

ZELDA B. ZABINSKY

Curriculum Vita
September 2018

Address

Department of Industrial and Systems Engineering
University of Washington, Seattle, WA 98195-2650
Voice: (206) 543-4607 Fax: (206) 685-3072
zelda@uw.edu
<http://faculty.washington.edu/zelda/>

Education

- Ph.D., Industrial & Operations Engineering,
University of Michigan, Ann Arbor MI, 1985
- M.S., Industrial & Operations Engineering,
University of Michigan, Ann Arbor, MI, 1984
- B.S., Mathematics (Magna Cum Laude),
University of Puget Sound, Tacoma, WA, 1977

Professional Experience

- 1998 – present Professor, Industrial and Systems Engineering (ISE) Department,
Adjunct Professor in the Mechanical, Electrical (2000-present) and
Civil and Environmental Engineering Departments, University of
Washington, Seattle, WA
- 2012 – 2017 Principal Scientist and Consultant, Atigeo LLC, Bellevue, WA
- 2015 – 2016 Sabbatical leave, Visiting Professor in the Statistics Department,
Chulalongkorn University, Thailand, and Faculty Sabbatical Leave
Program in the Office of Naval Research (ONR), SPAWAR, San
Diego, CA
- 2011 – 2013 Acting Chair of ISE for one year, Associate Chair of ISE for one year,
University of Washington, Seattle, WA
- Jan – Dec 2008 Sabbatical leave, Visiting Professor in the Statistics Department,
Chulalongkorn University, Bangkok, Thailand, and in the Statistics
Department, Macquarie University, Sydney, Australia
- Jan – Dec 2004 Professional leave at ClearSight Systems, Inc., Bellevue, WA
- 1993 – 1998 Associate Professor in the Industrial Engineering Program, Adjunct
Associate Professor in the Mechanical Engineering and Civil
Engineering Departments, University of Washington, Seattle, WA

July – Oct 1996 Sabbatical leave, Visiting Professor, Department of Mathematics and Computing, Central Queensland University, Rockhampton, Australia
1985 – 1993 Assistant Professor, Industrial Engineering Program, Adjunct Assistant Professor in the Mechanical Engineering Department, University of Washington, Seattle WA
1980 – 1985 Graduate student, Department of Industrial and Operations Engineering, University of Michigan, Ann Arbor MI
1980 – 1984 Senior Systems Analyst, Vector Research, Inc., Ann Arbor MI
1977 – 1978 Programmer/Analyst, Boeing Computer Services, Seattle WA

Honors & Awards

Nominated for the 2015 University of Washington Distinguished Teaching Award

Nominated for the 2012 Community of Innovators, Faculty Innovator, Research, in the College of Engineering at the University of Washington

IIE Fellow Award, May 2009

Voted *Outstanding Professor* by the students in Industrial Engineering, University of Washington, 2006-2007 and 2007-2008

Nominated for the 2007 Marsha L. Landolt Distinguished Graduate Mentor Award at the University of Washington

Nominated for the 2006 Distinguished Teaching Award at the University of Washington

Nominated for the 2004 and 2005 Marsha L. Landolt Distinguished Graduate Mentor Award at the University of Washington

Outstanding Professor Award in Industrial Engineering, University of Washington, 2000-2001

Alpha Pi Mu, IIE Honor Society, University of Washington, 2000

Excellence in Teaching Award in Industrial Engineering, University of Washington, 1995-1996, 1996-1997, and 1998-1999

Awarded an *Erskine Fellowship* from the University of Canterbury, Christchurch, New Zealand, Spring 1998

Research Initiation Award, National Science Foundation,
Global Optimization Algorithms For Engineering Design,
Industrial Engineering, University of Washington, 1992-1995

Biographical entries:

Marquis WHO'S WHO IN AMERICA, 57th edition, 2003
Marquis WHO'S WHO IN AMERICA, 56th edition, 2002
Marquis WHO'S WHO IN AMERICA, 55th edition, 2001
Marquis WHO'S WHO IN THE WEST, 28th edition, 2000-2001
International Who's Who of Professional and Business Women, 6th edition, 1999
Marquis WHO'S WHO IN THE WEST, 27th edition, 1999-2000
Marquis WHO'S WHO IN THE WEST, 26th edition, 1998-1999
Marquis WHO'S WHO IN THE WORLD, 14th edition, 1997
Marquis WHO'S WHO IN THE WEST, 25th edition, 1996-1997
Marquis WHO'S WHO IN AMERICA, 49th edition, 1995
THE WORLD WHO'S WHO OF WOMEN, Twelfth edition, Feb. 1994
Marquis WHO'S WHO IN SCIENCE AND ENGINEERING, 2nd ed., Jan. 1994

Benton Fellowship in Operations Research,
University of Michigan, 1983-1984

Howarth-Thompson Scholarship in Mathematics,
University of Puget Sound, 1973-1977

E. Goman Mathematics Award,
University of Puget Sound, 1977

Phi Kappa Phi and Mortar Board, National Honor Societies
University of Puget Sound, 1977

Courses Taught

Undergraduate courses in Industrial Engineering at the University of Washington:
Probability and Statistics for Engineers
Linear and Network Programming
Stochastic Models and Decision Analysis
Graduate courses in Industrial Engineering at the University of Washington:
Introduction to Optimization Models
Linear Optimization Models in Engineering
Applications of Optimization in Engineering Design

Professional Organizations

Institute of Industrial Engineers (IIE)
Institute for Operations Research and the Management Sciences (INFORMS)
Mathematical Optimization Society (formerly Mathematical Programming Society)

Editorial Board

Journal of Global Optimization, Associate Editor

International Journal of Operational Research, Editorial Board

Other Professional Activities

- Program Committee Member for 2018 INFORMS Annual Meeting, to be held in Seattle, WA, Nov. 2019
- Program Committee Member (Simulation Optimization Track) of the 2018 Winter Simulation Conference (WSC), Gothenburg, Sweden, Dec. 2018
- Program Committee Member of the 14th Global Optimization Workshop (LeGO 2018), Leiden, Netherlands, Sept 18 – 21, 2018
- Program Committee of the 4th International Conference on Machine Learning, Optimization and Data Science (LOD 2018), Volterra (Pisa), Tuscany, Italy, September 13 – 16, 2018
- Invited Sessions Chair for 2018 INFORMS International Conference, Taipei, Taiwan, June 2018
- Program Committee Member (Simulation Optimization Track) of the 2017 Winter Simulation Conference (WSC), Las Vegas, NV, Dec. 2017
- Program Committee Member (Healthcare Applications Track) of the 2017 Winter Simulation Conference (WSC), Las Vegas, NV, Dec. 2017
- Program Committee Member, 3rd International Workshop on Machine Learning, Optimization and Big Data - MOD 2017, Volterra (Pisa) Tuscany Italy, Sept. 2017
- Program Committee Member (Simulation Optimization Track) of the 2016 Winter Simulation Conference (WSC), Washington, D.C., Dec. 2016
- Program Committee Member (Healthcare Applications Track) of the 2016 Winter Simulation Conference (WSC), Washington, D.C., Dec. 2016
- Program Committee Member, 2nd International Workshop on Machine Learning, Optimization and Big Data - MOD 2016, Volterra (Pisa) Tuscany Italy, Aug 2016
- Committee Member of the IE Body of Knowledge Task Force, 2015
- Member of the Farkas Prize Committee in Optimization, 2015
- Program Committee Member (Simulation Optimization Track) of the 2015 Winter Simulation Conference (WSC), Huntington Beach, CA, Dec. 2015
- Program Committee Member (Analysis Methodology Track) of the 2014 Winter Simulation Conference (WSC), Savannah GA, Dec. 2014
- INFORMS' Junior Faculty Interest Group (JFIG) paper competition judge, 2014, 2015
- Organizing Committee Member of the 2014 INFORMS Manufacturing and Service Operations Management (MSOM) Conference, Seattle, June 2014
- Organizing Committee Member of the Third World Congress on Global Optimization (WCGO-III), and Organizer of Symposium on Stochastic Optimization Workshop, Huangshan (Yellow Mountain), China, July 2013
- Board member of Pacific Institute for the Mathematical Sciences (PIMS), 2006-2013
- Organizing Committee Member of the International Stochastic and Applied Global Optimization Workshop (SAGO), Skukuza, South Africa, July 2008
- General Chair of the INFORMS Annual Meeting, Seattle, November 2007
- Program Chair of the International INFORMS Meeting, Maui, June 2001

Appointed Member of Faculty Advisory Board for Women in Engineering (WIE)
Initiative in the UW College of Engineering, 1990-2000

Publications in Archival Journals

1. St. John, R., Toth, S., and Zabinsky, Z. B., "Combining path planning from artificial intelligence with mixed-integer programming to optimize the geometry of wildlife corridors in reserve design," accepted in *Operations Research*, 2018.
2. Kiatsupaibul, S., Smith, R. L., and Zabinsky, Z. B., "Single Observation Adaptive Search for Continuous Simulation," accepted in *Operations Research*, 2018.
3. Kohn, W., Placek, P., Zabinsky, Z. B., and Cross, J., "An Incremental Probability Model for Dynamic Systems," accepted in *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 2018.
4. Placek, P. C., Kohn, W., and Zabinsky, Z. B., "An I-frame Methodology for Approximating Nonlinear Least Squares," accepted in *IEEE Transactions on Systems, Man and Cybernetics: Systems*, early access, Volume: PP, Issue: 99, Pages:1 – 10, IEEE Early Access Articles, 2017.
5. Li, Y., Huang, H., Zabinsky, Z. B., and Liu, S., "Optimizing Implementation of Hepatitis C Birth-Cohort Screening and Treatment Strategies: Model-Based Projections" (MDM-PP-16-038.R2), *Medical Decision Making (MDM) Policy & Practice*, Vol. 2(1), January 1, 2017.
6. Chaovalitwongse, P., Somprasonk, K., Phumchusri, N., Heim, J. A., Zabinsky, Z. B., and Chaovalitwongse, W. A., "A Decision Support Model for Staff Allocation of Mobile Medical Service," *Annals of Operations Research*, Vol.249(1), pp.433-448, 2017.
7. Kiatsupaibul, S., Smith, R. L., and Zabinsky, Z. B., "Solving infinite horizon optimization problems through analysis of a one-dimensional global optimization," *Journal of Global Optimization*, Vol. 66(4), pp. 711-72, 2016.
8. Kohn, W., Zabinsky, Z. B., and Nerode, A., "A Micro-grid Distributed Intelligent Control and Management System," *IEEE Transactions on Smart Grid*, Volume 6(6), pages 2964-2974, 2015.
9. Wakayama, C. Y., Zabinsky, Z. B., Plate, R., and Hoff, J., "Dynamic adaptive ping scheduling for monostatic active sonar systems in convergence zone environments," *U.S. Navy Journal of Underwater Acoustics*, 2015.
10. Heim, Joseph A., Huang, Hao, Zabinsky, Zelda B., Dickerson, Jane, Wellner, Monica, Astion, Michael, Cruz, Doris, Vincent, Jeanne, and Jack, Rhona, "Design

- and Implementation of a Combined Influenza Immunization and Tuberculosis Screening Campaign with Simulation Modeling,” *Journal of Evaluation in Clinical Practice*, Volume 21(4), pages 727-734, 2015.
11. Supsomboon, Srisawat, and Zabinsky, Z. B., “An integer programming for airplane routing in the US Center-TRACON,” *Songklanakarinn Journal of Science & Technology*, Volume 37(3), 2015.
 12. Mete, H. O., and Zabinsky, Z. B., “Multi-objective Interacting Particle Algorithm for Global Optimization,” *INFORMS Journal on Computing*, Volume 26, Issue 3, pages 500-513, 2014.
 13. Zhang, P., Kohn, W., and Zabinsky, Z. B., “A Discrete Meta-Control Procedure for Approximating Solutions to Binary Programs,” *Entropy*, Special Issue "Dynamical Systems," 15(9), pages 3592-3601, 2013.
 14. Zangeneh-Khamooshi, S., Zabinsky, Z. B., and Heim, J. A., “A Multi-shift Vehicle Routing Problem with Windows and Cycle Times,” *Optimization Letters*, 7(6), pages 1215-1225, 2013.
 15. Mete, H. O., and Zabinsky, Z. B., “Pattern Hit-and-Run for Sampling Efficiently on Polytopes,” *Operations Research Letters*, Vol. 40, Issue 1, pages 6-11, 2012.
 16. Kiatsupaibul, S., Smith, R. L., and Zabinsky, Z. B., “An Analysis of a Variation of Hit-and-Run for Uniform Sampling from General Regions,” *ACM Transactions on Modeling and Computer Simulation (ACM TOMACS)*, Vol. 21, No. 3, article 16, pages 16:1-16:11, March 2011.
 17. Li, L., and Zabinsky, Z. B., “Incorporating Uncertainty into a Supplier Selection Problem,” *International Journal of Production Economics*, Volume 134, Issue 2, pages 344-356, 2011.
 18. Barker, T. J., and Zabinsky, Z. B., “A Multi-Objective Decision Making Model for Reverse Logistics Using Analytical Hierarchy Process,” *Omega* 39, pages 558-573, 2011.
 19. Liu, H., Zabinsky, Z. B., and Kohn, W., “Rule-based Forecasting and Production Control System Design Utilizing a Feedback Control Architecture,” *IIE Transactions*, Vol. 43, Issue 2, pages 143-152, February 2011.
 20. Mete, H. O., Shen, Y., Zabinsky, Z. B., Kiatsupaibul, S., and Smith, R. L., “Pattern Discrete and Mixed Hit-and-Run for Global Optimization,” *Journal of Global Optimization*, Volume 50, Number 4, pages 597-627, 2011.

21. Mete, H. O., and Zabinsky, Z. B., "Stochastic Optimization of Medical Supply Location and Distribution in Disaster Management," *International Journal of Production Economics*, Volume 126, Issue 1, pages 76-84, July 2010.
22. Kohn, W., Brayman, V., Zabinsky, Z. B., and Shen, Y., "Variational Optimization via Chattering," *Nonlinear Analysis: Hybrid Systems*, Vol. 4, Number 4, pages 736-742, 2010.
23. Molvalioglu, O., Zabinsky, Z. B., and Kohn, W., "Meta-control of an interacting-particle algorithm," *Nonlinear Analysis: Hybrid Systems*, Vol. 4, Number 4, pages 659-671, 2010.
24. Zabinsky, Z. B., Bulger, D., and Khompatraporn, C., "Stopping and Restarting Strategy for Stochastic Sequential Search in Global Optimization," *Journal of Global Optimization*, Vol. 46, Number 2, pages 273-286, 2010.
25. Wang, W., Ghate, A., and Zabinsky, Z. B., "Adaptive Parameterized Improving Hit-and-Run for Global Optimization," *Optimization Methods and Software (OMS)*, Volume 24, Numbers 4-5, pages 569-594, 2009.
26. Baumert, S., Ghate, A., Kiatsupaibul, S., Shen, Y., Smith, R. L., and Zabinsky, Z. B., "Discrete Hit-and-Run for Generating Multivariate Distributions over Arbitrary Finite Subsets of a Lattice," *Operations Research*, Vol. 57, No. 3, pages 727-739, 2009.
27. Molvalioglu, O., Zabinsky, Z. B., and Kohn, W., "The interacting-particle algorithm with dynamic heating and cooling," *Journal of Global Optimization*, Vol. 43, pages 329-356, 2009.
28. Wakayama, C. Y., Kohn, W., Zabinsky, Z. B., and Shi, C. J. R., "Phase control of a nano-structured light-harvesting architecture," *Nonlinear Analysis: Hybrid Systems*, Vol. 2, Issue 4, pages 1098-1112, 2008.
29. Von Haartman, K., Kohn, W., and Zabinsky, Z. B., "A Meta Control Algorithm for Generating Approximate Solutions to Binary Integer Programming Problems," *Nonlinear Analysis: Hybrid Systems*, Vol. 2, Issue 4, pages 1232-1244, 2008.
30. Barker, T. J., and Zabinsky, Z. B., "Reverse logistics network design: a conceptual framework for decision making," *International Journal of Sustainable Engineering*, 1:4, 250-260, 2008.
31. Lui, H., Shen, Y., Zabinsky, Z. B., Liu, C. C., Courts, A., and Joo, S. K., "Social Welfare Maximization in Transmission Enhancement Considering Network Congestion," *IEEE Transactions on Power Systems*, Vol. 23, No. 3, pages 1105-1114, 2008.

32. Shen, Y., Kiatsupaibul, S., Zabinsky, Z. B., and Smith, R. L., "An Analytically Derived Cooling Schedule for Simulated Annealing," *Journal of Global Optimization*, Vol. 38, pages 333-365, 2007.
33. Dür, M., Khompatraporn, C., and Zabinsky, Z. B., "Solving Fractional Problems with Dynamic Multistart Improving Hit-and-Run," *Annals of Operations Research*, Vol. 156, pages 25-44, 2007.
34. Kohn, W., Zabinsky, Z. B., and Brayman, V., "Optimization of Algorithmic Parameters using a Meta-Control Approach," *Journal of Global Optimization*, Vol. 34, pages 293-316, 2006.
35. Toktas, B., Yen, J. W., and Zabinsky, Z. B., "Addressing Capacity Uncertainty in Resource-Constrained Assignment Problems," *Computers and Operations Research*, Vol. 33, pages 724-745, 2006.
36. Ali, M. M., Khompatraporn, C., and Zabinsky, Z. B., "A Numerical Evaluation of Several Global Optimization Algorithms on Selected Benchmark Test Problems," *Journal of Global Optimization*, Vol. 31, No. 4, pages 635-672, 2005.
37. Khompatraporn, C., Zabinsky, Z. B., and Pintér, J., "Comparative Assessment of Algorithms and Software for Global Optimization," *Journal of Global Optimization*, Vol. 31, No. 4, pages 613-633, 2005.
38. Joo, S. K., Liu, C. C., Shen, Y., Zabinsky, Z. B., and Lawarrée, J., "Optimization Techniques for Available Transfer Capability (ATC) and Market Calculations," the Institute of Mathematics and Its Applications (IMA) *Journal of Management Mathematics*, Vol. 15, No. 4, pages 321-337, 2004.
39. Bulger, D. W., Alexander, D., Baritompa, W. P., Wood, G. R., and Zabinsky, Z. B., "Expected Hitting Times for Backtracking Adaptive Search," *Optimization*, Vol. 53, Number 2, pages 189-202, 2004.
40. Toktas, B., Yen, J. W., and Zabinsky, Z. B., "A Stochastic Programming Approach to Resource-Constrained Assignment Problems," available on *Stochastic Programming E-Print Series* <http://www.speps.info>, 2004.
41. Brayman, V., Zabinsky, Z. B., and Kohn, W., "Decentralized Dual-Based Algorithm for Computing Optimal Flows in a General Supply Chain," *Journal of Global Optimization*, Vol. 26, pages 79-96, 2003.
42. Zabinsky, Z. B., Smith, R. L and Kristinsdottir, B. P., "Optimal Estimation of Univariate Black-Box Lipschitz Functions with Upper and Lower Error Bounds," *Computers and Operations Research*, Vol. 30, Issue 10, pages 1539-1553, 2003.

43. Savic, V., Tuttle, M. E., Zabinsky, Z. B., "Optimization of Composite I-Sections Using Fiber Angles as Design Variables," *Composite Structures*, Vol. 53, pages 265-277, 2001.
44. Heim, J., Zabinsky, Z. B., Eder-Staggs, K., Morrison, H., "Decision tool for allocating and scheduling ambulatory care clinic facilities," *International Journal of Healthcare Technology and Management*, Vol. 3, Nos. 2/3/4, pages 225-241, 2001.
45. Wood, G. R., Zabinsky, Z. B., Kristinsdottir, B. P., "Hesitant adaptive search: the distribution of the number of iterations to convergence," *Mathematical Programming*, Vol. 89, No. 3, pages 479-486, 2001.
46. Bulger, D., Wood, G. R., Alexander, D., Baritompa, W. P., Zabinsky, Z. B., "Adaptive search theory for global optimisation," *New Zealand Science Review*, Vol. 58, No. 1, pages 24-28, 2001.
47. Kristinsdottir, B.P., Zabinsky, Z. B., Tuttle, M. E., and Neogi, S., "Optimal Design of Large Composite Panels with Varying Loads," *Composite Structures*, Vol. 51, pages 93-102, 2001.
48. Romeijn, H. E., Zabinsky, Z. B., Graesser, D. L., and Neogi, S., "New Reflection Generator for Simulated Annealing in Mixed-Integer/Continuous Global Optimization," *Journal of Optimization Theory and Applications*, Vol. 101, No. 2, pages 403-427, 1999.
49. Zabinsky, Z. B., "Stochastic methods for practical global optimization," *Journal of Global Optimization* 13, pages 433-444, 1998.
50. Bare, J. M., Kapur, K. C., and Zabinsky, Z. B., "Optimization Methods for Tolerance Design Using a First-Order Approximation for System Variance," *Engineering Design and Automation*, 2(3), pages 203-214, 1996.
51. Kristinsdottir, B. P., Zabinsky, Z. B., Tuttle, M. E., and Csendes, T., "Incorporating manufacturing tolerances in near-optimal design of composite structures," *Engineering Optimization*, Vol. 26, pages 1-23, 1996.
52. Zabinsky, Z. B., Wood, G. R., Steel, M. A., and Baritompa, W. P., "Pure Adaptive Search for Finite Global Optimization," *Mathematical Programming*, 69, pages 443-448, 1995.
53. Csendes, T., Zabinsky, Z. B., Kristinsdottir, B. P., "Constructing large feasible suboptimal intervals for constrained nonlinear optimization," *Annals of Operations Research*, 58, pages 279-293, 1995.

54. Baritompa, W. P., Baoping, Zhang, Mladineo, R. H., Wood, G. R., and Zabinsky, Z. B., "Towards Pure Adaptive Search," *Journal of Global Optimization*, Vol. 7, No. 1, pages 93-110, 1995.
55. Niemeier, D. A., Zabinsky, Z. B., Zeng, Z., and Rutherford, G. S., "Optimization Models for Transportation Project Programming Process," *Journal of Transportation Engineering*, Vol. 121, No. 1, pages 14-26, Jan/Feb 1995.
56. Kristinsdottir, B. P., Zabinsky, Z. B., Csendes, T., and Tuttle, M. E., "Methodologies for Tolerance Intervals," *Journal of Interval Computations* 3, pages 133-147, 1993.
57. Song, W., Zabinsky, Z. B., and Storch, R. L., "An Algorithm for Scheduling A Chemical Processing Tank Line," *Production Planning and Control*, Vol. 4, No. 4, pages 323-332, 1993.
58. Graesser, D. L., Zabinsky, Z. B., Tuttle, M. E., and Kim, G. I., "Optimal Design of a Composite Structure," *Composite Structures* 24, pages 273-281, 1993.
59. Zabinsky, Z. B., Smith, R. L., McDonald, J. F., Romeijn, H. E., and Kaufman, D. E., "Improving Hit-and-Run For Global Optimization," *Journal of Global Optimization*, Vol. 3, No. 2, pages 171-192, 1993.
60. Zabinsky, Z. B., Greulich, F. E., and Miyata, E. S., "A Nonlinear Programming Approach to Skidder Congestion," *Transactions of the ASAE (American Society of Agricultural Engineering)* 35, pages 335-339, 1992.
61. Zabinsky, Z. B., and Smith, R. L., "Pure Adaptive Search in Global Optimization," *Mathematical Programming* 53, pages 323-338, 1992.
62. Graesser, D. L., Zabinsky, Z. B., Tuttle, M. E., and Kim, G. I., "Designing Laminated Composites Using Random Search Techniques," *Composite Structures* 18, pages 311-325, 1991.
63. Patel, N., Smith, R. L., and Zabinsky, Z. B., "Pure Adaptive Search in Monte Carlo Optimization," *Mathematical Programming* 43, pages 317-328, 1988.

Papers Under Review for Archival Journals

- Linz, D., Zabinsky, Z. B., Heim, J. A., and Fishman, P., "A Multi-Objective Model for Optimizing Staffing Across Geographically Distributed Patient Centered Medical Home."
- Ho, T., Fishman, P., and Zabinsky, Z. B., "Stochastic Stackelberg Game Application for Incentive-based Cost-sharing Design in Healthcare Insurance."

Zelda B. Zabinsky, Pattamon Dulyakupt, Shabnam Zangeneh-Khamooshi, Cao Xiao, Pengbo Zhang, Seksan Kiatsupaibul, and Joseph A. Heim, “Optimal Collection of Medical Specimens and Delivery to Central Laboratory.”

TingYu Ho, Shan Liu, and Zelda B. Zabinsky, “A Multi-Fidelity Rollout Algorithm for Dynamic Resource Allocation in Population Disease Management.”

Book

Stochastic Adaptive Search in Global Optimization, Zelda B. Zabinsky, Kluwer Academic Publishers (now Springer), pages 1-224, 2003. (A review of my book appeared in *Interfaces*, Vol. 35, No. 4, July-August 2005, pages 339-345.)

Book Chapters

1. Zabinsky, Z. B., and Huang H., “A Partition-based Optimization Approach for Level Set Approximation: Probabilistic Branch and Bound.” Accepted as an invited book chapter to be published in, Women in Industrial and Systems Engineering: Key Advances and Perspectives on Emerging Topics, Alice E. Smith, editor, Springer Nature, forthcoming 2019.
2. Zabinsky, Z. B., “Stochastic Adaptive Search Methods: Theory and Implementation,” a book chapter in the Handbook on Simulation Optimization, Editor Michael Fu, Springer Science+Business Media, New York, pages 293-218, 2015.
3. Zabinsky, Z. B. and Smith, R. L., “Hit-and-Run Methods,” a book chapter in the Encyclopedia of Operations Research & Management Science 3rd Edition, Saul I. Gass and Michael C. Fu (ed.s), Springer Science+Business Media New York, 2013.
4. Zabinsky, Z. B., “Random Search Algorithms,” a book chapter in the Wiley Encyclopedia of Operations Research and Management Science, 8 Volume Set, edited by James J. Cochran, Louis Anthony Cox, Jr., Pinar Keskinocak, Jeffrey P. Kharoufeh and J. Cole Smith, John Wiley & Sons, 2011.
5. Zabinsky, Z. B., “Stochastic Search Methods for Global Optimization,” a book chapter in the Wiley Encyclopedia of Operations Research and Management Science, 8 Volume Set, edited by James J. Cochran, Louis Anthony Cox, Jr., Pinar Keskinocak, Jeffrey P. Kharoufeh and J. Cole Smith, John Wiley & Sons, 2011.
6. Molvalioglu, O., Zabinsky, Z. B., and Kohn, W., “Multi-particle Simulated Annealing,” a book chapter in Models and Algorithms for Global Optimization, dedicated to Antanas Zilinskas on the occasion of his 60th birthday, edited by Aimo Törn and Julius Zilinskas, a book in the Optimization and its Applications series published by Springer, pages 215-222, 2007.

7. Zabinsky, Z. B., Tuttle, M. E., and Khompatraporn, C., “A Case Study: Composite Structure Design Optimization,” a book chapter in Global Optimization: Scientific and Engineering Case Studies, edited by Janos Pintér, in the Nonconvex Optimization and its Applications series published by Springer Science and Business Media, pages 507-528, 2006.
8. Kristinsdottir, B. P., Zabinsky, Z. B., and Wood, G. R., “Discrete Backtracking Adaptive Search for Global Optimization,” a book chapter in Stochastic and Global Optimization, dedicated to the 70th anniversary of Professor J. Mockus, edited by G. Dzemyda, V. Saltenis, A. Zilinskas, Kluwer Academic Publishers, pages 147-174, 2002.
9. Wood, G. R., and Zabinsky, Z. B., “Stochastic Adaptive Search,” a book chapter in Handbook of Global Optimization Volume 2, P.M. Pardalos and H.E. Romeijn (eds.), Kluwer Academic Publishers, Dordrecht, The Netherlands, pages 231-249, 2002.
10. Zabinsky, Z. B., and Wood, G. R., “Implementation of Stochastic Adaptive Search with Hit-and-Run as a Generator,” a book chapter in Handbook of Global Optimization Volume 2, P.M. Pardalos and H.E. Romeijn (eds.), Kluwer Academic Publishers, Dordrecht, The Netherlands, pages 251-273, 2002.
11. Zabinsky, Z. B., “Global optimization: Hit and run methods,” a book chapter in the Encyclopedia of Optimization, Vol. 2, edited by Christodoulos A. Floudas, Panos M. Pardalos, Kluwer Academic Publishers, pages 280-283, 2001.
12. Zabinsky, Z. B., “Optimal design of composite structures,” a book chapter in the Encyclopedia of Optimization, Vol. 4, edited by Christodoulos A. Floudas, Panos M. Pardalos, Kluwer Academic Publishers, pages 153-160, 2001.
13. Zabinsky, Z. B., and Kristinsdottir, B. P., “Complexity Analysis Integrating Pure Adaptive Search (PAS) and Pure Random Search (PRS),” a book chapter in Developments in Global Optimization, ed.s: Bomze, Csendes, Horst, and Pardalos, Kluwer Academic Publishers, pages 171-182, 1997.
14. Zabinsky, Z. B., Graesser, D. L., Tuttle, M. E., and Kim, G. I., “Global Optimization of Composite Laminates Using Improving Hit and Run,” a book chapter in Recent Advances in Global Optimization, ed.s: Floudas, C., and Pardalos, P., pages 343-368, Princeton University Press, 1992.

Patents Submitted and/or Awarded

- Patent assigned to Microsoft, “SYSTEM FORECASTING AND IMPROVEMENT USING MEAN FIELD,” (Mean Field, MS #355250) Wolf Kohn, Zelda B Zabinsky, Rekha Nanda, Yanfang Shen, Michael Ehrenberg, US Patent 20,160,125,434, Publication date 5/5/2016.

- Patent assigned to Microsoft, “INTERROGATION OF MEAN FIELD SYSTEM,” (Why Facility, MS #356107) Wolf Kohn, Zelda B Zabinsky, Michael Ehrenberg, Rekha Nanda, Sam H Skrivan, US Patent 20,160,125,435, Publication date 5/5/2016.
- Patent assigned to Microsoft, "COMBINED DISCRETE AND INCREMENTAL OPTIMIZATION IN GENERATING ACTIONABLE OUTPUTS," (Fast marching algorithm, MS #355492) Wolf Kohn, Zelda B. Zabinsky, Rekha Nanda, US Patent 20,160,125,290, Publication date 5/5/2016.
- Patent Pending, Space and Naval Warfare Systems Center, Pacific, San Diego, CA, ENERGY-COGNIZANT SCHEDULING OF STORE-AND-FORWARD COMMUNICATIONS WITH MULTIPLE PRIORITY LEVELS IN SATELLITE SYSTEMS Cherry Y Wakayama, Peter J Yoo, Zelda B Zabinsky, 4/6/2017.

Publications in Proceedings

1. Tsai, Yi-An, Perego, Riccardo, Pedrielli, Giulia, Huang, Hao, Zabinsky, Z. B., Candelieri, Antonio, Mathesen, Logan, “Stochastic Optimization for Feasibility Determination: An Application to Water Pump Operation in Water Distribution,” accepted in the *Proceedings of the 2018 Winter Simulation Conference*, M. Rabe, A.A. Juan, N. Mustafee, A. Skoogh, S. Jain, and B. Johansson, eds., Sweden, Dec. 2018.
2. Song, Michelle, Zabinsky, Z. B., and Wakayama, Cherry Y., “Dynamic Message Scheduling with Uncertain Demands in a Store-and-Forward Nanosatellite Communications Architecture,” *Proceedings of the 32nd Annual AIAA/USU Conference on Small Satellites*, Logan, UT, Aug 4-9, 2018.
3. Kohn, W., Zabinsky, Z. B., Nerode, A., “Self-assembly via a quantum control tracking system,” paper published in *TechConnect Briefs*, and presented at the 2018 TechConnect World Innovation Conference, Anaheim, CA, May 14-16, 2018.
4. Wakayama, Cherry Y., Zabinsky, Zelda B., Song, Michelle, and Witke, Kimberly, “Dynamic Autonomous Message Delivery Scheduling in a Nanosatellite Store-and-Forward Communication Architecture,” Ground System Architectures Workshop 2018, Los Angeles, CA, Feb 26 – Mar 1, 2018.
5. Linz, D. D., Huang, H., and Zabinsky, Z. B., “Multi-fidelity Simulation Optimization with Level Set Approximation Using Probabilistic Branch and Bound,” *Proceedings of the 2017 Winter Simulation Conference*, W. K. V. Chan, A. D’Ambrogio, G. Zacharewicz, N. Mustafee, G. Wainer, and E. Page, eds., Las Vegas, NV, Dec. 2017.
6. Linz, D. D., Zabinsky, Z. B., Kiatsupaibul, S., and Smith, R. L., “A Computational Comparison of Simulation Optimization Methods using Single Observation,” *Proceedings of the 2017 Winter Simulation Conference*, W. K. V. Chan, A. D’Ambrogio, G. Zacharewicz, N. Mustafee, G. Wainer, and E. Page, eds., Las Vegas, NV, Dec. 2017.

7. Kohn, W., and Zabinsky, Z. B., "Feedback Process Control for Nano-manufacturing of Semiconductor Circuits," paper published in *TechConnect Briefs*, and presented at the 2017 TechConnect World Innovation Conference, May 14-17, 2017, Washington D.C.
8. Ho, T., Fishman, P., and Zabinsky, Z. B., "Designing and Analyzing Healthcare Insurance Policies to Reduce Cost and Prevent the Spread of Seasonal Influenza," *Proceedings of the 2016 Winter Simulation Conference*, T. M. K. Roeder, P. I. Frazier, R. Szechtman, E. Zhou, T. Huschka, and S. E. Chick, eds., Washington D.C., December 2016. ** Best applied paper award **
9. Huang, H., Zabinsky, Z. B., Li, Y., and Liu, S., "Analyzing Hepatitis C Screening and Treatment Strategies Using Probabilistic Branch and Bound," *Proceedings of the 2016 Winter Simulation Conference*, T. M. K. Roeder, P. I. Frazier, R. Szechtman, E. Zhou, T. Huschka, and S. E. Chick, eds., Washington D.C., December 2016.
10. Linz, D., Huang, H., and Zabinsky, Z. B., "A Quantile-based Nested Partition Algorithm for Black-box Functions on a Continuous Domain," *Proceedings of the 2016 Winter Simulation Conference*, T. M. K. Roeder, P. I. Frazier, R. Szechtman, E. Zhou, T. Huschka, and S. E. Chick, eds., Washington D.C., December 2016.
11. Wakayama, C. Y., Yoo, P. J., and Zabinsky, Z. B., "Energy-Cognizant Scheduling of Store-and-Forward Communications with Multiple Priority Levels in Nanosatellite Systems," *Proceedings of the 29th Annual AIAA/USU Conference on Small Satellites*, paper number SSC16-P2-03, Logan, UT, August 2016.
<http://digitalcommons.usu.edu/smallsat/2016/all2016/03/>
12. Kiatsupaibul, S., Smith, R. L., and Zabinsky, Z. B., "Improving Hit-and-Run with Single Observations for Continuous Simulation Optimization," *Proceedings of the 2015 Winter Simulation Conference*, L. Yilmaz, W. K V. Chan, I. Moon, T. M. K. Roeder, C. Macal, and M. D. Rossetti, eds., Huntington Beach, CA, December 2015.
13. Wakayama, C., and Zabinsky, Z. B., "Simulation-driven Task Prioritization using a Restless Bandit Model for Active Sonar Missions," *Proceedings of the 2015 Winter Simulation Conference*, L. Yilmaz, W. K V. Chan, I. Moon, T. M. K. Roeder, C. Macal, and M. D. Rossetti, eds., Huntington Beach, CA, December 2015.
14. Linz, D., Huang, H., and Zabinsky, Z. B., "Updating Sample Allocation Strategy with Look-ahead for Partition-Based Optimization," *Proceedings of the 2015 Winter Simulation Conference*, L. Yilmaz, W. K V. Chan, I. Moon, T. M. K. Roeder, C. Macal, and M. D. Rossetti, eds., Huntington Beach, CA, December 2015.
15. Huang, H., and Zabinsky, Z. B., "Multiple Objective Probabilistic Branch and Bound for Pareto Optimal Approximation," *Proceedings of the 2014 Winter Simulation*

- Conference*, A. Tolk, S. D. Diallo, I. O. Ryzhov, L. Yilmaz, S. Buckley, and J. A. Miller, eds., Savannah GA, December 2014.
16. Wakayama, C., and Zabinsky, Z. B., "Ping Control and Scheduling for Distributed Monostatic Active Sonar Systems in Convergence Zone Environments," *Proceedings of the 82nd MORS (Military Operations Research) Symposium*, Alexandria VA, 16-19 June 2014.
 17. Huang, H., and Zabinsky, Z. B., "Adaptive Probabilistic Branch and Bound with Confidence Intervals for Level Set Approximation," *Proceedings of the 2013 Winter Simulation Conference*, R. Pasupathy, S.-H. Kim, A. Tolk, R. Hill, and M. E. Kuhl, eds., Washington, D. C., 8-11 December 2013.
 18. Shefts, T., Sujitnapitsatham, S., Fishman, P. A., Heim, J. A., and Zabinsky, Z. B., Concurrent construction of patient panels and care provider teams, *Proceedings of the 2013 Industrial and Systems Engineering Research Conference (ISERC)*, Puerto Rico, May 2013.
 19. Wang, H., Huang, H., Heim, J. A., Zabinsky, Z. B., Childs, J., and Robbe, V., Analyzing Clinical Laboratories using an Object-oriented Hierarchy and Discrete-event Simulation, *Proceedings of the 2013 Industrial and Systems Engineering Research Conference (ISERC)*, Puerto Rico, May 2013.
 20. Wakayama, C., Zabinsky, Z. B., and Grimmett, D. J., "Linear Optimization Models with Integer Solutions for Ping Control Problems in Multistatic Active Acoustic Networks," *Proceedings of the 15th International Conference on Information Fusion (Fusion 2012)*, Singapore, 9-12 July 2012.
 21. Zangeneh-Khamooshi, S., Zabinsky, Z. B., Heim, J. A., A Global Optimization Algorithm for Multi-shift Vehicle Routing Problems, *Proceedings of the 2012 Industrial and Systems Engineering Research Conference (ISERC)*, Florida, May 2012.
 22. Zabinsky, Z. B., Wang, W., Prasetio, Y. M., Ghate, A., and Yen, J. W., "Adaptive Probabilistic Branch and Bound for Level Set Approximation," *Proceedings of the 2011 Winter Simulation Conference*, S. Jain, R. R. Creasey, J. Himmelspach, K. P. White, and M. Fu, eds., Phoenix, AZ, 11-14 December 2011.
 23. Wakayama, C. Y., Grimmett, D. J., and Zabinsky, Z. B., "Forecasting Probability of Target Presence for Ping Control in Multistatic Sonar Networks using Detection and Tracking Models," *Proceedings of the 14th International Conference on Information Fusion (Fusion 2011)*, Chicago, IL, 5-8 July 2011.
 24. Reed, D. A., Zabinsky, Z. B., and Boyle, L. N., "A Framework for Optimizing Civil Infrastructure Resiliency," *Proceedings of the Structures Congress 2011*, Las Vegas, NV, April 13-16, 2011.

25. Liu, H., Zabinsky, Z. B., and Kohn, W., "Rule-based Control System Design for Smart Grids," *Proceedings of the IEEE Power Energy Society (PES)*, Minneapolis, Minnesota, July 2010.
26. Barker, T. J., and Zabinsky, Z. B., "Reverse Logistics Network Design: A Framework for Decision Making," *Proceedings of the 2008 Industrial Engineering Research Conference (IERC)*, Vancouver, B. C., May 2008.
27. Mete, H. O., Zabinsky, Z. B., and Kohn, W., "Optimization of Enterprises Modeled by Rules," *Proceedings of the 2008 Industrial Engineering Research Conference (IERC)*, Vancouver, B. C., May 2008.
28. Campbell, B. D., Mete, H. O., Weghorst, S., Furness, T., and Zabinsky, Z. B., "Emergency Response Planning and Training through Interactive Simulation and Visualization with Decision Support," *2008 IEEE Conference on Technologies for Homeland Security*, Waltham, MA, May 12-13, pages 176-180, 2008.
29. Wakayama, C., Kohn, W., Zabinsky, Z. B., and Shi, C. J. R., "A Quantum-Dot Light Harvesting Architecture Using Deterministic Phase Control," *Proceedings of ISCAS 2008: International Symposium on Circuits and Systems*, Seattle, WA, May 18-21, 2008.
30. Barker, T. J., Kapur, K. C., and Zabinsky, Z. B., "A Network Optimization Algorithm to Evaluate Multistate Network Reliability," *Proceedings of ICRMS2007: International Conference on Reliability Maintainability and Safety*, Beijing, China, Aug. 22-26, 2007.
31. Wakayama, C., Kohn, W., Zabinsky, Z. B., and Shi, C. J. R. "Non-Demolition Quantum Phase-Locked Loops for Phase-Coherent Light-Harvesting," *Proceedings of the 2007 Nanoelectronic Devices for Defense & Security (NANO-DDS) Conference*, Washington D.C., June 2007.
32. Zabinsky, Z. B., Smith, R. L., "Adaptive Search in Global Optimization," *Proceedings of the 2006 NSF Design, Service and Manufacturing Grantees and Research Conference*, St. Louis, MO, July 2006.
33. Li, L., and Zabinsky, Z. B., "Vendor Selection and Purchasing Decisions," *Proceedings of the 2006 Industrial Engineering Research Conference (IERC)*, Orlando, FL, May 2006.
34. Khompataporn, C., Zabinsky, Z. B., and Tuttle, M. E., "Composite Structure Design via Global Optimization," *Proceedings of the IIE Network Conference 2005*, Bangkok, Thailand, October 2005.

35. Zabinsky, Z. B., Smith, R. L., "Adaptive Search in Global Optimization," *Proceedings of the 2005 NSF Design, Service and Manufacturing Grantees and Research Conference*, Phoenix, AZ, January 2005.
36. Zabinsky, Z. B., Smith, R. L., "Adaptive Search in Global Optimization," *Proceedings of the 2004 NSF Design, Service and Manufacturing Grantees and Research Conference*, Dallas, TX, January 2004.
37. Shen, Y., Lawarrée, J., Liu, C. C., Zabinsky, Z. B., "Global Optimization in an Electricity Market Environment," *Proceedings of the 2003 IEEE Bologna Power Tech Conference*, Bologna, Italy, June 2003.
38. Zabinsky, Z. B., Smith, R. L., "Adaptive Search in Global Optimization," *Proceedings of the 2003 NSF Design, Service and Manufacturing Grantees and Research Conference*, Birmingham, AL, January 2003.
39. Zabinsky, Z. B., Smith, R. L., "Adaptive Search for Global Optimization," *Proceedings of the 2002 NSF Design, Service and Manufacturing Grantees and Research Conference*, San Juan, Puerto Rico, January 2002.
40. Zabinsky, Z. B., Smith, R. L., "Adaptive Search for Global Optimization," *Proceedings of the 2001 NSF Design and Manufacturing Grantees Conference*, Tampa, FL, January 2001.
41. Zabinsky, Z. B., Luo, W., Tuttle, M. E., "Theoretical and Computational Insight into Parallel Global Optimization Using Random Search," *Proceedings of the 2000 NSF Design and Manufacturing Grantees Conference*, Vancouver, B.C., January 2000.
42. Zabinsky, Z. B., Smith, R. L., "Adaptive Search for Global Optimization," *Proceedings of the 2000 NSF Design and Manufacturing Grantees Conference*, Vancouver, B.C., January 2000.
43. Zabinsky, Z. B., Tuttle, M. E., Savic, V., "Optimization of Composite I-beams," *Proceedings of the 1999 NSF Design and Manufacturing Grantees Conference*, LA, California, January 1999.
44. Zabinsky, Z. B., Tuttle, M. E., Neogi, S., Kristinsdottir, B. P., Savic, V., "Design Optimization with Load Redistribution of Composite Panels," *Proceedings of the 1998 NSF Design and Manufacturing Grantees Conference*, Monterrey, Mexico, January 1998.
45. Leveson, N., Alfaro, L., Alvarado, C., Brown, M., Hunt, E. B., Jaffe, M., Joslyn, S., Pinnel, D., Reese, J., Samarziya, J., Sandys, S., Shaw, A., Zabinsky, Z., "Demonstration of a Safety Analysis on a Complex System," *Proceedings of the Twenty-Second Annual Software Engineering Workshop*, NASA Goddard, Dec. 1997.

46. Neogi, S., Tuttle, M. E., and Zabinsky, Z. B., "Design of Large Composite Structures Using Global Optimization and the Finite Element Method," *Proceedings of the 1997 ASME International Congress and Exposition*, 16-21, Dallas, TX, November 1997.
47. Zabinsky, Z. B., Tuttle, M. E., Neogi, S., Kristinsdottir, B. P., "Design Optimization of Composite Panels," *Proceedings of the 1997 NSF Design and Manufacturing Grantees Conference*, Seattle, January 1997.
48. Zabinsky, Z. B., Tuttle, M. E., Kristinsdottir, B. P., Neogi, S., "Optimal Design of Composite Panels With Non-Uniform Loads," *Proceedings of the 1996 NSF Design and Manufacturing Grantees Conference*, New Mexico, January 1996.
49. Zabinsky, Z. B., Seifer, J. D., Tuttle, M. E., Kristinsdottir, B. P., and Neogi, S., "Optimal Design of Composite Panels with Varying Loads," *Proceedings of the ICCE/2 Conference*, New Orleans, August 1995.
50. Neogi, S., Zabinsky, Z. B., and Tuttle, M. E., and Kristinsdottir, B. P., "Load Redistribution Issues in Optimal Design of Composites Airplane Structures," *Proceedings of the ICCE/2 Conference*, New Orleans, August 1995.
51. Song, W., Storch, R. L., Zabinsky, Z. B., "An Example for Scheduling a Chemical Processing Tank Line," *Proceedings of the 1995 Conference on Emerging Technologies and Factories Automation*, Paris, France, October 1995.
52. Mabson, G. E., Fredrikson, H. G., Graesser, D. L., Metschan, S. L., Proctor, M. R., Stogin, D. C., Tervo, D. K., Tuttle, M. E., Zabinsky, Z. B., and Gutowski, T. G., "Cost Optimization Software for Transport Aircraft Design Evaluation," *Proceedings of the 6th NASA/DOD/ARPA Advanced Composite Technology Conference*, August 1995.
53. Zabinsky, Z. B., and Tuttle, M. E., "Global Optimization of Composite Panels," *Proceedings of the 1995 NSF Design and Manufacturing Grantees Conference*, San Diego, CA, January 1995.
54. Neogi, S., Zabinsky, Z. B., and Tuttle, M. E. "Optimal Design of Composites Using Mixed Discrete and Continuous Variables," *Proceedings of the 1994 ASME Winter Annual Meeting, Symposium on Processing, Design and Performance of Composite Materials*, MD-Vol.52, 91-107, Chicago, IL, November 1994.
55. Zabinsky, Z. B., "Global Optimization for Composite Structural Design," *Proceedings of the 35th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Material Conference*, Hilton Head, SC, April 1994.
56. Kristinsdottir, B. P., and Zabinsky, Z. B., "Including Manufacturing Tolerances in Composite Design," *Proceedings of the 35th AIAA/ASME/ASCE/AHS/ASC*

- Structures, Structural Dynamics, and Material Conference*, Hilton Head, SC, April 1994.
57. Tuttle, M. E., and Zabinsky, Z. B., "Methodologies for Optimal Design of Composite Fuselage Crown Panels," *Proceedings of the 35th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Material Conference*, Hilton Head, SC, April 1994.
58. Zabinsky, Z. B., "Global Optimization for Engineering Design," *Proceedings of the 1994 NSF Design and Manufacturing Grantees Conference*, MIT, Cambridge, Massachusetts, January 1994.
59. Storch, R. L., Song, W., and Zabinsky, Z. B., "Scheduling A Chemical Processing Tank Line," *Proceedings of Advances in Production Management Systems (APMS)*, Athens, Greece, September 1993.
60. Kim, G. I., Tuttle, M. E., Zabinsky, Z. B., and Graesser, D. L., "The Influence of Boundary Conditions on the Optimization of Flat Laminated Plates for Buckling," *Proceedings of the 33rd AIAA/ASME/ASCE/AHS Structures, Structural Dynamics and Materials Conference*, Dallas, Texas, AIAA 92-2508, April 1992.
61. Heglund, D. A., Zabinsky, Z. B., Tuttle, M. E., Graesser, D. L., Kim, G. I., and Swanson, C. D., "Optimization in Preliminary Structural Design," *Proceedings of the 15th Annual IIE Aerospace & Defense Division Conference*, Seattle, Washington, February 1992.
62. Swanson, G. D., Ilcewicz, L. B., Walker, T., Graesser, D. L., Tuttle, M. E., and Zabinsky, Z. B., "Local Design Optimization for Transport Fuselage Crown Panels," *Proceedings of the 9th DoD/NASA/FAA Conference on Fibrous Composites in Structural Design*, Lake Tahoe, Nevada, November 1991.
63. Zabinsky, Z. B., Tuttle, M. E., Graesser, D. L., Kim, G. I., Hatcher, D., Swanson, G., Ilcewicz, L., "Multiparameter Optimization Tool for Low-Cost Commercial Fuselage Crown Designs," *Proceedings of the First NASA Composites Technology Conference 1990*, Seattle, Washington, October 1990.
64. Zabinsky, Z. B., Greulich, F. E., and Miyata, E. S., "Linear and Nonlinear Optimization of Skidder Yarding Time," *Proceedings of 1988 ASAE Winter Meeting*, Chicago, Illinois, December 1988.
65. Miyata, E. S., Rideout, D. B., Zabinsky, Z. B., and Mann, C. N., "Least Cost Analysis of Log Transportation," *Proceedings of 1986 ASAE Winter Meeting*, Chicago, Illinois, December 1986.

Industrial Engineering Magazine

Barker, T. J., and Zabinsky, Z. B., Reverse Logistics: A Guide for Efficient Supply Chain Design, Industrial Engineering Magazine, April 2010.

Dissertation

Zabinsky, Z. B., Computational Complexity of Adaptive Algorithms in Monte Carlo Optimization. University of Michigan, June 1985.

Selected Technical Reports

Kohn, W., and Zabinsky, Z. B., Synchronization Algorithm, Technical Report for Atigeo, June 2015.

Kohn, W., Zabinsky, Z. B., and others, Cooperative Distributed Inferencer (CDI), Technical Report for Atigeo, May 2015.

Kohn, W., Zabinsky, Z. B., and others, A Programmable Architecture for Multi-objective Optimal Feedback Control via Dynamic Set Inclusion for Enterprise Planning and Resource Allocation, Phases 1 and 2, Technical Report for Microsoft, June 2015.

Leveson, N., Sandys, S., Pinnel, D., Brown, M., Joslyn, S., Alfaro, L., Zabinsky, Z., and Shaw, A., Safety Analysis of Air Traffic Control Upgrades, *NASA final report, prepared at the University of Washington*, Seattle, WA, September 1997.

Mabson, G. E., Ilcewicz, L. B., Graesser, D. L., Metschan, S. L., Proctor, M.R., Tervo, D.K., Tuttle, M. E., Zabinsky, Z. B., and Freeman, W. T., Cost Optimization Software for Transport Aircraft Design Evaluation (COSTADE) - Overview, NASA Contractor Report 4736, under contracts NAS1-18889 and NAS1-20013 (task 2), prepared at the Boeing Company, Seattle, WA, August 1996.

Graesser, D. L., Zabinsky, Z. B., Tuttle, M. E., and Kim, G. I., UWCODA Users Manual (version 0.9) UWCODA stands for University of Washington Composite Optimization Design Algorithm, technical report from the Department of Mechanical Engineering, University of Washington, Seattle, WA 98195, March 1991.

Zabinsky, Z., Witus, G., & Talbert, K. Computer Graphics Based Aids for Tactical Command Control and Communication. Vector Research, Inc., VRI-ARI-7.0, WP83-5, 28 December 1983.

Zabinsky, Z. Literature Review on Human Factors in Teleconferencing Systems. Vector Research, Inc., VRI-ARI-7.0, WP83-3(R), 21 October 1983.

- Miller, G., Bonder, S., Graulich, M., & Zabinsky, Z. Development of an Operational Personnel Long Range Planning System. Vector Research, Inc., VRI-USAREC-1, FR83-1, 28 April 1983.
- Zabinsky, Z., White, W., & Domine, R. Data Base Specification for the MHSS DMIS. Vector Research, Inc., VRI-DHA-3, WP82-18(R), 8 November 1982.
- Zabinsky, Z., & White, W. Data Requirements Document for the MHSS DMIS. Vector Research, Inc., VRI-DHA-3, WP82-9, 10 May 1982.
- Zabinsky, Z., Becker, J., St. Claire, N., & White, W. Users Guide for the Interim DMIS. Vector Research, Inc., VRI-DHA-3, WP82-4, 15 February 1982.
- Blum, R., Witus, G., & Zabinsky, Z. Information Management and Human Factors in Tactical Command Control Systems. Vector Research, Inc., VRI-ARI-3, FR81-1, 15 June 1981.
- Witus, G., & Zabinsky, Z. Human Factors in Tactical Data Communications Systems. Vector Research, Inc., VRI-ARI-3, FR81-4, 15 June 1981.
- Witus, G., & Zabinsky, Z. Modeling Command Control and Communications Systems for Operational Analysis: A Methodology. Vector Research, Inc., VRI-ARI-3, FR81-3, 15 June 1981.

Grants and Proposals

- Principal Investigator, (co-PI is R. L. Smith) funded by the National Science Foundation, "Single Observation Simulation Optimization," \$294,548 for three years, Sept 1 2016 – August 31 2019, Grant No. CMMI-1632793.
- Co-Principal Investigator, (PI is W. Kohn) funded by Microsoft, "A Programmable Architecture for Multi-objective Optimal Feedback Control via Dynamic Set Inclusion for Enterprise Planning and Resource Allocation: PHASE 2," \$972,944 for July 1, 2014 until June 30, 2015.
- Co-Principal Investigator, (PI is W. Kohn) funded by Microsoft, "A Programmable Architecture for Multi-objective Optimal Feedback Control via Dynamic Set Inclusion for Enterprise Planning and Resource Allocation," \$640,000 for one year, February 2013 – February 2014. Supplement and extension of \$300,000 until June 30, 2014.
- Principal Investigator, (co-PIs are J. Heim and P. Fishman) funded by the National Science Foundation and the AHRQ, "Models For Designing Evidence-Based Patient-Centered Health Care Systems," \$499,655 for three years, Sept 2012 - Sept 2015, no-cost extension to Sept 2016, Grant No. CMMI-1235484.

Principal Investigator, (co-PI is W. Kohn) funded by the National Science Foundation, "DynSyst_Special_Topics: Optimization of Enterprise Dynamical Systems Described by Rules," \$387,000 for three years, Sept 2009 - Aug 2012, Grant No. CMMI-0908317, plus a Research Experience for Undergraduates (REU) supplement of \$6,000, for a total of \$393,000, no-cost extension to Aug 2013.

Co-Principal Investigator (PI includes Tom Furness and Mark Haselkorn), funded by the National Visualization and Analytics Center (NVAC), Department of Homeland Security, "Pacific Rim Regional Visualization and Analytics Center (PARVAC)," total is over \$600,000, ZZ portion is summer salary and continuous support for one PhD student, January 2006 - April 2008.

Principal Investigator, (co-PI is R. L. Smith) funded by the National Science Foundation, "Collaborative Research: Adaptive Search for Global Optimization," \$168,372 for four years, June 2003 - Sept 2007, Grant No. DMI-0244286.

Principal Investigator, funded by the National Science Foundation, "UW Planning Grant to join CELDi," \$10,000 for one year, Sept 2006 - Sept 2007.

Co-Principal Investigator (PI is Chen-Ching Liu), funded by the National Science Foundation, \$152,692, "Analysis of Complex, Multiple Electricity Markets," September 2004 - September 2006.

Principal Investigator, funded by the Port of Tacoma, "Port of Tacoma Simulation and Optimization Research," \$50,000 for two years, Dec. 2003 - Dec 2005.

Principal Investigator (co-PI is Joyce W. Yen), funded by the Boeing Company, \$412,103.16, "Air Traffic Flow Management Under Temporary Constraints," September 2001 - June 2006.

Optimization research with local industries, including scheduling, supply chain and inventory (approximately \$30,000), gift money from Genie Industries (1999-2001), Solectron (2001), Majiq (2001) and Microsoft (2001).

Principal Investigator, (co-PI is R. L. Smith) funded by National Science Foundation, "Adaptive Search for Global Optimization," \$191,607 for three years, June 1, 1999 - May 31, 2002, Grant No. DMI-9820878, and Research Experience for Undergraduates (REU) supplement of \$10,800.

Associate Investigator, (PI is G. R. Wood, other AI is W. Baritomba) funded by The Royal Society of New Zealand, the Marsden Fund, "Convergence rates of stochastic global optimisation algorithms," 421,000 NZ\$ for three years (ZZ portion is ~20,000) September 16, 1999 - September 15, 2002.

Principal Investigator (with M. E. Tuttle), funded by National Science Foundation, "Design Optimization of Composite Panels," \$291,261 for three years, 1996-1999, Grant No. DMI-9622433.

Principal Investigator, funded by National Partnership for Advanced Computational Infrastructure (NPACI), "Global Optimization of Composite Structures Using Massive Parallel Processing," 9,000 service units on IBM SP, July 1998 – December 1999.

Principal Investigator (with A. Haraldsdottir), funded by Federal Aviation Administration, \$118,449, "Optimum Use of Oceanic Airspace with Advanced Surveillance Technologies," September 1995-1997.

UW Medical Clinic research (with J. Heim), \$8,100 and \$11,000, for 1995-1997.

Principal Investigator, funded by the Boeing Company and NASA-Langley, \$27,683 for the summer, "Software Development of COSTADE," 1995.

Principal Investigator for Defense Acquisition Scholarship funding for Joanna Bare, Northeast Consortium for Engineering Education, \$23,516, 1994-1995.

Principal Investigator for postdoctoral fellow, funded by the Boeing Company and NASA-Langley, \$76,860 for one year, "Integration of COSTADE into the Access Manager Framework," 1993-1994.

Principal Investigator for Research Initiation Award, National Science Foundation, "Global Optimization Algorithms for Engineering Design," \$96,329 for three years, 1992-1995, Grant No. DDM-9211001.

Co-Principal Investigator with M. E. Tuttle, funded by the Boeing Company and NASA-Langley, \$455,800 for four years, "Integration of an Advanced Composite Technology Cost Model in UWCODA," March 1991 - Dec. 1994.

Principal Investigator for travel grant to visit the University of Canterbury, New Zealand, for 4 weeks in March-April 1993, to continue research on "Practical Lipschitz Based Approaches to Global Optimization," with Prof.s Graham Wood, and W.B. Baritomba, \$3,000, 1993.

Co-Principal Investigator with M. E. Tuttle, funded by the Boeing Company and NASA-Langley, \$88,471 for one year and three months, "Optimization of Composite Laminates," Dec. 1989 - March 1991.

Participant in NATO Grant, including 2 week visits to University of Michigan, Ann Arbor, MI, to present and pursue research in "Random Search Methods in Mathematical Programming," Project Coordinators were Robert L. Smith and Jan Telgen, \$6,900 for one year, 1989-1990, renewed for \$7,000 in 1991-1992.

Principal Investigator for “Performance Measures for Police Work,” funded by CTW Research, Inc., and King County Police, \$5,791 for Oct.1 - Dec. 31, 1990.

Principal Investigator for a National Forest Service cooperative study with E. S. Miyata, “Optimization Methodologies in Forestry Operations: Comparing Nonlinear and Linear Programming Techniques,” \$3,380 for one year, 1986-1987.

Principal Investigator for University of Washington Graduate School Research Fund Grant, “Random Search Methods for Global Optimization,” \$7,244, 1986-1987.

Grant from the Office of Continuing Education, University of Michigan, \$200 for research travel, 1984.

Professional Presentations Without Proceedings

Invited presentation in mini-symposium at SIAM Conference on Computational Science and Engineering (CSE19), to be held in Spokane, WA, Feb 25 –March 1, 2019, “Quantile Adaptive Search and Partition-based Algorithms for Global Optimization,” author list: Zelda B. Zabinsky and David D. Linz.

Invited presentation at the 2018 INFORMS Annual Meeting, Phoenix AZ, Nov. 2018, “Prevention of Seasonal Influenza Outbreak via Healthcare Insurance,” author list: Ting-Yu Ho, Zelda B. Zabinsky, Paul A. Fishman, and Shan Liu.

Presentation at the 2018 INFORMS Annual Meeting, Phoenix AZ, Nov. 2018, “Partition-based Simulation Optimization Algorithms for Primary Care Panel Management,” author list: David D. Linz, Zelda B. Zabinsky, and Paul A. Fishman.

Presentation at the 2018 INFORMS Annual Meeting, Phoenix AZ, Nov. 2018, “Optimizing Medical Supply Distribution in Rural Regions Considering Uncertainty,” author list: Larissa P. G. Petroianu, Zelda B. Zabinsky, and Mauricio G. C. Resende.

Presentation at the 2018 INFORMS Annual Meeting, Phoenix AZ, Nov. 2018, “Optimization and Scheduling Methodologies to Enable Low Earth Orbit Nano-satellite Communication,” author list: Michelle Song, Cherry Wakayama, and Zelda B. Zabinsky.

Presentation at the 40th Annual North American Meeting of the Society of Medical Decision Making (SMDM), Montreal, Canada, October 2018, “Dynamic Resource Allocation Algorithm for Population Disease Management,” author list: Ting-Yu Ho, Shan Liu, and Zelda B. Zabinsky.

Presentation at the 23rd International Symposium on Mathematical Programming (ISMP), Bordeaux, France, July 2018, “Dynamic Programming via a State Abstract Machine and Implementation,” author list: W. Kohn and Z. B. Zabinsky.

Presentation at the 23rd International Symposium on Mathematical Programming (ISMP), Bordeaux, France, July 2018, “An Incremental Probability Model for Dynamic Systems,” author list: P. Placek, W. Kohn, Z. B. Zabinsky, and J. Cross.

Invited presentation at the 2018 INFORMS International Conference, Taipei, Taiwan, June 2018, “Branch-and-bound Approach for Dynamic Resource Allocation in Population Disease Management,” author list: TingYu Ho, Shan Liu, and Z. B. Zabinsky.

Invited presentation at the 2018 INFORMS International Conference, Taipei, Taiwan, June 2018, “Implementing Quantile Adaptive Search for Global Optimization,” author list: David D. Linz, and Z. B. Zabinsky.

Invited presentation at the University of Southern California, L.A., CA, Jan 2018.

Presentation at the INFORMS 2017 Annual Conference, Houston, Texas, October 2017, “Optimal Middle Mile Transportation with Load Cancellation and Pick-up and Delivery Time Windows,” author list: Larissa P. G. Petroianu, Maricio Resende, and Z. B. Zabinsky.

Invited presentation at the INFORMS 2017 Annual Conference, Houston, Texas, October 2017, “Martingale Search Algorithms for Simulation Optimization,” author list: S. Kiatsupaibul, R. L. Smith and Z. B. Zabinsky.

Invited presentation at the INFORMS 2017 Annual Conference, Houston, Texas, October 2017, “Sampling within Adaptive Level Set Approximations for Blackbox Global Optimization,” author list: D. Linz and Z. B. Zabinsky.

Invited presentation at the INFORMS 2017 Annual Conference, Houston, Texas, October 2017, “Using a Branch-and-Bound Scheme with Multi-Fidelity Models to Optimize Hepatitis C Screening and Treatment Policies under a Budget Constraint,” author list: T. Ho, Z. B. Zabinsky, and S. Liu.

Poster presentation at Arizona State University (ASU), September 2017, “Stochastic Optimization to Minimize Energy Cost of Water Distribution Network,” author list: Yi-An Tsai, Giulia Pedrielli and Zeld B. Zabinsky.

Presentation at the Smart Cities Connect Conference & Expo, Austin, Texas, June 26-28, 2017, “Rule Based Real-time Edge Control,” author list: W. Kohn and Z. B. Zabinsky.

Invited presentation at Institute of Disease Modeling (IDM) Symposium, Bellevue WA, April 18-20, 2017, "Global Optimization in Healthcare Systems."

Invited presentation at the INFORMS International Conference, Hawaii, June 2016, "Optimal Screening and Treatment Allocation Strategy for Hepatitis C by Simulation Optimization," author list: H. Huang, Y. Li, Z. B. Zabinsky, and S. Liu.

Invited presentation at the INFORMS International Conference, Hawaii, June 2016, "Stackelberg Game Application for Cost-sharing Design in Healthcare Insurance," author list: T. Ho, P. Fishman, and Z. B. Zabinsky.

Presented at the 13th Annual CubeSat Developer's Workshop, April 20-22, 2016, San Luis Obispo, CA, "Online Resource Allocation and Scheduling for Store-and-Forward Communications with Priority Levels in Nanosatellite Systems," author list: Wakayama, C. Y., Yoo, P. J., and Zabinsky, Z. B.

Four invited presentations at Chulalongkorn University, Thailand, Jan-Feb 2016.

Invited presentation at National University of Singapore (NUS), Singapore, Jan 2016.

Invited presentation in the Bernie Sarchet Seminar Series at Missouri University of Science and Technology, Rolla MO, November 2015.

Invited presentation at the INFORMS Annual Conference, Philadelphia, PA, November 2015, "Optimal Adjusted Panel Size for Balancing Patient and Physician Risk," author list: D. Linz, H. Huang, P. Fishman, J. A. Heim, and Z. B. Zabinsky.

Invited presentation at the INFORMS Annual Conference, Philadelphia, PA, November 2015, "A Set Approach to Simulation Optimization with Probabilistic Branch and Bound," author list: H. Huang, and Z. B. Zabinsky.

Invited presentation at the INFORMS Annual Conference, Philadelphia, PA, November 2015, "Optimizing Hepatitis C Screening and Treatment Allocation Strategy," author list: Yuankun Li, Hao Huang, Zeld B. Zabinsky, Shan Liu.

Invited presentation at the 22nd International Symposium on Mathematical Programming (ISMP), Pittsburgh, PA, July 2015, "Tomograph Algorithms for Real-time Generation of Optimal Hybrid Control Models," author list: W. Kohn and Z. B. Zabinsky.

Invited presentation at the 22nd International Symposium on Mathematical Programming (ISMP), Pittsburgh, PA, July 2015, "Near Optimal Hamiltonian Feedback Control via Chattering," author list: P. Kumar, W., Kohn, and Z. B. Zabinsky.

Invited presentation (*with extended abstract*) at the INFORMS Healthcare Conference, Nashville, TN, July 2015, “Simulation Optimization for Medical Imaging Resources Allocation,” author list: H. Huang, Z. B. Zabinsky, J. A. Heim, and P. Fishman.

Invited presentation (*with extended abstract*) at the INFORMS Healthcare Conference, Nashville, TN, July 2015, “Optimal Staffing of Patient Centered Medical Homes under Highly Variable Demand,” author list: D. Linz, Z. B. Zabinsky, J. A. Heim, and P. Fishman.

Invited presentation (*with extended abstract*) at the INFORMS Healthcare Conference, Nashville, TN, July 2015, “Bringing Industrial and Systems Engineering Methods into Healthcare Practice: Barriers and Challenges,” author list: J. A. Heim, Z. B. Zabinsky, and P. Fishman.

Invited presentation at the INFORMS Healthcare Conference, Nashville, TN, July 2015, “What are the Challenges to using Industrial Systems Engineering to Improve American Health Care?” author list: P. Fishman, J. A. Heim, and Z. B. Zabinsky.

Poster presentation at the Machine Learning and Data Science Conference, Microsoft, Redmond, WA, May 28-29, 2015, “Microsoft Scalable Rule-based Demand Forecaster with Real-time Data,” author list: R. Nanda, W. Kohn, Z. B. Zabinsky, and Y. Shen.

Two invited presentations at Shanghai Jiao Tong University, China, May 2015.

Invited presentation at the 2015 Electric Power Conference (*and proceedings in Power Magazine*), Rosemont IL, April 21-23, 2015, “Rule-based real-time control of distributed power systems,” author list: Kohn, W., and Zabinsky, Z. B.

Invited speaker at the one-day workshop titled “Engineering Optimal Health Care Scheduling” sponsored by the Institute of Medicine’s (IOM’s) Committee on Optimizing Scheduling in Health Care, November 2014.

Invited presentation at the INFORMS Annual Conference, San Francisco, CA, November 2014, “Solving Global Optimization Problems Via Stochastic Inclusion Sets,” author list: W. Kohn and Z. B. Zabinsky

Invited presentation at the INFORMS Annual Conference, San Francisco, CA, November 2014, “A Stochastic Meta-control Bang-bang Solver for a Large Binary Integer Program,” author list: P. Zhang, W. Kohn and Z. B. Zabinsky.

Invited presentation at the INFORMS Annual Conference, San Francisco, CA, November 2014, “A Cloud-Based Fast Marching Algorithm for Global Optimization,” author list: P. Placek, W. Kohn and Z. B. Zabinsky.

Invited presentation at the INFORMS Annual Conference, San Francisco, CA, November 2014, "Patient Transitions Across Health Care Services: A Framework for Accountable Care Organizations," author list: Z. B. Zabinsky, P. Fishman and J. A. Heim.

Panelist at the INFORMS New Faculty Colloquium, at the INFORMS Annual Conference, San Francisco, CA, November 2014, "Time Management and Work-Life Balance."

Invited presentation at the Health Systems Optimization Workshop, Chicago, IL, September 2014, "Impact of Virtual Encounters on Overall Health Care Use in a Patient Centered Medical Home" author list: Z. B. Zabinsky, P. Fishman, J. A. Heim.

Presented at the 82nd MORS (Military Operations Research Society) Symposium, 4-6 June 2014 for Virtual Sessions and 16-19 June 2014 in person, Alexandria Virginia, "Ping Control and Scheduling for Distributed Monostatic Active Sonar Systems in Convergence Zone Environments," author list: Wakayama, C., and Zabinsky, Z. B.

Invited presentation at the 2014 Electric Power Conference, New Orleans, LA, April 1-3, 2014, "A Micro-grid Distributed Intelligent Control and Management System," author list: Kohn, W., Zabinsky, Z. B., and Sandoval, M.

Poster presentation at the UW Data Science Poster and Networking Session, Seattle, WA, February 7, 2014, "Microsoft Scalable Rule-based Optimal Inventory and Assortment Planning with Real-time Data," author list: Wolf Kohn and Zelda B. Zabinsky.

Presentation at the INFORMS Annual Conference, Minneapolis, MN, October 2013, "An Optimization Algorithm for Multi-trip Multi-shift Vehicle Routing Problems," author list: S. Zangeneh-Khamooshi, Z. B. Zabinsky, J. A. Heim, and X. Cao.

Keynote speaker in the Third World Congress on Global Optimization (WCGO-III), Huangshan (Yellow Mountain), China, July 2013.

Invited presentation in Symposium on Stochastic Optimization, held in conjunction with WCGO-III, in Huangshan (Yellow Mountain), China, July 2013, author list: Seksan Kiatsupaibul, Robert L. Smith, Zelda B. Zabinsky

Invited presentation in a Workshop on Health Systems Analytics and Medical Informatics, Chulalongkorn University, Bangkok, Thailand, July 2013.

Invited presentation at Chulalongkorn University, Bangkok, Thailand, July 2013.

Invited presentation at Beijing University (PKU), Beijing, China, July 2013.

Invited presentation at the INFORMS 2nd Conference on Healthcare conference, June 23-26, 2013, Chicago, IL, "Designing Patient Centered Health Care: A Comparative Systems Approach," author list: P. Fishman, J. A. Heim, and Z. B. Zabinsky

Invited presentation at the West Coast Optimization Meeting: Spring 2013, Seattle, WA, May 2013.

Invited presentation at Cornell University, Ithaca, NY, April 2013.

Invited presentation at University of Illinois, Urbana-Champaign, IL, November 2012.

Invited session at the INFORMS Conference, Phoenix, Arizona, October 2012, "Stochastic Control Optimization of a Binary Integer Program," author list: Z. B. Zabinsky, W. Kohn, and P. Zhang.

Invited session at the International Symposium on Mathematical Programming (ISMP) Berlin, Germany, August 2012, "Stochastic Control Optimization of a Binary Integer Program," author list: P. Zhang, W. Kohn, and Z. B. Zabinsky.

Invited session at the International Symposium on Mathematical Programming (ISMP) Berlin, Germany, August 2012, "Solving Non-linear Discrete Optimization Problems via Continualization: An Interior-Point Algorithm," author list: Z. B. Zabinsky and W. Kohn.

Invited session at the International Symposium on Mathematical Programming (ISMP) Berlin, Germany, August 2012, "Hybrid Dynamic Programming for Rule Constrained Multi-objective Optimization," author list: W. Kohn, and Z. B. Zabinsky.

Poster presentation at the 2012 AACC (American Association of Clinical Chemistry) Annual Meeting, Los Angeles, July 2012, "A Web-based Route Planning Tool for Transporting Laboratory Specimens," author list: Shabnam Zangeneh-Kharmooshi, Lei Stones Chen, Carol Maeso, Joseph A. Heim, Zelda B. Zabinsky, Alicia Edwards, Mark H. Wener, Michael L. Astion, and Daniel D. Bankson.
** Awarded one of the National Academy of Clinical Biochemistry NACB's Distinguished Abstract Awards. "Your abstract was one of 32 (out of 888 accepted for the 2012 AACC Annual Meeting) selected for scientific excellence by a panel of NACB Fellows." **

Presentation at the Industrial and Systems Engineering Conference, Florida, May 2012, "Simulation-based Resource Planning for In-house Delivery of Employee Health Care Services," author list: H. Huang, J. A. Heim, Z. B. Zabinsky, S. Zangeneh-Kharmooshi, M. Wellner, M. Astion, D. Cruz, J. Vincent, and R. Jack.

Invited presentation at University of South Florida, April 2012.

Sponsored session at the INFORMS Conference, Charlotte, North Carolina, November 2011, “Stochastic Decomposition for Large-scale Linear Quadratic Tracking (LQT) Problems,” author list: P. Zhang, W. Kohn, and Z. B. Zabinsky.

Invited presentations at Northwestern, Chicago IL, and SPAWAR, San Diego CA, April and May 2011.

Invited presentation at the Society for Risk Analysis (SRA) 2010 Annual Meeting, Salt Lake City, Utah, Dec. 6-9, 2010, “Rule-based Methods for Infrastructure Risk Analysis,” author list: D. A. Reed, Z. B. Zabinsky, and L. N. Boyle.

Invited session at the INFORMS Conference, Austin Texas, November 2010, “Interacting Multi-criteria Annealing Algorithm,” author list: H. O. Mete, and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Austin Texas, November 2010, “Probabilistic Branch-and-Bound for Noisy Objective Functions,” author list: W. Wang, Z. B. Zabinsky, and A. Ghate.

Invited session at the INFORMS Conference, Austin Texas, November 2010, “A Decision Making Model for Reverse Logistics Using Chance Constrained Programming,” author list: T. J. Barker, and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Austin Texas, November 2010, “Rule-based Multi-criteria Optimization for Hospital Evacuation,” author list: H. O. Mete, and Z. B. Zabinsky.

Invited speaker at the International Conference on Optimization, Simulation and Control, Ulaanbaatar, Mongolia, July 25-28, 2010, “An Interacting Particle Algorithm for Multi-Criteria Global Optimization,” author list: Z. B. Zabinsky.

Invited presentations at Tsinghua University, Beijing, Beijing Jiaotong University, Beijing, Southwest Jiaotong University, Chengdu, and Intel Corporation, Chengdu, China, July 2010.

Presentation at the Institute of Industrial Engineers (IIE) Applied Solutions Conference 2010, June 5-9, 2010, Cancun, Mexico, “Reverse Logistics: Designing Your Supply Chain for Product Recovery,” author list: T. J. Barker, and Z. B. Zabinsky.

Invited speaker at the Workshop on Simulation Optimization, sponsored by NSF and the Robert H. Smith School of Business, University of Maryland, College Park, Maryland, May 24-25, 2010, “Some Theory Behind Algorithms for Stochastic Optimization,” author list: Z. B. Zabinsky.

- Presentation at the INFORMS Conference, San Diego, CA, October 2009, “Pattern Discrete and Mixed Hit-and-Run for Global Optimization and Mixed Integer Programming,” author list: H. O. Mete and Z. B. Zabinsky.
- Invited session at the 20th International Symposium on Mathematical Programming, Chicago, August 2009, “Meta-control Approach to Large-scale Binary Integer Programs,” author list: Z. B. Zabinsky, W. Kohn, K. M. von Haartman.
- Invited session at the 20th International Symposium on Mathematical Programming, Chicago, August 2009, “Optimization of Dynamic Rule-based Systems,” author list: W. Kohn, H. Liu, and Z. B. Zabinsky.
- Invited speaker at the First World Congress on Global Optimization in Engineering & Sciences (WCGO 2009), Changsha and Zhangjiajie, China, June 1-5, 2009, “Adaptive Random Search Algorithms with Hit-and-Run,” author list: Z. B. Zabinsky.
- Presentation in the IIE Applied Solutions Conference, Miami, FL, May 2009, “Use of OR to Design Your Reverse Logistics Supply Chain,” author list: T. J. Barker, and Z. B. Zabinsky.
- Student presentation in the West Coast Optimization Meeting, Seattle, Washington, May 2009, “Adaptive Parameterized Improving Hit-and-Run for Global Optimization,” author list: W. Wang, A. Ghate, and Z. B. Zabinsky.
- Student presentation in the West Coast Optimization Meeting, Seattle, Washington, May 2009, “Pattern Discrete and Mixed Hit-and-Run for Global Optimization and Mixed Integer Programming,” author list: H. O. Mete, and Z. B. Zabinsky.
- Invited session at the INFORMS Western Regional Conference, Arizona State University, Tempe AZ, April 2009, “Reducing Environmental Impact: a Conceptual Framework for Reverse Logistics Supply Chain Design,” author list: T. J. Barker and Z. B. Zabinsky.
- One invited seminar at University of Maryland, College Park, MD, October 2008.
- Invited session at the INFORMS Conference, Washington D.C., October 2008, “Adaptive Parameterized Improving Hit-and-Run for Global Optimization,” author list: W. Wang, A. Ghate, and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Washington D.C., October 2008, “Discrete Hit-and-Run for Sampling from Arbitrary Subsets of Integer Hyper-rectangles,” author list: A. Ghate, R. L. Smith and Z. B. Zabinsky.

Presentation at the INFORMS Conference, Washington D.C., October 2008, “A Global Optimization Approach to Rule-Based Systems,” author list: H. O. Mete and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Washington D.C., October 2008, “Reverse Logistics: Three New Case Studies and a Decision Making Framework,” author list: T. J. Barker and Z. B. Zabinsky.

Two invited seminars at University of Iowa, Iowa City, IA, September 2008.

One invited seminar at Iowa State University, Ames, IA, September 2008.

Presentation at the IFORS Conference, Johannesburg, South Africa, July 2008, “Continuous and Discrete Global Optimization Using Hit-and-Run,” author list: Z. B. Zabinsky.

Invited presentation at the International Workshop on Stochastic and Applied Global Optimization (SAGO), Skukuza, South Africa, July 2008, “Stochastic Global Optimization Using Discrete and Mixed Hit-and-Run,” author list: Z. B. Zabinsky.

Poster presentation (by G. Wood) at the 16th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB), Toronto, July 2008, “The reliability of co-translational protein syntheses,” author list: Jonathan Ellis, David Fisher, Zeld Zabinsky, Graham Wood.

One invited seminar at Tsinghua University, Beijing, China, May 2008.

One invited seminar at Macquarie University, Sydney, Australia, April 2008.

Three invited seminars at Chulalongkorn University, Bangkok, Thailand, January 2008.

Invited session at the INFORMS Conference, Seattle WA, November 2007, “Analytical Bounds on Parameterized Improving Hit-and-Run for Adaptive Performance Enhancements,” author list: W. Wang, A. Ghate, and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Seattle WA, November 2007, “Optimization with Uncertainties for the Location and Allocation of Medical Supplies in an Emergency,” author list: H. O. Mete and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Seattle WA, November 2007, “Addressing Risk in a Supplier Selection Problem,” author list: L. Li and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Seattle WA, November 2007, “Quantum Dynamic Programming Using Hybrid Automata,” author list: W. Kohn and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Seattle WA, November 2007, “Rule-based Supply Chain Forecasting and Control,” author list: H. Liu, Z. B. Zabinsky, and W. Kohn.

Invited session at the INFORMS Conference, Seattle WA, November 2007, “Continualized Approximation Method for Binary Integer Programming,” author list: K. von Haartman, W. Kohn, and Z. B. Zabinsky.

Poster presentation at the 2007 HMC (Harvey Mudd College) Mathematics Conference on Public Sector Operations Research, Claremont, CA, September 2007, “Optimization with uncertainties for the location and allocation of medical supplies in an emergency situation,” author list: H. O. Mete and Z. B. Zabinsky.

Invited presentation at the “Advances in Global Optimization: Methods and Applications Workshop,” Myconos, Greece, June 13-17, 2007, “The interacting-particle algorithm with dynamic heating and cooling,” author list: O. Molvalioglu, Z. B. Zabinsky, and W. Kohn.

Poster presentation at the 2007 Nanoelectronic Devices for Defense & Security (NANO-DDS) Conference, Arlington, VA, June 2007, “Non-Demolition Quantum Phase-Locked Loops for Phase-Coherent Light-Harvesting,” author list: Cherry Wakayama, Wolf Kohn, Z. B. Zabinsky, and Richard Shi.

Invited presentation at 2007 Industrial Engineering Research Conference (IERC), Nashville, TN, May 2007, “Review and Extensions for Multistate Network Reliability,” author list: T. J. Barker, K. C. Kapur, and Z. B. Zabinsky.

Invited to give a presentation in the Optimization Seminar series, Math Department at the University of Washington, Seattle, Washington, April 2007, “Interacting-Particle Algorithm with Meta-control of Temperature,” author list: O. Molvalioglu, Z. B. Zabinsky, and W. Kohn.

Poster presentation at the Annual University Network Summit on Research and Education, by the Department of Homeland Security (DHS) Centers of Excellence Program of the Science and Technology (S&T) Directorate, Washington, D. C., March 14-15, 2007, “Optimization with uncertainties for the location and allocation of medical supplies in an emergency situation,” author list: H. O. Mete and Z. B. Zabinsky.

Invited session at the INFORMS Conference, Pittsburgh, PA, November 2006, “Quantum Control of Multi-particle Simulated Annealing,” author list: O. Molvalioglu, Z. B. Zabinsky, and W. Kohn.

Invited session at the INFORMS Conference, Pittsburgh, PA, November 2006, “Incorporating Uncertainty into an Optimal Selection of Suppliers and Ordering Plan,” author list: L. Lei and Z. B. Zabinsky.

Panelist at the INFORMS Future Academician Doctoral Colloquium, Pittsburgh, PA, November 2006, “Funding Your Research.”

Invited session at the EURO XXI Conference in Iceland, 21st European Conference on Operational Research, Reykjavik, Iceland, July 2006, “Annealing Adaptive Search with Discrete Hit-and-Run for Global Optimization,” author list: Z. B. Zabinsky and Y. Shen.

Invited session at the EURO XXI Conference in Iceland, 21st European Conference on Operational Research, Reykjavik, Iceland, July 2006, “Probabilistic Branch and Bound for Noisy Nonconvex Objective Functions,” author list: Z. B. Zabinsky and Y. Prasetio.

Invited to present in University of Washington’s 16th Annual Math Day for High School Students, Seattle WA, March 20, 2006, “Applications of Optimization,” author list: Zelda Zabinsky

Invited session at the INFORMS Conference, San Francisco, CA, November 2005, “Multi-particle Simulated Annealing,” author list: O. Molvalioglu, and Z. B. Zabinsky.

Panelist at the INFORMS Conference, San Francisco, CA, November 2005, “The Academic Job Search.”

Invited to present in the Complementarity, Duality and Global Optimization (CDGO) Meeting, Virginia Tech, Blacksburg VA, August 2005, “Optimization of Algorithmic Parameters using a Meta-Control Approach,” author list: W. Kohn, Z.B. Zabinsky and V. Brayman.

Invited to present in the Complementarity, Duality and Global Optimization (CDGO) Meeting, Virginia Tech, Blacksburg VA, August 2005, “Annealing Adaptive Search with Hit-and-Run Sampling Methods for Global Optimization,” author list: Y. Shen, and Z. B. Zabinsky.

Invited to present in the West Coast Optimization Meeting, Seattle, Washington, April 2005, “Annealing Adaptive Search with Hit-and-Run Sampling Methods for Global Optimization,” author list: Y. Shen, and Z. B. Zabinsky.

Invited to present in University of Washington’s 15th Annual Math Day for High School Students, Seattle WA, March 21, 2005, “Applications of Optimization,” author list: Zelda Zabinsky

- Invited to give a seminar at the Ming Hsin University of Science and Technology (MUST), HsinFeng, Taiwan, December 2004, “A Stochastic Programming Approach to Optimization under Uncertainty,” author list: Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Denver, CO, October 2004, “A Probabilistic Branch-and-bound Scheme for Simulation Optimization,” author list: Y. Prasetio, J. W. Yen, and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Denver, CO, October 2004, “Stopping Strategy for Multistart Stochastic Global Optimization Algorithms on Lipschitz Problems,” author list: C. Khompatraporn and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Denver, CO, October 2004, “Implementing Annealing Adaptive Search for Global Optimization Using Hit-and-Run Sampler,” author list: Y. Shen and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Denver, CO, October 2004, “Airport Acceptance Rate Allocation for Miles-in-Trail Decisions,” author list: O. Molvalioglu, J. W. Yen, Z. B. Zabinsky, M. E. Berge, and C. A. Hopperstad.
- Invited session at the INFORMS Conference, Denver, CO, October 2004, “Analysis of Demand Uncertainty in Multi-Level Production Control,” author list: B. Toktas, Z. B. Zabinsky, and M. Spearman.
- Panelist at the INFORMS Conference, Denver, CO, October 2004, “The Academic Job Search.”
- Invited to give a seminar at Texas A&M University, College Station, TX, March 2004, “A Stochastic Programming Approach to Incorporating Weather Uncertainty into Air Traffic Flow Management,” author list: Z. B. Zabinsky.
- Presentation at the Winter Simulation Conference 2003, New Orleans, LA, December 2003, “Simulation-Based Optimization for Complex Stochastic Systems,” author list: Y. M. Prasetio, Z. B. Zabinsky, and J. W. Yen.
- Invited session at the INFORMS Conference, Atlanta, GA, October 2003, “Development of Stopping Criterion for Stochastic Global Optimization,” author list: C. Khompatraporn and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Atlanta, GA, October 2003, “Annealing Adaptive Search: Theoretical and Computational Studies,” author list: Y. Shen and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Atlanta, GA, October 2003, “A Stochastic Programming Approach to the Schedule Recovery Problem under Weather

Uncertainty,” author list: B. Toktas, J. W. Yen, Z. B. Zabinsky, M. E. Berge, and C. A. Hopperstad.

Invited session at the INFORMS Conference, Atlanta, GA, October 2003, “A Stochastic Programming Approach to GAP with Forecasted Resource Capacities,” author list: B. Toktas, J. W. Yen, and Z. B. Zabinsky.

Organizer and Panelist at the INFORMS Conference, Atlanta, GA, October 2003, “The Academic Job Search,” and “The Industry Job Search.”

Presentation at the Joint Meeting of the Austrian Mathematical Society with the Italian Societies SIMAI and UMI, Bolzano Italy, September 2003, “A Stochastic Algorithm for Global Optimization,” author list: M. Dür, and Z. B. Zabinsky.

Invited Session at 2003 International Symposium on Mathematical Programming, Copenhagen, Denmark, August 2003, “A Stochastic Programming Approach to the Generalized Assignment Problem with Forecasted Resource Capacities,” author list: B. Toktas, J. W. Yen, Z. B. Zabinsky.

Presentation at 2003 International Symposium on Mathematical Programming, Copenhagen, Denmark, August 2003, “Solving Fractional Programs with Stochastic Algorithms,” author list: M. Dür, and Z. B. Zabinsky.

Presentation at 2003 EURO/INFORMS Joint International Conference, Istanbul, Turkey, July 2003, “A Stochastic Programming Approach to the Generalized Assignment Problem with Forecasted Resource Capacities,” author list: B. Toktas, J. W. Yen, Z. B. Zabinsky.

Presentation at CORS/SCRO (45th Annual Conference of the Canadian Operational Research Society, Vancouver, BC, June 2003, “Solving Fractional Programs with Stochastic Algorithms,” author list: M. Dür, and Z. B. Zabinsky.

Presentation at the FAA-NEXTOR-INFORMS Conference on Air Traffic Management and Controls, Falls Church, VA, June 2003, “Incorporating Weather Uncertainty in Airport Arrival Rate Decisions,” author list: J. W. Yen, Z. B. Zabinsky, Catherine Servé.

Presentation and paper at the 2003 Industrial Engineering Research Conference (IERC), Portland, OR, May 2003, “Optimal Flows in Supply Chains with Numerical Examples,” author list: V. Brayman, Z. B. Zabinsky, and J. A. Ritcey.

Presentation and paper at the 2003 Industrial Engineering Research Conference (IERC), Portland, OR, May 2003, “Stopping Criterion using Cost Functions for Stochastic Global Optimization Algorithms,” author list: C. Khompatraporn and Z. B. Zabinsky.

- Presentation and paper at the 2003 Industrial Engineering Research Conference (IERC), Portland, OR, May 2003, "Optimization of Simulated Complex Stochastic Systems," author list: Y. M. Prasetio, Z. B. Zabinsky, and J. W. Yen.
- Presentation and paper at the 2003 Industrial Engineering Research Conference (IERC), Portland, OR, May 2003, "Incorporating Forecasted Resource Capacities in a Family of Generalized Assignment Problems," author list: B. Toktas, J. W. Yen, Z. B. Zabinsky, M. E. Berge, and C. A. Hopperstad.
- Invited session at the INFORMS Conference, San Jose, CA, November 2002, "Discrete Hit-and-Run Algorithms: Theoretical and Computational Studies," author list: Y. Shen, Z. B. Zabinsky, and R. L. Smith.
- Contributed session at the INFORMS Conference, San Jose, CA, November 2002, "A Parametric Analysis of Air Traffic Flow Control with Weather Uncertainty," author list: L. Grignon, A. Haraldsdottir, J. W. Yen, and Z. B. Zabinsky.
- Panelist at the INFORMS Conference, San Jose, CA, November 2002, "The Academic Job Search for Ph.D. Students," chaired by Russell Meller.
- Invited to give a seminar at the University of Florida, Gainesville, FL, March 2002, "Adaptive Stochastic Search Methods for Global Optimization," author list: Z. B. Zabinsky.
- Invited to give a seminar at Texas A&M University, College Station, TX, February 2002, "Adaptive Stochastic Search Methods for Global Optimization," author list: Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Miami, FL, November 2001, "Random search with interval bounds for global optimization," author list: B. P. Kristinsdottir and Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Miami, FL, November 2001, "An Integer Linear Programming Model for Production and Delivery Planning in Supply Chain Systems," author list: S. Supsomboon, Z. B. Zabinsky, and B. M. Beamon.
- Tutorial session at the INFORMS Conference, Miami, FL, November 2001, "Introduction to Analyses of Adaptive Stochastic Search Methods for Global Optimization," author list: Z. B. Zabinsky.
- Panelist at the INFORMS Conference, Miami, FL, November 2001, "The Academic Job Search for Ph.D. Students," chaired by Russell Meller.
- Co-organizer and leader of discussion group for Stochastic Global Optimization Workshop, New Zealand, June 2001. Presented "Comparative Assessment of

Algorithms and Software for Global Optimization,” author list: C. Khompatraporn, Z. B. Zabinsky, and J. Pinter.

Invited session at the International INFORMS Conference, Hawaii, June 2001, “Decentralized Dual-Based Algorithm for Computing Optimal Flows in a General Supply Chain,” author list: V. Brayman, Z. B. Zabinsky, and W. Kohn.

Invited session at the INFORMS Conference, San Antonio, TX, November 2000, “Interaction between generator and acceptance probability for random search algorithms,” author list: B. P. Kristinsdottir, Z. B. Zabinsky.

Invited session at the INFORMS Conference, San Antonio, TX, November 2000, “Convergence and landscape,” author list: W. Baritomp, Z. B. Zabinsky.

Chair for invited session at the INFORMS Conference, San Antonio, TX, November 2000, “Dantzig Dissertation Award Finalist Presentations,” finalists: Shabbir Ahmed, Vinayak Deshpande, Prashant Fuloria, Terry Taylor, and Kirk Yost.

Panelist at the INFORMS Conference, San Antonio, TX, November 2000, “The Academic Job Search for Ph.D. Students,” chaired by Russell Meller.

Invited to present in the West Coast Optimization Meeting, Seattle, Washington, October 2000, “Optimization applications to industrial problems,” author list: Z.B. Zabinsky.

Presented a poster in the SIAM Northwest Regional Mathematics in Industry Workshop, Seattle, WA, October 12-14, 2000, “An Optimization Based Decision Tool for Bi-Criteria Allocation of Jobs to Unrelated Parallel Machines,” author list: Z. B. Zabinsky, D. Flenbaugh, J. Littleton, J. Temple.

Invited session at the 17th International Symposium on Mathematical Programming, Atlanta, GA, August 2000, “Estimating black box functions with upper and lower bounds,” author list: Z. B. Zabinsky, R. L. Smith, and B. P. Kristinsdottir.

Invited session at the 17th International Symposium on Mathematical Programming, Atlanta, GA, August 2000, “A general purpose simulated annealing algorithm for integer linear programming,” author list: S. Kiatsupaibul, R. L. Smith, and Z. B. Zabinsky.

Lecture in the ME/IE 518 UW Televised Seminar Series on Advances in Manufacturing and Management, “Optimal Design of Manufacturable Composite Structures,” University of Washington, April 2000, author list: Z. B. Zabinsky.

Invited lecture at the University of Puget Sound, “Stochastic Methods for Practical Global Optimization,” Tacoma, Washington, March 2000, author list: Z. B. Zabinsky.

- Invited lecture at the PACCAR Technical Institute, “Optimal Design of Manufacturable Composite Structures,” Bellevue, Washington, November 1999, author list: Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Philadelphia, PA, November 1999, “An Approach to Parallelize Global Optimization,” author list: W. Luo, Z. B. Zabinsky, M. E. Tuttle.
- Tutorial session at the INFORMS Conference, Philadelphia, PA, November 1999, “Stochastic Methods for Practical Global Optimization,” author list: Z. B. Zabinsky.
- International Workshop on Global Optimization, Firenze Italy, September 28 – October 2, 1999, “Theoretical and Computational Insight into Parallel Global Optimization using Random Search,” author list: Z. B. Zabinsky.
- Invited lecture at the PACCAR Technical Institute, “Optimal Design of Manufacturable Composite Structures,” Bellevue, Washington, April 1999, author list: Z. B. Zabinsky.
- Invited session at the INFORMS Conference, Seattle, Washington, October 1998, “Optimization of Composite Beams,” author list: V. Savic, Z. B. Zabinsky, M. E. Tuttle.
- Invited session at the INFORMS Conference, Seattle, Washington, October 1998, “Simulated Annealing - analysis of accepting non-improving points,” author list: B. P. Kristinsdottir, Z. B. Zabinsky.
- Contributed session at the INFORMS Conference, Montreal, Canada, April 1998, “Hybrid Algorithm,” author list: B. P. Kristinsdottir, Z. B. Zabinsky.
- Invited seminar at University of Canterbury, Christchurch, New Zealand, April 1998, “Stochastic Methods for Practical Global Optimization,” author list: Z. B. Zabinsky
- Invited seminar at Northwestern University, Evanston IL, December 1997, “Stochastic Methods for Practical Global Optimization,” author list: Z. B. Zabinsky
- Invited seminar at Purdue University, West Lafayette IN, December 1997, “Stochastic Methods for Practical Global Optimization,” author list: Z. B. Zabinsky
- Invited session at the INFORMS Conference, Dallas, Texas, October 1997, “Linear Programming Approach to the Capital Rationing Problem in Transportation,” author list: Z. B. Zabinsky, D. Niemeier

Invited speaker at the Workshop on Global Optimization, University of Trier, Germany, August 1997, “Stochastic Methods for Practical Global Optimization,” author list: Z. B. Zabinsky.

Invited session at the 16th International Symposium on Mathematical Programming, Lausanne, Switzerland, August 1997, “Practical Global Optimization for Engineering Design,” author list: Z. B. Zabinsky, S. Neogi, and M. E. Tuttle.

Invited session at the 16th International Symposium on Mathematical Programming, Lausanne, Switzerland, August 1997, “Enhancements to IHR: Improving Hit and Run,” author list: Z. B. Zabinsky.

Invited session at the 16th International Symposium on Mathematical Programming, Lausanne, Switzerland, August 1997, “How Long Must We Wait?,” author list: G. R. Wood, Z. B. Zabinsky, B. P. Kristinsdottir.

Invited session at the 16th International Symposium on Mathematical Programming, Lausanne, Switzerland, August 1997, “Simulated Annealing for Mixed Integer/Continuous Global Optimization,” author list: H. E. Romeijn, Z. B. Zabinsky, D. L. Graesser, S. Neogi.

Invited session at the INFORMS Conference, Atlanta, Georgia, October 1996, “Complexity Comparisons of Random Search Algorithms in Global Optimization,” author list: B. P. Kristinsdottir, Z. B. Zabinsky.

Invited session at the INFORMS Conference, Atlanta, Georgia, October 1996, “Optimal Design of Composite Panels Using Simulated Annealing,” author list: S. Neogi, Z. B. Zabinsky, and M. E. Tuttle.

Contributed session at the INFORMS Conference, Atlanta, Georgia, October 1996, “An Optimization Approach to Oceanic Airspace Design,” author list: Z. B. Zabinsky, S. Thorarinsson, and A. Haraldsdottir.

Invited to give a seminar at Central Queensland University, Rockhampton, Australia, October 1996, “Industrial Problems and Mathematical Models,” author list: Z. B. Zabinsky.

Invited to give a seminar at Erasmus University, Rotterdam, Netherlands, December 1995, “Complexity Analysis Integrating Pure Adaptive Search (PAS) and Pure Random Search (PRS),” author list: Z. B. Zabinsky.

Invited speaker at the III. Workshop on Global Optimization, Szeged, Hungary, December 1995, “Complexity Analysis Integrating PAS, PRS, and Simulated Annealing,” author list: Z. B. Zabinsky and B. P. Kristinsdottir.

Invited to give a seminar at the University of Arizona, November 1994, "Using Global Optimization To Design Composite Structures," author list: Z. B. Zabinsky.

Invited session at the 15th International Symposium on Mathematical Programming, Ann Arbor, Michigan, August 1994, "Using Global Optimization to Design Composite Structures," author list: Z. B. Zabinsky.

Invited session at the 15th International Symposium on Mathematical Programming, Ann Arbor, Michigan, August 1994, "Sensitivity of Global Design Due to Manufacturing Tolerances," author list: B. P. Kristinsdottir, Z. B. Zabinsky, T. Csendes, and M. E. Tuttle.

Presented at the 15th International Symposium on Mathematical Programming, Ann Arbor, Michigan, August 1994, "Pure Adaptive Search for Finite Global Optimization," author list: Z. B. Zabinsky.

Invited session at ORSA/TIMS Conference, Phoenix, Arizona, October 1993, "Incorporating manufacturing tolerances in global optimization," author list: Z. B. Zabinsky, B. P. Kristinsdottir, M. E. Tuttle, D. L. Graesser, and G. I. Kim.

Invited to give seminars in New Zealand at the University of Canterbury, Christchurch NZ, in the Department of Mathematics, and in the Management Science Department; and at Massey University, Palmerston North, NZ, in the Department of Mathematics, April 1993, "Using Global Optimization To Design Composite Structures," author list: Z. B. Zabinsky.

Presented at the International Conference on Numerical Analysis with Automatic Result Verification (Mathematics, Applications, and Software), held in Lafayette, Louisiana, February 25-March 1, 1993, "Global optimal solutions with tolerances and practical composite laminate design," author list: B. P. Kristinsdottir, Z. B. Zabinsky, T. Csendes, and M. E. Tuttle.

Invited to present in the West Coast Optimization Seminar, Seattle, Washington, February 1993, "Using Global Optimization To Design Composite Structures," author list: Z. B. Zabinsky.

Presentation at the Symposium on Applied Mathematical Programming and Modeling (APMOD93) in Budapest, Hungary, January 6-8, 1993, "Constructing large feasible suboptimal intervals for constrained nonlinear optimization," author list: T. Csendes, Z. B. Zabinsky, B. P. Kristinsdottir.

Presented at the 5th NASA Advanced Composites Technology (ACT) Cost Modeling Workshop, Seattle, Washington, September 1992, "Advanced Blending Rules," author list: Z. B. Zabinsky, D. L. Graesser, G. I. Kim, and M. E. Tuttle.

Presented in a cluster on global optimization at EURO XII/TIMS XXXI Joint International Conference, Helsinki, Finland, June 1992, "Simulated Annealing For Mixed Integer/Continuous Global Optimization," author list: Z. B. Zabinsky, H. E. Romeijn, D. L. Graesser, and D. A. Heglund.

Invited to give a seminar at the University of Iceland, June 1992, "Using Global Optimization To Design Composite Structures," author list: Z. B. Zabinsky.

Invited session at TIMS/ORSA Conference, Orlando, Florida, April 1992, "Further Advances In The Global Optimization of Composite Structures," author list: Z. B. Zabinsky, D. L. Graesser, D. A. Heglund, G. I. Kim, and M. E. Tuttle.

Invited to give an AT&T Manufacturing Systems and Operations Research Seminar at the School of Industrial and Systems Engineering, Georgia Institute of Technology, April 1992, "Using Global Optimization To Design Composite Structures," author list: Z. B. Zabinsky.

Invited speaker to the international conference on Recent Advances in Global Optimization, held at Princeton University, May 1991, "Global Optimization of Composite Laminates Using Improving Hit and Run," author list: Z. B. Zabinsky, D. L. Graesser, M. E. Tuttle, and G. I. Kim.

Invited session at TIMS/ORSA Conference, Nashville, Tennessee, May 1991, "Applying Global Optimization to the Design of Composite Laminates," author list: Z. B. Zabinsky, M. E. Tuttle, D. L. Graesser, and G. I. Kim.

Presented at the 4th NASA Advanced Composites Technology (ACT) Cost Modeling Workshop, MIT, Cambridge, Massachusetts, October 1991, "COSTADE Software and Optimization," author list: Z. B. Zabinsky, D. L. Graesser, D. A. Heglund, G. I. Kim, and M. E. Tuttle.

Invited speaker at the II. Workshop on Global Optimization sponsored by IIASA in Sopron, Hungary, December 1990, "Improving Hit and Run for Global Optimization," author list: Z. B. Zabinsky, R. L. Smith, and J. F. McDonald.

Presented at the Boeing Advanced Technology Composites Aircraft Structures (ATCAS) Subcontractor's Review, Renton, July 10-11, 1990, "Optimal Design of Advanced Composite Structures," author list: Z. B. Zabinsky, and M. E. Tuttle.

Presented at TIMS/ORSA Conference, Las Vegas Nevada, May 1990, "Adaptive Random Search Procedures For Global Optimization," author list: Z. B. Zabinsky, and R. L. Smith.

Invited presentation to Department of Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI, March 1990, "Pure Adaptive Search in Global Optimization," author list: Z. B. Zabinsky.

Presented at the AIIE Puget Sound Chapter Meeting, Seattle, Washington, March 1988, “Minimum Cycle Time Manufacturing,” author list: Z. B. Zabinsky, and B. L. Chapman.

Presented at ORSA/TIMS Conference, Miami, Florida, October 1986, “A Non-Homogeneous Poisson Process Model of a Random Search Optimization Method,” author list: Z. B. Zabinsky, and R. L. Smith.

Invited speaker at the Global Optimization Workshop sponsored by IIASA in Sopron, Hungary, December 1985, “Complexity of a Pure Adaptive Search for Global Optimization,” author list: Z. B. Zabinsky, and R. L. Smith.

Invited session at ORSA/TIMS Conference, Dallas, Texas, November 1984, “Linear Performance of a Simple Adaptive Algorithm in Convex Programming,” author list: Z. B. Zabinsky, R. L. Smith, and N. Patel.

Presented at ORSA/TIMS Conference, San Diego, CA, October 1982, “Application of a Relational Data Management Information System to the Military Health Services System,” author list: J. Valentine, Z. B. Zabinsky, R. Domine, and W. White.

Chair or Co-Chair of Graduate Students' Committees

Master Students

<u>Name</u>	<u>Degree & Department</u>	<u>Graduation Date</u>
Michelle Song	M.S. Industrial Engineering “Optimization and Scheduling Methodologies to Enable Low Earth Orbit Nano-satellite Communication”	Summer 2018
Pablo Flores Audibert	M.S. Industrial Engineering “Exploring Methodology for the preliminary design of a system of integrated clinical laboratories”	Summer 2018
Ye (Roy) Yuan	M.S. Industrial Engineering “Exploring the Impact of Virtual Medicine on the Patient-Centered Medical Home”	Summer 2014
Shuainan (Penny) Hu	M.S. Industrial Engineering “Developing Domain-specific Simulation Objects for Modeling Clinical Laboratory Operations”	Summer 2014
Haraldur Hrannar Haraldsson	M.S. Industrial Engineering “Improving Efficiency in Allocating Pediatric Ambulatory Care Clinics”	Spring 2014

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|---|-------------------------------|-------------|
| Lei Chen | M.S. Industrial Engineering | Spring 2012 |
| “A Web-based System for Optimizing Post Disaster Temporary Housing Allocation” | | |
| Amazon | | |
| Cherry Wakayama | M.S. Electrical Engineering | Summer 2005 |
| “Congestion-Driven Three-Dimensional VLSI Placement Using Simulated Annealing” | | |
| SPAWAR Systems Center Pacific | | |
| Jana E. Littleton | M.S. Industrial Engineering | Spring 2005 |
| “An Optimal Control Approach to Solving Binary Integer Programs” | | |
| Lisa Grignon | M.S. Industrial Engineering | Autumn 2002 |
| “Analyses of Delay in an Air Traffic System with Weather Uncertainty” | | |
| Eva Hlin Dereksdottir | M.S. Industrial Engineering | Winter 2002 |
| “A Computational Study of Improving Hit-and-Run Algorithms on a Discrete Domain” | | |
| Damon Flenbaugh | M.S. Industrial Engineering | Summer 2000 |
| “An Optimization Based Decision Tool for Bi-Criteria Allocation of Jobs to Unrelated Parallel Machines” | | |
| Intel | | |
| Wen Luo | M.S. Industrial Engineering | Spring 1999 |
| “Global Optimization of Composite Structures Using Parallel Computing” | | |
| Liliana Alfaro | M.S. Industrial Engineering | Summer 1998 |
| “Evaluation of Scheduling Algorithms for Air Traffic Control” | | |
| Jeanne Suchodolski | M.S. Aeronautical Engineering | Spring 1998 |
| “Analysis of Oceanic Free Flight Operations” | | |
| Lap Chung Cheung | M.S. Industrial Engineering | Summer 1997 |
| “Optimal Scheduling Algorithms for Sequential and Concurrent Engineering Design Models” | | |
| Sigurdur Thorarinsson | M.S. Industrial Engineering | Summer 1996 |
| “An Optimization Approach to Oceanic Airspace Design” | | |
| Kathryn Eder-Staggs | M.S. Industrial Engineering | Spring 1996 |

“Development and Application of Optimization Models in Health Care and Manufacturing”

Joanna M. Bare “Tolerance Optimization”	M.S. Industrial Engineering	Summer 1995
Ivone Sasmitra “Empirical and Analytical Comparisons of Deepest Point with Stochastic Lipschitz Optimization”	M.S. Industrial Engineering	Winter 1995
Jeffrey D. Seifer “Incorporating Realistic Engineering Considerations into the Optimal Design of Composite Structures”	M.S. Mechanical Engineering	Winter 1995
Dao-liang Chou “The Development of a Multimedia-Based Educational Tool”	M.S. Mechanical Engineering	Autumn 1994
Birna P. Kristinsdottir “Methodology to Investigate Manufacturing Tolerances of Composite Structures” Alcan	M.S. Industrial Engineering	Spring 1993
Zhaohui Zeng “Optimal Selection of Projects in Transportation Planning” Professor and Assistant Dean, WPI	M.S. Industrial Engineering	Autumn 1992
Dean Heglund “Methodology for Efficient Random Search in the Optimization of Composite Laminate Design”	M.S. Industrial Engineering	Summer 1992
Kimberley Kacorowski “Feasibility and Economic Analysis of Automating Case Reports”	M.S. College of Engineering	Autumn 1991

Doctoral Students

<u>Name</u>	<u>Degree & Department</u>	<u>Graduation Date</u>
Larissa Petroianu Co-chair with Mauricio Resende	Ph.D. Industrial Engineering	passed qualifying exam
Ting-yu (Martin) Ho Co-chair with Shan Liu	Ph.D. Industrial Engineering	passed general exam
David Linz “Optimizing Population Healthcare Resource Allocation Under Uncertainty Using Global Optimization Methods”	Ph.D. Industrial Engineering	Summer 2018

- Orcun Molvalioglu Ph.D. Industrial Engineering Autumn 2007
 “Interacting-particle algorithm and meta-control of temperature parameters”
 T-Mobile
- Yanto M. Prasetio Ph.D. Industrial Engineering Autumn 2005
 Co-chair with Joyce Yen
 “Simulation-based Optimization for Complex Stochastic Systems”
 Financial institution in Indonesia
- Yanfang Shen Ph.D. Industrial Engineering Winter 2005
 “Annealing Adaptive Search with Hit-and-run Sampling Methods for Stochastic Global Optimization Algorithms”
 Microsoft
- Charoenchai Khompatraporn Ph.D. Industrial Engineering Autumn 2004
 “Analysis and Development of Stopping Criteria for Stochastic Global Optimization Algorithms”
 Professor and Chair, King Mongkut’s University, Bangkok, Thailand
- Berkin Toktas Ph.D. Industrial Engineering Winter 2004
 Co-chair with Joyce Yen
 “Addressing Capacity Uncertainty in Resource-Constrained Assignment Problems”
 Runner-up in the Dantzig Dissertation Award 2004
 Mobile phone company in Turkey
- Vladimir Brayman Ph.D. Electrical Engineering Spring 2003
 Co-chair with Jim Ritcey
 “Hierarchical Distributed Algorithm for Optimization of Flows and Prices in Logistics Distribution Networks”
 Webtrends, Inc.
- Srisawat Supsomboon Ph.D. Industrial Engineering Summer 2002
 Co-chair with Benita Beamon
 “Optimization Model for Production and Delivery Planning in JIT-Kanban Supply Chain Systems”
 Professor and Chair, King Mongkut’s University of Technology North Bangkok, Thailand
- Vesna Savic Ph.D. Mechanical Engineering Summer 2000
 Co-chair with Mark Tuttle
 “Design Optimization of Thin-Walled Composite Beams”
 General Motors
- Birna P. Kristinsdottir Ph.D. Mechanical Engineering Summer 1997

“Analysis and Development of Random Search Algorithms”
Alcan Corporation

Sudipto Neogi	Ph.D. Mechanical Engineering	Spring 1997
Co-chair with Mark Tuttle		
“Design of Large Composite Structures Using Global Optimization and Finite Elements”		
Intel Corporation		
Gun-In Kim	Ph.D. Mechanical Engineering	Autumn 1993
Co-chair with Mark Tuttle		
“Optimization of Stiffened Panels for Buckling Using A Simplified Linked Plate Method”		
Professor in Korea		
Douglas L. Graesser	Ph.D. Mechanical Engineering	Spring 1993
Co-chair with Mark Tuttle		
“Design of Laminated Composite Panels Optimized for Damage Tolerance”		
Principal Engineer at NSE Composites, Seattle		

Selected Bachelor Students after 2010 (Honors or Undergraduate Research Experience)

<u>Name</u>	<u>Degree & Department</u>	<u>Graduation Date</u>
Thanika (Nam) Painruttanasukho	B.S. Industrial Engineering and CSE	exp. Spring 2019
Poster presentation at the Annual UW Undergraduate Research Symposium, “Last Mile Humanitarian Aid Logistics in Africa,” May 2018. **Undergraduate Research Symposium Population Health Recognition Award**		
Elizabeth George	B.S. Industrial Engineering	Spring 2018
Poster presentation at the Annual UW Undergraduate Research Symposium, “Last Mile Humanitarian Aid Logistics in Africa,” May 2018. **Undergraduate Research Symposium Population Health Recognition Award**		
Benjamin Blumberg	B.S. Industrial Engineering and CSE	Spring 2015
Presented at the Annual UW Undergraduate Research Symposium, "An efficient optimization algorithm for multi-layer PCB bus escape routing," May 2014.		
Tatiana Shefts	B.S. Industrial Engineering	Spring 2013
A Mary Gates Research Scholar		

ORSA/TIMS Lanchester Prize
IEEE 31st Conference on Decision and Control
American Journal of Mathematical and Management Sciences

Consulting Activities

Consulting for Veritone, LLC, Costa Mesa, CA, 2018-present.

Consulting for Atigeo, Corporation, Bellevue, WA, 2012-2017.

Consulting for SPAWAR, San Diego, CA, 2011-2013.

Consulting for ClearSight Systems, Inc., Bellevue, WA, 2005-2006, 2011-2012.

Consulting for Hynomics, Kirkland, WA, 2002-2003.

Consulting for XYPoint, Seattle, WA, 2001.

Consulting for Microsoft, Seattle, WA, April - December 1997, January – June 1999,
June – August 2001.

Consulting for Hunt Wesson Inc., Davis, CA, 1997-1998.

Consulting for METRO, Seattle, WA, December 1992.

Consulting for CTW Research, Inc., President Jack Jacinto, Sept. 1990 - May 1991.

Consulting in Operations Research and Statistics for Numerical Methods, Inc., President
Robert Hunter, June 1989 - Sept. 1990.

Presented a short course to Boeing with Professor Brian Mar, entitled “System
Engineering Trade Studies and Decision Making Training,” August 1987.