cheng-Huang Hung (with Drs. Ahmed and Sokol). Inverse shortest path length problem. Fall 2001. Publications co-authored: IV.B.15.
2. Demet Batur. Dynamic routing. Summer 2002.
3. Burak Karacik. Very large scale neighborhood search for the constrained TSP. Fall 2002.
4. Ozgun Caliskan Demirag (with Dr. Savelsbergh). Algorithms for a constrained cycle covering problem. Fall 2002 & Spring 2003.
5. Ali C. Begen (with Dr. Altunbasak). Multi-path selection algorithms for multiple description video streaming. Fall 2002 & Spring 2003. Publications co-authored: IV.B.2,18,19,20.
6. Gizem Keysan. Very large scale neighborhood search in dynamic routing. Fall 2003.
7. Mario Cesar Velez. Dynamic routing algorithms and augmentation networks. Spring 2004.

8. Nelson Uhan. Network interdiction problem. Visiting student from MIT Operations Research Center during Spring 2006. Publications co-authored: IV.C.2.
9. Kael Stulp. Cost allocation for network design games. Fall 2006 and Spring 2007.
10. Chien-Hung Chen. Local search in machine scheduling. Spring 2007.

Independent study with undergraduate students

1. Candis Head. Scheduling for ocean carriers. Fall 2005.
2. Nitza Arroya. Dynamic vehicle routing. Fall 2002.
3. Mike Holman. Efficient insertion algorithms for vehicle routing problems with time windows. Spring 2003.

(B) Curriculum development

1. *Heuristics for Optimization* (ISyE 8801), a Ph.D. level special topics course initially developed and offered in Spring 2003 and re-designed and offered in Fall 2006. The aim of the course was 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. The course was received enthusiastically by the students. (“The instructor was an effective teacher” scores were 4.7 for Spring 2003 and 5.0 for Fall 2006.)
2. *Graduate Seminar in Combinatorial Auctions* (ISyE 8900) (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.

IV. SCHOLARLY ACCOMPLISHMENTS

(A) Books and parts of books

Published

1. Ö. Ergun, E. Johnson, and K. Yao. (2006) An integrated model for on-demand air transportation planning. To appear 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. (Refereed)
2. 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. (Invited)

Submitted

3. E. Aarts, H. Eikelder, Ö. Ergun, J. Korst, and J.K. Lenstra. (2005) Heuristics based on neighborhood search. Submitted to J.K. Lenstra and D.B. Shmoys (eds.), *Approximation and Heuristics*, Handbooks in Operations Research and Management Science, Elsevier, Amsterdam. (Invited and refereed)

4. R. Agarwal, Ö Ergun, L. Houghtalen, and O. O. Ozener. Collaboration in Cargo Transportation. (2006) Submitted to A. Chaovalitwongse and F. Roberts (eds.), *Optimization and Logistics Challenges in the Enterprise*. Springer-Verlag. (Refereed)

(B) Refereed publications

Published papers in refereed journals

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. The shipper collaboration problem. *Computers and Operations Research, Odysseus 2003 Special Issue*. 34 (6), 1551-1560, 2007.
7. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. Reducing truckload transportation costs through collaboration. *Transportation Science*. 41, 206-221, 2007.
8. 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.
9. Y. Yao, Ö. Ergun, E. Johnson, W. Schultz, and J.M. Singleton. Strategic planning problems in fractional aircraft ownership programs. To appear in *European Journal of Operational Research*, 2007.
10. R. Agarwal and Ö. Ergun. Ship scheduling and network design for cargo routing in liner shipping. To appear in *Transportation Science*, 2007.
11. M. Novak, Ö Ergun, and C.C. White. Pick-up and delivery with split loads. To appear in *Transportation Science*, 2007.

Submitted papers to refereed journals

12. Ö. Özener and Ö Ergun. Allocating costs in a collaborative transportation procurement Network. Under second review at *Transportation Science*, October 2006.
13. C-H. Hung, S. Ahmed, Ö. Ergun, and J. Sokol. Solving the inverse shortest path length problem for bandwidth pricing. Submitted to *Computers and Operations Research*, November 2006.

14. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. Bid price optimization for simultaneous truckload transportation auctions. Submitted to *Transportation Science*, February 2007.
15. R. Agarwal and Ö. Ergun. Mechanism design for a multicommodity flow game in service network alliances. Submitted to *Operations Research Letters*, March 2007.
16. R. Agarwal and Ö. Ergun. Network design and allocation mechanisms for carrier alliances in liner shipping. Submitted to *Operations Research*, June 2007. (An earlier version of this paper received an Honorable Mention at the 2007 SAIC Georgia Tech Student Paper Competition.)
17. L. Houghtalen, Ö. Ergun, and J. Sokol. Designing mechanisms for the management of carrier alliances. Submitted to *Management Science*, June 2007. (This paper won the EURO/INFORMS 2007 Management Science Strategic Innovation Prize given on the subject of *Logistics* in 2007.)

Publications in refereed conference proceedings

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.
19. 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.
20. 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.
21. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. Collaborative Logistics: The Shipper Collaboration Problem. TRISTAN, Guadeloupe, June 2004.
22. O. Ö. Özener and Ö. Ergun. Collaborative Logistics: Cost allocation for the Shipper Collaboration Problem. Manufacturing and Service Operations Management, Atlanta, GA, June 2006.
23. R. Agarwal and Ö. Ergun. Designing Mechanisms for Sustainable Carrier Alliances in Transportation Networks. TRISTAN, Phuket, Thailand, June 2007.

(C) Other publications

Working papers

1. A. Ekici, Ö. Ergun, P. Keskinocak, M.G. Lagaoudakis. Optimizing job splitting on a multi-slot machine, 2007.
2. D. Altner, Ö. Ergun, and N. Uhan. A robust inner-dual flip neighborhood for the maximum flow network interdiction problem, 2007.

Other

1. Ö. Ergun. Tips for Embedding Operations Research into Transportation Management Software. *ORMS Today*, 34, December 1998.

(D) Presentations

Invited seminars

1. Strategic Planning in Fractional Aircraft Ownership Programs, to be presented at the Operations Management Seminar Series, Sloan School of Management, MIT, Cambridge, MA, December 2006.
2. 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.
3. Collaborative Logistics, presented at the Operations Research Center Seminar Series, MIT, Cambridge, MA, February 2004.
4. Collaborative Logistics, presented at the National University of Singapore, November 2003.
5. Collaborative Logistics, presented at the Department of Industrial Engineering, Kasetsart University, Bangkok, Thailand, November 2003.
6. Very Large Scale Neighborhood Search for Solving Sequencing Problems. Local Search Society Lecture Series, City University, London, UK, February 2001.

Conference presentations (invited or sponsored sessions)

1. G. Kuyzu, Ö. Ergun, and M. Savelsbergh. Bidding Algorithms for Simultaneous Transportation Procurement Auctions. ROUTE 2007, Jekyll Island, GA, May 2007.
2. D. Altner, Ö. Ergun, and N. Uhan. Local Search in Maximum Flow Network Interdiction. INFORMS, Pittsburgh PA, November 2006.
3. R. Agarwal and Ö. Ergun. Mechanism Design for Sustainable Alliances Among Sea Carriers. INFORMS, Pittsburgh, PA, November 2006.
4. L. Houghtalen, Ö. Ergun, and J. Sokol. Designing Membership and Allocation Mechanisms for Air Cargo Alliances. INFORMS, Pittsburgh, PA, November 2006.
5. Y. Yao and Ö. Ergun, and E. Johnson. Scheduling And Decision Support in The Time-Share Air Transportation. INFORMS, Pittsburgh, PA, November 2006.
6. O. Ö. Özener and Ö. Ergun. Allocating Costs of a Collaboration in Transportation Procurement in a Multi Carrier Environment. INFORMS, Pittsburgh, PA, November 2006.
7. G. Kuyzu, Ö. Ergun, and M. Savelsbergh. Bidding Algorithms for Simultaneous Transportation Procurement Auctions. INFORMS, Pittsburgh, PA, November 2006.
8. D. Altner, Ö. Ergun, and N. Uhan. Local Search in Maximum Flow Network Interdiction. International Symposium on Mathematical Programming, Rio De Janeiro, August 2006.
9. R. Agarwal and Ö. Ergun. Mechanism Design for Sustainable Alliances Among Sea Carriers. INFORMS, Pittsburgh, PA, November 2006.
10. D. Altner, Ö. Ergun, and N. Uhan. Local Search in Maximum Flow Network Interdiction. INFORMS, Pittsburgh PA, November 2006.

11. L. Houghtalen, Ö. Ergun, and J. Sokol. Designing Membership and Allocation Mechanisms for Air Cargo Alliances. INFORMS, Pittsburgh, PA, November 2006.
12. Y. Yao and Ö. Ergun, and E. Johnson. Scheduling And Decision Support in The Time-Share Air Transportation. INFORMS, Pittsburgh, PA, November 2006.
13. O. Ö. Özener and Ö. Ergun. Allocating Costs of a Collaboration in Transportation Procurement in a Multi Carrier Environment. INFORMS, Pittsburgh, PA, November 2006.
14. G. Kuyzu, Ö. Ergun, and M. Savelsbergh. Bidding Algorithms for Simultaneous Transportation. INFORMS, Pittsburgh, PA, November 2006. Procurement
15. R. Agarwal and Ö. Ergun. Optimization Problems and Computational Challenges in Ship Scheduling and Containerized Cargo Routing. DIMACS and ExxonMobil Workshop on Computational Optimization and Logistics Challenges in the Enterprise, Annandale, NJ, April 2006.
16. Ö. Ergun. Do's and Do not's of NSF Grant Proposals. INFORMS, San Francisco, CA, November 2005.
17. Fei Qian and Ö. Ergun. A Network Design Game with Fixed and Variable Edge Costs. INFORMS, San Francisco, CA, November 2005.
18. M. Novak, Ö. Ergun, and C.C. White. Pick-up and Delivery with Split Loads. INFORMS, San Francisco, CA, November 2005.
19. L. Houghtalen, Ö. Ergun and J. Sokol. Collaborative Logistics in the Air Cargo Industry. INFORMS, San Francisco, CA, November 2005.
20. Y. Yao, Ö. Ergun, and E. Johnson. An Integrated Scheduling Model in Fractional Airlines Operations. INFORMS, San Francisco, CA, November 2005.
21. G. Kuyzu, Ö. Ergun, and M. Savelsbergh. Transportation Procurement Based on Auctions. INFORMS, San Francisco, CA, November 2005.
22. Ö. Özener and Ö. Ergun. Cost Allocation Mechanisms for a Shippers' Collaboration Network. INFORMS, San Francisco, CA, November 2005.
23. R. Agarwal and Ö. Ergun. Ship Routing and Network design for the Sea Cargo Industry. INFORMS, San Francisco, CA, November 2005.
24. Ö. Ergun, J.B. Orlin, and A. Steele-Feldman. Creating Very Large Scale Neighborhoods out of Smaller Ones by Compounding Moves: A Case Study on the Vehicle Routing Problem. INFORMS Computing Society Conference, Annapolis, MD, January 2005.
25. Y. Yao, Ö. Ergun, and E. Johnson. A Scheduling Problem in Fractional Ownership Airlines. INFORMS, Denver, CO, October 2004.
26. Ö. Ergun, M. Novak, and C. White. Pickup and Delivery Problem with Split Loads. INFORMS, Denver, CO, October 2004.
27. R. Agarwal and Ö. Ergun. Collaborative Logistics in Sea Cargo Industry. INFORMS, Denver, CO, October 2004.
28. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. Collaborative Logistics: The Shipper Collaboration Problem. INFORMS, Denver, CO, October 2004.

29. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. Collaborative Logistics: The Shipper Collaboration Problem. INFORMS, Atlanta, GA, October 2003.
30. R. Agarwal, Ö. Ergun, J.B. Orlin, and C.N. Potts. Solving Scheduling Problems with Very Large Scale Neighborhood Search. INFORMS, Atlanta, GA, October 2003.
31. S. Ahmed, Ö. Ergun, C.H. Hung, and J. Sokol. Solving the Inverse Shortest Path Length Problem. INFORMS, Atlanta, GA, October 2003.
32. R. Agarwal, Ö. Ergun, J.B. Orlin, and C.N. Potts. Improvement Graphs in Large-Scale Neighborhood Search: A Case Study on Scheduling. EURO - INFORMS Joint International Meeting, Istanbul, Turkey, July 2003.
33. Ö. Ergun, G. Kuyzu, and M. Savelsbergh. Collaborative Logistics: The Shipper Collaboration Problem. Odysseus, Second International Workshop on Freight Transportation and Logistics, Palermo, Sicily, Italy, May 2003.
34. Ö. Ergun and J.B. Orlin. Very Large Scale Neighborhoods Induced from Dynamic Programs. INFORMS, San Jose, CA, November 2002.
35. Ö. Ergun, and J.B. Orlin. Large Scale Neighborhood Search for Routing and Scheduling. IFORS, Edinburgh, Scotland, July 2002.
36. Ö. Ergun, and J.B. Orlin. A Large Scale Neighborhood Search Approach for Solving Routing and Scheduling Problems, presented at The Local Search Workshop, London, UK, April 2002.
37. Ö. Ergun, J.B. Orlin, and A. Steele-Feldman. Very Large-Scale Neighborhood Search Heuristic for the VRP with Capacity and Distance Restrictions. INFORMS, Miami, FL, November 2001.
38. Ö. Ergun, and J.B. Orlin. Very Large Scale Neighborhood Search Using DP State Space Reductions. INFORMS meeting, San Antonio, TX, November 2000.
39. Ö. Ergun, and J.B. Orlin. New Polynomial Time Methods for Searching Exponentially Large Neighborhoods for Combinatorial Optimization Problems. International Symposium on Mathematical Programming, Atlanta, GA, August 2000.
40. R.K. Ahuja, Ö. Ergun, and J.B. Orlin. Very Large Scale Neighborhood Search Algorithms for Set Partitioning Problems. INFORMS, Philadelphia, PA, November 1999.
41. Ö. Ergun, R.M. Freund, and J.B. Orlin. Inverse Optimization. INFORMS, Seattle, WA, October 1998.

(E) Patent applications and invention disclosures

1. A.C. Begen, Y. Altunbasak, and Ö Ergun. Multimedia transport protocol: Optimal multi-path selection for multiple description encoded streaming. Filed in the USPTO (GTRC ID: 2739), August 2002.

V. SERVICE

(A) Professional contributions

Service in professional organizations

1. 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.
2. Junior VP-Communications. INFORMS Forum for Women in OR/MS (WORMS), since Spring 2007.

Conference/cluster/session organization

1. Member of the organizing committee and Chair for the sponsored sessions. INFORMS, Atlanta, GA, November 2003.
2. Cluster chair. Large Scale Optimization. EURO/INFORMS joint International Meeting, Istanbul, Turkey, July 2003.
3. Session chair/co-chair for various sessions in all INFORMS meetings since 2003.

Referee for technical journals and conferences

1. Annals of Operations Research
2. Central European Journal of Operational Research
3. Discrete Applied Mathematics
4. Discrete Optimization
5. IEEE INFOCOM
6. IIE Transactions
7. INFORMS Journal on Computing
8. Journal of Heuristics
9. Journal of Scheduling
10. Management Science
11. Manufacturing and Service Operations Management
12. Naval Research Logistics
13. Networks
14. Journal of the Operational Research Society
15. Operations Research
16. Operations Research Letters
17. Transportation Science

Reviewer for funding organizations

1. National Science Foundation, Operations Research and Service Enterprise Engineering Programs, April 2003.

Memberships

1. Member, INFORMS, 1997 - present.

2. Member, Mathematical Programming Society, 2000 - present.

(B) **Campus contributions**

Departmental activities

1. Co-founder and co-director, Humanitarian Logistics Research Center at the Supply Chain and Logistics Institute, Georgia Tech, Spring 2007-present.
2. Chair, ISyE Graduate Committee, Fall 2006-present.
3. Member, ISyE Graduate Committee, Fall 2005-present.
4. Developed and organized ISyE Logistics and Supply Chain Seminar series, Spring 2005.
5. Organized and ran Collaborative Logistics group meetings and seminars, 2004-2005.
6. Member, ISyE Ph.D. comprehensive examination committee in Algorithms, Combinatorics, and Optimization (joint program with CoC and Math), 2004.
7. Member, ISyE Ph.D. comprehensive examination committee in Manufacturing and Logistics, 2002-2003.
8. Coordinator, MIT Operations Research Center seminar series, Fall 1998.
9. Vice-president, MIT INFORMS student chapter, 1997 - 1998.

Doctoral thesis committees

1. Ahmet Keha (ISyE), 2003.
2. Cheng-Huang Hung (ISyE), 2003.
3. Kai Huang (ISyE), 2004.
4. Wuthichai Wongthatsanekorn (ISyE), 2005.
5. Brian Lewis (ISyE), 2005.
6. Maciek Novak (ISyE), 2005.
7. Ali C. Begen (ECE), 2006.
8. Gutekin Kuyzu (ISyE), 2006.
9. Burak Karacik (ISyE), 2006.
10. Ozgun Caliskan Demirag (ISyE), 2007.
11. Amandeep Parmar (ISyE), 2007.
12. Lori Houghtalen (ISyE), 2007.
13. Richa Agarwal (ISyE), 2007.
14. Kathe Yao (ISyE), 2007.
15. Steve Morris (ISyE), 2007.

VI. GRANTS AND CONTRACTS

(A) **As principal or co-principal investigator**

Ongoing

1. Citation Shares (\$40,000 per year since 2002). Scheduling for Time-Shared Jets. PI: Dr. E. Johnson, co-PI: Ö. Ergun.

2. NSF CAREER (DMI-0238815, \$400,000 for 2003-2008). Efficient Network Design and Routing Algorithms for Logistics and Communications Networks. PI: Ö. Ergun, awarded February 2003.
3. NSF ITR (DMI-0427446, \$1,100,000 for 2004-2007). (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.
4. USDOT/FHWA award to Transportation Research Center at Georgia Tech (\$30,000 subcontracted amount to Ö. Ergun for 2007-2008). Managing Transportation Networks with Selfish Agents. PI: Ö. Ergun, awarded, expected in June 2007.

Completed

5. 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.

Pending

6. NSF (DMI, \$335,612 for 2007-2010). Designing and Managing Logistics Networks with Decentralized Agents. PI: Ö. Ergun, co-PI: Dr. J. Swann, submitted February 2007.
7. Georgia Tech (\$30,000 for 2007-2008). Focused Research Program in Disaster Relief. PI: Dr. J. Swann, co-PI's: Drs. A. Amekudzi, M. Castillo, Ö. Ergun, S. French, P. Keskinocak, E. Whitaker, submitted May 2007.

Other

8. DARPA white paper for RFI SN07-28 (precursor to potential funding). New Methods for Local Optimization of Logistics Networks with Decentralized Agents. O. Ergun, P. Keskinocak, and J. Swann (main contact), submitted April 2007, invited for workshop participation for June 20 - 22, 2007.

VII. HONORS AND AWARDS

- Winner, EURO/INFORMS 2007 Management Science Strategic Innovation Prize given on the subject of *Logistics* in 2007 with “Designing mechanisms for the management of carrier alliances.”
- Student R. Agarwal received an Honorable Mention at the 2007 SAIC Georgia Tech Student Paper Competition with “Network design and allocation mechanisms for carrier alliances in liner shipping.”
- CAREER Award, National Science Foundation, 2003.
- UPS Fellowship, Center for Transportation Studies, MIT, 1998-99.
- International Student Scholarship, Cornell University, 1992-96.