

Jeffrey T. Linderoth

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Education

GEORGIA INSTITUTE OF TECHNOLOGY, SCHOOL OF ISYE, ATLANTA, GA.
Ph.D. in Industrial Engineering, 1998.
Program Concentrations: Optimization, Computer Science.
Thesis: *Topics in Parallel Integer Optimization*. Advisor: Martin Savelsbergh.

GEORGIA INSTITUTE OF TECHNOLOGY, SCHOOL OF ISYE, ATLANTA, GA.
M.S. in Operations Research, 1994.

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, DEPARTMENT OF GENERAL ENGINEERING.
B.S. (with highest honors), 1992.

Employment

LEHIGH UNIVERSITY Assistant Professor of Industrial and Systems Engineering	Bethlehem, PA 2002 - PRESENT
AXIOMA, INC. Senior Consultant	Marietta, GA 2000-2002
ARGONNE NATIONAL LAB Enrico Fermi Scholar Postdoctoral Research Assistant, Mathematics and Computer Science Division	Argonne, IL 1999-2000 1998-1999
GEORGIA INSTITUTE OF TECHNOLOGY Graduate Research Assistant, School of Industrial and Systems Engineering Graduate Teaching Assistant, School of Industrial and Systems Engineering	Atlanta, GA 1993-1998 1992-1993
UNITED STATES GEOLOGICAL SURVEY Research Assistant	Urbana, IL 1991-1992
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN Undergraduate Research Assistant	Urbana, IL 1990-1992

Refereed Book Chapters

J. T. Linderoth and S. J. Wright, "Computational Grids for Stochastic Programming," S. Wallace and W. Ziemba (eds). *Applications of Stochastic Programming*, SIAM Mathematical Series on Optimization, 61-77, 2005.

J. T. Linderoth and T. K. Ralphs, "Noncommercial Software for Mixed-Integer Linear Programming," J. Karlof (ed). *Integer Programming: Theory and Practice*, CRC Press Operations Research Series, 253-303, 2005.

W. Glankwamdee and J. T. Linderoth, "MW: A Software Framework for Combinatorial Optimization on Computational Grids," E. Talbi, (ed). *Parallel Combinatorial Optimization*, John Wiley & Sons, forthcoming, 2006.

- Refereed Journal Articles** J. T. Linderoth and M. W. P. Savelsbergh, "A Computational Study of Branch and Bound Search Strategies for Mixed Integer Programming," *INFORMS Journal on Computing*, 11:173-187, 1999.
- A. Atamtürk, E. L. Johnson, J. T. Linderoth and M. W. P. Savelsbergh, "A Relational Modeling System for Linear and Integer Programming," *Operations Research*, 48:846-857, 2000.
- Q. Chen, M. Ferris, and J. T. Linderoth, "FATCOP 2.0: Advanced Features in an Opportunistic Mixed Integer Programming Solver," *Annals of Operations Research*, 103:17-32, 2001.
- J.-P. Goux, S. Kulkarni, J. T. Linderoth, and M. E. Yoder, "Master-Worker: An Enabling Framework for Applications on the Computational Grid", *Cluster Computing*, 4:63-70, 2001.
- J. T. Linderoth, E. K. Lee, and M. W. P. Savelsbergh, "A Parallel, Linear Programming Based Heuristic for Large Scale Set Partitioning Problems," *INFORMS Journal on Computing*, 13:191-209, 2001.
- P. Bauer, J. T. Linderoth, and M. W. P. Savelsbergh, "A Branch and Cut Approach to the Cardinality Constrained Circuit Problem," *Mathematical Programming*, 9:307-348, 2002.
- K. Anstreicher, N. Brixius, J.-P. Goux and J. T. Linderoth, "Solving Large Quadratic Assignment Problems on Computational Grids", *Mathematical Programming, Series B*, 91:563-588, 2002.
- J. T. Linderoth and S. J. Wright, "Implementing a Decomposition Algorithm for Stochastic Programming on a Computational Grid," *Computational Optimization and Applications*, special issue on Stochastic Programming, 24:207-250, 2003.
- J. T. Linderoth and S. J. Wright, "2003 COAP Best Paper Award," *Computational Optimization and Applications*, 29:123-126, 2004.
- J. T. Linderoth, "A Simplicial Branch-and-Bound Algorithm for Solving Quadratically Constrained Quadratic Programs," *Mathematical Programming, Series B*, 103:251-282, 2005.
- J. T. Linderoth, A. Shapiro, and S. J. Wright, "The Empirical Behavior of Sampling Methods for Stochastic Programming", *Annals of Operations Research*, 142:219-245, 2006.
- Refereed Conference Proceedings** J.-P Goux, S. Kulkarni, J. T. Linderoth, and M. E. Yoder, "An Enabling Framework for Master-Worker Applications on the Computational Grid", *Proceedings of the Ninth IEEE International Symposium on High Performance Distributed Computing*, 2000.
- Technical Reports** J. T. Linderoth and S. A. Burns, "Performance of Simulated Annealing as a Circuit Placement Optimization Method," UIUC Department of General Engineering Report 91-04, UIL U-ENG-91-3206, 1991.
- J.-P Goux, J. T. Linderoth, and M. E. Yoder, "Metacomputing and the Master-Worker Paradigm," Preprint ANL/MCS-P792-0200, Mathematics and Computer Science Division, Argonne National Laboratory, 2000.
- M. Freimer, D. Thomas and J. T. Linderoth, "Reducing Bias in Stochastic Linear Programming with Sampling Methods," Lehigh University Department of Industrial and Systems Engineering Technical Report 05T-002, 2005.
- U. Janjarassuk and J. T. Linderoth, "Reformulation and Sampling to Solve a Stochastic Network Interdiction Problem," Lehigh University Department of Industrial and Systems Engineering Technical Report 06T-001, 2006.

**Other
Publications
(Unrefereed)**

L. Clarke, J. T. Linderoth, E. L. Johnson, G. L. Nemhauser, R. Bhagavan, and M. Jordan, "Using OSL to Improve the Computational Results of a MIP Logistics Model", EKKNEWS, 16, 1995.

P. Bauer, J. T. Linderoth, and M. W. P. Savelsbergh, "Facets of the Cardinality Constrained Circuit Polytope", published at *Optimization Online*: http://www.optimization-online.org/DB_HTML/2001/07/356.html, 2001.

**Working
Papers**

B. Gemici, J. T. Linderoth S. D. Wu, and J. Moore, "R&D Project Portfolio Analysis for the Semiconductor Industry," Working Paper, Lehigh University.

J. T. Linderoth and J. Shen, "Solving Multistage Stochastic Programs on the Computational Grid", Working Paper, Lehigh University.

W. Glankwamdee and J. T. Linderoth, "Look-ahead Branching for Mixed Integer Programming", Working Paper, Lehigh University.

C. Novoa, R. Berger, J. T. Linderoth, and R. Storer, "A Set-Partitioning-Based Model and Solution Procedures for the Stochastic Vehicle Routing Problem," Working Paper, Lehigh University.

K. Abhishek, S. Leyffer and J. T. Linderoth, "FilMINT: An Outer Approximation based Nonlinear Mixed Integer Solver," Working Paper, Lehigh University.

**Honors and
Awards**

Department of Energy Early Career Principal Investigator Award: Applied Mathematics, Computer Science, and High-Performance Networks, 2005-2007

Lehigh Engineering Ingenuity Award for Exceptional Accomplishment in Teaching and/or Research by a Junior Faculty Member, 2005

IBM Faculty Partnership Award, 2005-2006

Keynote Speaker, High Performance Algorithms and Software for Nonlinear Optimization, Ischia, Italy, 2004

Best Paper Award, with S. J. Wright, 2003.

"Decomposition Algorithms for Stochastic Programming on a Computational Grid" was judged as the top paper published in *Computational Optimization and Applications* in 2003.

SIAM Activity Group on Optimization Prize, with K. Anstreicher, N. Brixius, and J.-P Goux, 2002
The SIAM Activity Group on Optimization (SIAG/OPT) Prize, established in 1992, is awarded to the author(s) of the most outstanding paper, as determined by the prize committee, on a topic in optimization published in English in a peer-reviewed journal. Prize is awarded every three years.

Enrico Fermi Scholar, Argonne National Lab, 1999-2000.

Recognition of Outstanding Paper, *Ninth IEEE International Symposium on High Performance Distributed Computing*, 2000.

Presidential Fellowship, Georgia Tech, 1992-1996.

Saluditorian, University of Illinois, Dept. of General Engineering, 1992.

Tau Beta Pi, Illinois Alpha. Secretary, 1991. Treasurer, 1992.

National Science Foundation, Research Experience for Undergraduates, 1990-1992.

**Research
Funding**

"Optimization Under Nonconvexity and Uncertainty: Algorithms and Software," DEPARTMENT OF ENERGY, (DE-FG02-05ER25694), Principal Investigator, \$230,637, 8/05—8/08.

"Advanced Computational Techniques for Optimization," SAS INSTITUTE, INC., Co-Principal Investigator, \$105,000, 8/05—8/06, with T. Ralphs, Lehigh University.

“Exploiting Cyberinfrastructure to Solve Real-Time Integer Programs,” NATIONAL SCIENCE FOUNDATION (DMI-0522796), Principal Investigator, \$249,161 (Lehigh portion), 9/05—9/08, with T. Ralphs, Lehigh University, S. Ahmed, G. Nemhauser, and M. Savelsbergh, Georgia Institute of Technology, and A. Miller and M. Ferris, University of Wisconsin-Madison.

“Computational Models and Algorithms for Enterprise-wide Optimization of Process Industries,” PENNSYLVANIA INFRASTRUCTURE TECHNOLOGY ALLIANCE (PITA), Principal Investigator, \$78,588 (Lehigh portion), 4/05—4/06, joint with I. Grossmann, L. Biegler, J. Hooker, Carnegie-Mellon University, and A. Schaefer, University of Pittsburgh.

“Unrestricted Research Grant,” AIR PRODUCTS & CHEMICALS, Principal Investigator, \$27,500, 7/05—7/06.

“Take or Pay Valuation,” AIR PRODUCTS & CHEMICALS and THE BOC GROUP, Principal Investigator, \$22,500, 3/05—3/06.

“MW: Master-Worker Middleware for Grids,” NATIONAL SCIENCE FOUNDATION (OCI-0330607), Principal Investigator, \$209,700 (Lehigh portion), 9/03—9/06, with S. Wright and M. Livny, University of Wisconsin-Madison.

“Enterprise-Wide Optimization,” AIR PRODUCTS & CHEMICALS and PENNSYLVANIA INFRASTRUCTURE TECHNOLOGY ALLIANCE (PITA), Co-Principal Investigator, \$50,000, 1/03—1/04, with R. Berger, E. Perevalov, T. Ralphs, and A. Ross, Lehigh University.

“A GAMS Interface to IPOPT for Large-Scale Nonlinear Programming,” AIR PRODUCTS & CHEMICALS and PENNSYLVANIA INFRASTRUCTURE TECHNOLOGY ALLIANCE (PITA), \$1100, 6/04—9/04, with L. Biegler, Carnegie Mellon University.

Equipment Grants

“Numerical Optimization on a Computational Grid,” ALLIANCE ALLOCATIONS BOARD, (DDM050005), Principal Investigator, 50,000 CPU Hours, (3/05).

“Numerical Optimization on the TeraGrid,” PARTNERSHIPS FOR ADVANCED COMPUTATIONAL INFRASTRUCTURE (PACI) (TG-DDM040003), Principal Investigator, 30,000 CPU Hours, (2/04).

“High Performance Computing for Numerical Optimization,” PARTNERSHIPS FOR ADVANCED COMPUTATIONAL INFRASTRUCTURE (PACI) (DDM040004), Principal Investigator, 11,000 CPU Hours (1/04).

“Grid Computing for Optimization,” NATIONAL RESOURCE ALLOCATIONS COMMITTEE (NRAC) (MCA00N015N), Collaborator, 310,000 CPU Hours, (3/00), with M. Ferris, University of Wisconsin-Madison.

Editor and Review

Associate Editor, *INFORMS Journal on Computing*, 2003-present.

Guest Editor, *Parallel Computing*, special issue on “Optimization on Grids—Optimization for Grids”, 2006.

Area Coordinator—Integer Programming, *Optimization Online*, 2000-present.

Area Coordinator—Applications, OR, and Management Science, *Optimization Online*, 2000-present.

Area Coordinator—Stochastic Programming, *Optimization Online*, 2003-present.

Area Coordinator—Robust Optimization, *Optimization Online*, 2003-present.

Refereed publications for the following journals:

SIAM Journal on Optimization,
Mathematical Programming,
Operations Research,

Management Science,
Operations Research Letters,
INFORMS Journal on Computing,
Computational Optimization and Applications,
Discrete Applied Mathematics,
Journal of Global Optimization,
Annals of Operations Research,
European Journal of Operational Research,
IEEE Transactions on Parallel and Distributed Systems,
Parallel Computing,
International Journal of Systems Science,
Constraints

**Invited
Presentations**

“Using a Computational Grid for Optimization”

Fifth Annual Columbia Optimization Day, New York, December 2005

“Mixed Integer Nonlinear Programming”

TUTORIAL, with S. Leyffer, INFORMS Annual Meeting, San Francisco, November 2005

“Reformulation and Sampling to Solve a Stochastic Network Interdiction Problem”

INFORMS Annual Meeting, San Francisco, November 2005

“Branch-and-Bound on a Computational Grid”

SEMI-PLENARY, Research Center on Software Technology (RCOST), Mini-workshop on Computational Grids, Benevento, Italy, October 2005.

“Optimization on the Computational Grid”

SAS Institute, Inc. Cary, NC, August, 2005.

Operations Research Colloquium, Penn State University, State College, PA, February 2005.

INVITED PANELIST, Optimization and Cyberinfrastructure Panel Discussion, First International Conference on Continuous Optimization, Troy, NY, August 2004.

IBM TJ Watson Research Center Operations Research Seminar, Yorktown Heights, November 2003.

Carnegie Mellon GSIA Operations Research Seminar, Pittsburgh, March 2003.

INFORMS National Meeting, San Jose, November 2002.

“A Branch-and-Bound Method for Nonconvex Quadratic Programming Implemented on a Computational Grid”

2005 International Conference on Complementarity, Duality, and Global Optimization, Blacksburg, Virginia, August, 2005.

PLENARY, High-Performance Algorithms and Software for Nonlinear Optimization, Ischia, Italy, June 2004.

“A Survey of Cyberinfrastructure in Operations Research”

TUTORIAL, International Federation of Operations Research Societies Triennial Conference, Honolulu, July 2005.

Multi-Disciplinary Workshop at the Interface of Cyberinfrastructure and Operations Research, with Enterprise-wide Applications, National Science Foundation, Washington DC, August 2004.

- “Applying Integer Programming Techniques to Global Optimization Problems”
SIAM Conference on Optimization, Stockholm, May 2005.
INFORMS National Meeting, Atlanta, October 2003.
- “Multistage Stochastic Programming on a Computational Grid”
Stevens Institute of Technology, Department of Mathematical Sciences Optimization of Stochastic Systems Seminar, April 2005.
Northwestern University, Department of Industrial Engineering and Management Science Seminar Series, Evanston, January 2005.
The Tenth International Conference on Stochastic Programming, Tucson, October 2004.
INFORMS National Meeting, Denver, October 2004.
- “MW: The Master Worker Library”
Paradyn/Condor Week, Madison, WI, March, 2005.
- “MW: A Master-Worker Toolkit for Implementing Operations Research Algorithms on the Computational Grid”
Fourth International Workshop of the EURO Working Group on Parallel Processing in Operations Research, Mont-Tremblant, Canada, January, 2005.
- “An Empirical Comparison of Branching Rules and Heuristic Methods in MINTO”
INFORMS Computing Society (ICS) Conference, Annapolis, January 2005.
- “Building and Solving Stochastic Programs”
Workshop on Domain-Specific Languages for Numerical Optimization, Argonne National Lab, August, 2004.
- “MW: Master-Worker Middleware for Grids”
Eleventh SIAM Conference on Parallel Processing for Scientific Computing, San Francisco, February, 2004.
NSF Shared Cyberinfrastructure (SCI) Division, Principal Investigators Meeting, Washington DC, February, 2004.
- “Solving Multistage Stochastic Linear Programs on the Computational Grid”
INFORMS National Meeting, Atlanta, October 2003.
- “Nonconvex Quadratic Programs and the Computational Grid”
Lehigh Chemical Process Modeling and Control Seminar Series, Bethlehem, PA, April, 2004.
Argonne Global Optimization Theory Institute, Argonne, September 2003.
18th International Mathematical Programming Symposium, Copenhagen, August 2003.
- “Parallel Computing for Branch-and-{Bound,Cut}”
CORC Discussions on Mixed Integer Programming, New York, June 2003.
- “Solving Large Quadratic Assignment Problems on Computational Grids”
SIAM ACTIVITY GROUP ON OPTIMIZATION PRIZE LECTURE, 2002 SIAM Conference on Optimization, Toronto, July 2002.
- “Optimization Over the Internet.”
Lehigh University, February 2002.

- Georgia Institute of Technology, ISyE Seminar Series, Atlanta, December 2001.
University of North Carolina Operations Research Colloquium, Chapel Hill, February 2001.
INFORMS Roundtable Winter Meeting, Savannah, January 2001.
- “Using Personal Condor to Solve Large Scale Numerical Optimization Problems.”
Paradyn/Condor Week, Madison, March 2001.
- “Sampling-Based Methods for Stochastic Programming on Metacomputers.”
University of British Columbia, Vancouver, January 2001.
- “Decomposition Algorithms for Stochastic Programming on the Computational Grid.”
University of British Columbia, Vancouver, January 2001
APMOD – Applied Mathematical Programming and Modelling, London, April 2000
INFORMS National Meeting, Philadelphia, November 1999.
- “Metacomputing for Stochastic Optimization”
17th International Mathematical Programming Symposium, Atlanta, August, 2000
- “Stochastic Programming and Nondifferentiable Optimization Convergence Theory”
Stochastic Programming Day, Northwestern University, June 2000
- “Metacomputing and Optimization”
INFORMS National Meeting, Salt Lake City, May 2000.
ILOG, Mountain View, CA, May, 2000.
University of Chicago, Graduate School of Business, April 2000
INFORMS Chicago Local Chapter Meeting, March 2000
SUNY-Buffalo, Praxair OR Colloquium, February 2000
Sabre Decision technologies, Dallas, January 2000
- “Integer Programming and Metacomputing”
INFORMS National Meeting, Salt Lake City, May 2000.
- “Solving HUGE QAPs with Condor”
Paradyn/Condor Week, Madison, March 2000.
- “Computational Integer Programming for Dummies.”
Optimization for Dummies Seminar, Argonne National Laboratory, June 1999.
- “PARINO: A Parallel Branch & Cut Code”
INFORMS National Meeting, Cincinnati, May 1999.
- “Issues in Parallel Branch and Price”
DIMACS/RUTCOR: Discrete Optimization '99, New Brunswick, NJ, July 1999
INFORMS National Meeting, Cincinnati, May 1999.
- “MWLShaped: A High-Throughput Code for Two-Stage Stochastic Linear Programs”
metaNEOS/Condor Workshop, Argonne, June, 1999.
metaNEOS/Condor Workshop, Madison, February, 1999.

- “MW: An Enabling Framework for Master-Worker Applications on the Computational Grid”
Ninth IEEE Symposium on High Performance and Distributed Computing, Pittsburgh, August 2000.
Mathematics and Computer Science Division, Argonne National Laboratory, April, 1999.
- “Topics in Parallel Integer Optimization”
University of Southern California, Department of Industrial and Systems Engineering, Los Angeles, February 1998
Mathematics and Computer Science Division, Argonne National Laboratory, April 1998.
- “A Parallel Solution Approach to the Set Partitioning Problem,”
Optimization Technology Center Seminar, Northwestern University, January, 1999.
INFORMS National Meeting, Montreal, April 1998.
- “The Cardinality Constrained Circuit Problem.”
16th International Mathematical Programming Symposium, Lausanne, Switzerland, 1997.
- “Integrated Production and Distribution of Industrial Gases.”
INFORMS National Meeting, New Orleans, 1995.
- “Experiences with OSLp on the IBM SP2.”
Second OSL Network Group Conference, New Orleans, 1995.

**Courses
Taught**

- IE426—OPTIMIZATION MODELS AND APPLICATIONS Fall, 2005. (Enrollment: 18)
Student teacher evaluations (scale of 5.0)
Teaching Effectiveness: 4.5
Course Quality: 4.5
Instructor Knowledge: 4.9
Instructor Enthusiasm: 4.6
- IE418—INTEGER PROGRAMMING Spring, 2005. (Enrollment: 13)
Student teacher evaluations (scale of 5.0)
Teaching Effectiveness: 4.4
Course Quality: 4.2
Instructor Knowledge: 4.8
Instructor Enthusiasm: 4.2
- ENG5—INTRODUCTION TO ENGINEERING PRACTICE Fall 2004. (Enrollment: 24)
- ISE185—ISELP HONORS SEMINAR Fall 2004. (Enrollment: 8)
- IE418—INTEGER PROGRAMMING Fall, 2003. (Enrollment: 12)
Student teacher evaluations (scale of 5.0)
Teaching Effectiveness: 4.9
Course Quality: 4.7
Instructor Knowledge: 4.9
Instructor Enthusiasm: 4.9
- IE316—OPTIMIZATION MODELS AND APPLICATIONS Fall, 2003 (Enrollment: 49)
Student teacher evaluations (scale of 5.0)
Teaching Effectiveness: 4.4

Course Quality: 4.3
Instructor Knowledge: 4.9
Instructor Enthusiasm: 4.8

IE495—STOCHASTIC PROGRAMMING Spring, 2003 (Enrollment: 16)
Student teacher evaluations (scale of 5.0)
Teaching Effectiveness: 4.8
Course Quality: 4.8
Instructor Knowledge: 5.0
Instructor Enthusiasm: 4.9

IE398—APPLICATIONS OF OPERATIONS RESEARCH Fall, 2002 (Enrollment: 16)
Student teacher evaluations (scale of 5.0)
Teaching Effectiveness: 4.8
Course Quality: 4.7
Instructor Knowledge: 4.9
Instructor Enthusiasm: 5.0

Short Courses Offered

“Experimental Algorithmics, with a Focus on Branch and Bound for Discrete Optimization Problems,” (with Cindy Phillips, Sandia National Lab)

DIMACS Reconnect Satellite Conference, Lafayette College, Easton, PA, June 2004.

“Numerical Optimization for Large Scale Systems,”

Winter School on High Performance and Grid Computing, Università della Calabria, Rende, Italy, March, 2005.

“A Practical Guide to Mixed Integer Nonlinear Programming,” (with Sven Leyffer, Argonne National Lab),

SIAM Conference on Optimization, Stockholm, May 2005.

Course Development

New Courses Offered

Stochastic Programming, IE495

Optimization Models and Applications, IE426

Core courses in the curriculum for the newly-offered M.S. in Analytical Finance.

Applications in Operations Research, IE398

University Training

Aided in design of one-day training seminar on the use of Lehigh’s Beowulf computing cluster.

Taught lecture on “Using Parallel Computing to Run Multiple Jobs.” (2003, 2004)

Course and Curriculum Design

Participated in design of course IE170, Algorithms in Systems Engineering

Participated in curriculum design for new degree in M.S. in Analytical Finance.

Student Supervision**Ph.D**

Jierui Shen, (2006)	“An Asynchronous Nested Decomposition Algorithm for Multistage Stochastic Programming on the Computational Grid”
Kumar Abhishek, (2007)	“Topics in Mixed Integer Nonlinear Programming”
Wasu Glankwamdee, (2007)	Undecided
Udom Janjarassuk, (2008)	Undecided
Mustafa Kilinc, (2008)	Undecided
James Ostrowski, (2008)	Undecided

Masters

Wasu Glankwamdee, 2004	“Lookahead Branching in Mixed Integer Programming”
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Ph.D. Thesis Committees

Shangyuan Luo, 2003	“Investigations of Parallel Replacement Analysis.”
João Gonçalves, 2005	“Elementary Linear Programming Algorithms for Finding Starting Solutions for Primal-Dual Interior Point Methods.”
Dorid Mustafa, 2005	“Internet Congestion Control: A Decentralized Rate Control Protocol Using Explicit and Implicit Congestion Notification.”
Clara Novoa, 2005	“Dynamic Vehicle Routing with Stochastic Customer Arrivals and Demands.”
Matthew Galati, (2005)	“Decomposition Methods for Large-scale Discrete Optimization.”
Yan Xu, (2005)	“Scalable Parallel Tree Search Algorithms.”
Svetlana Oshkai, (2006)	“Supplier Coalition in Buyer-Oriented Markets.”
Hyong-Mo Jeon, (2007)	“Joint Location-Inventory Optimization with Unreliable Facilities.”

Guided Independent Study

IE 372, Systems Engineering Design

Daniel Chun, Spring 2004 “The NEOS Server System”

IE 430, Management Science Project

Thomas de Marffy, Summer 2003 “Defining Relationships Between the S&P Computers (Hardware) and S&P Computers (Software) Benchmarks Using Regression Analysis and Hypothesis Testing”

IE 460, Engineering Project

Udom Janjarassuk, Spring 2005 “The Stochastic Network Interdiction Problem”

University Service

Library and Technology Services, Compute Server Selection Committee, 2004.

Library and Technology Services, Hiring Committee, 2003, 2005.

Lehigh Beowulf Steering Committee, 2003—2005

Lehigh Linux Workstation Committee, 2003—2005

Lehigh High Performance Computing Committee, 2005—Present

Department Service Industrial and Systems Engineering, Faculty Hiring Committee, 2003, 2004.
 Qualifier Exam Committee
 Andrew Hoffman (Fall '02), Ozer Akus (Spring '03), Hyong-Mo Jeon (Fall '03), Ali Pirlatin (Spring '04), Ashutosh Mahajan, Scott Denegre (Fall '04), Mustafa Kilinc, James Ostrowski (Spring '05), Jon Gardinier, (Fall '05).

Professional Activities Secretary-Treasurer, INFORMS Computing Society, 2006-Present
 Organizing Committee, MIP 2006 Workshop, Miami, 2006.
 Organizing Committee, Institute for Mathematics and Its Applications “Hot Topics” Workshop on Integer Programming, 2005.
 Member, Program Committee: Sixth International Conference on Parallel Processing and Applied Mathematics, Poznan, Poland, 2005.
 Member, Technical Leadership Council: Computation Infrastructure for Operations Research (COIN-OR) Foundation, 2004-present.
 Administrator, *Network Enabled Optimization System* (NEOS), 1998-present.
 Responsible for development and distribution of MINTO mixed integer programming software, 2003-present.
 Responsible for development and distribution of SUTIL stochastic programming utility library
 Mathematical Programming Society (MPS), Member, 1994—present
 Society for Industrial and Applied Mathematics (SIAM), Member 2003—present
 Institute for Operations Research and Management Science (INFORMS), Member, 1992—present

References Stephen J. Wright
 Professor
 Computer Sciences Department
 University of Wisconsin
 1210 West Dayton Street Madison, WI 53706
 (608) 262-4838 FAX: (608) 262-9777 swright@cs.wisc.edu

Daniel Bienstock
 Director
 Computational Optimization Research Center
 Department of Industrial Engineering and Operations Research
 Columbia University
 500 W. 120th St.
 New York, NY 10027
 (212) 854-2942 FAX: (212) 854-8103 dano@columbia.edu

Sven Leyffer
 Computational Mathematician
 Mathematics and Computer Science Division
 Argonne National Laboratory
 Argonne, IL 60439
 (630) 252-4698 FAX: (630) 252-5986 leyffer@mcs.anl.gov

Martin W. P. Savelsbergh
 Professor
 School of Industrial & Systems Engineering, Georgia Institute of Technology.
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(404) 894-3025 FAX: (404) 894-0390

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