

Curriculum Vitae

Joe Zhu

Department of Management
Worcester Polytechnic Institute
Worcester, MA 01609
Voice: (508) 831-5467
Fax: (508) 831-5720
email: jzhu@wpi.edu

Education

Ph.D., Industrial Engineering
University of Massachusetts at Amherst, 1998

M.S., Systems Engineering
Southeast University, China, 1992

Appointments

July 2003 – present, Associate Professor, Department of Management, WPI

July 1998 – June 2003, Assistant Professor, Department of Management, WPI

Visiting Appointments

May-June, 2007, Visiting research fellow, Graduate School of Information Science and Technology, Osaka University, Japan

2007, Visiting Associate Professor, Department of Industrial and Information Management, the National Cheng Kung University, Taiwan.

May-July, 2002, Japan Society for Promotion of Science (JSPS) Fellow, Graduate School of Information Science and Technology, Osaka University, Japan.

Publications in Refereed Journals¹

1. Zhu, Joe, and Z. Shen, A discussion of testing DMUs' returns to scale. **European Journal of Operational Research**, Vol. 81, Issue 3 (1995), 590-596.
2. Zhu, Joe, Data envelopment analysis with preference structure. **Journal of Operational Research Society**, Vol. 47, No.1 (1996), 136-150.
3. Zhu, Joe, Robustness of the efficient DMUs in data envelopment analysis. **European Journal of Operational Research**, Vol. 90, Issue 3 (1996), 451-460.
4. Zhu, Joe, DEA/AR analysis of the 1988-1989 performance of the Nanjing Textile Cooperation. **Annals of Operations Research**, Vol. 66, (1996), 311-335.
5. Seiford, L.M. and Zhu, Joe, An acceptance system decision rule with data envelopment analysis. **Computers and Operations Research**, Vol. 25, No. 4, (1998), 329-332.
6. Seiford, L.M. and Zhu, Joe, On piecewise loglinear and log efficiency measures. **Computers and Operations Research**, Vol. 25, No. 5, (1998), 389-395.
7. Ray, S., Seiford, L.M., and Zhu, Joe, Market entity behavior of Chinese state-owned enterprises. **OMEGA, International Journal of Management Science**, Vol. 26, No. 2 (1998), 263-278.
8. Seiford, L.M. and Zhu, Joe, Identifying excesses and deficits in Chinese industrial productivity (1953-1990): A weighted data envelopment analysis approach. **OMEGA, International Journal of Management Science**, Vol. 26, No. 2 (1998), 279-296.
9. Seiford, L.M. and Zhu, Joe, Stability regions for maintaining efficiency in data envelopment analysis. **European Journal of Operational Research**, Vol. 108, Issue. 1, (1998), 127-139.
10. Seiford, L.M. and Zhu, Joe, On alternative optimal solutions in the estimation of returns to scale in DEA. **European J. of Operational Research**, Vol. 108, No. 1, (1998) 149-152.
11. Zhu, Joe, Data envelopment analysis vs. principal component analysis: An illustrative study of economic performance of Chinese cities. **European Journal of Operational Research**, Vol. 111, Issue 1, (1998), 50-61.
12. Seiford, L.M. and Zhu, Joe, Sensitivity analysis of DEA models for simultaneous changes in all the data. **Journal of the Operational Research**

¹ The order of authors is alphabetical except for cases when a co-author's work will not be fully recognized by his/her funding agency or institution if he/she is not the first author.

- Society**, Vol. 49, No. 10 (1998), 1060-1071.
13. Seiford, L.M. and Zhu, Joe, An investigation of returns to scale under data envelopment analysis. **OMEGA, International Journal of Management Science**, Vol. 27, No. 1 (1999), 1-11.
 14. Seiford, L.M. and Zhu, Joe, Sensitivity and stability of the classification of returns to scale in data envelopment analysis. **Journal of Productivity Analysis**, Vol. 12, No. 1, (1999), 55-75.
 15. Seiford, L.M. and Zhu, Joe, Infeasibility of super efficiency data envelopment analysis models. **INFOR, Information Systems & Operational Research**, Vol. 37, No. 2, (May 1999), 174-187.
 16. Seiford, L.M. and Zhu, Joe, Profitability and marketability of the top 55 US commercial banks. **Management Science**, Vol. 45, No. 9 (September 1999), 1270-1288.
 17. Cooper, W.W., Seiford, L.M. and Zhu, Joe, A unified additive model approach for evaluating inefficiency and congestion with associated measures in DEA. **Socio-Economic Planning Sciences**, Vol. 34, Issue 1 (2000), 1-25.
 18. Zhu, Joe, Multi-factor performance measure model with an application to Fortune 500 companies. **European Journal of Operational Research**, Vol. 123, Issue 1, (2000), 105-124.
 19. Zhu, Joe, Setting scale efficient targets in DEA via returns to scale estimation method. **Journal of Operational Research Society**, Vol. 51, No. 3 (2000), 376-378.
 20. Zhu, Joe, Further discussion on DEA and linear production function. **European Journal of Operational Research**, Vol. 127, Issue 3 (2000), 611-618.
 21. Zhu, Joe, Super-efficiency and DEA sensitivity analysis. **European Journal of Operational Research**, Vol. 129, Issue 2 (2001), 443-455.
 22. Cooper, W.W., Li, S., Seiford, L.M., Thrall, R.M. and Zhu, Joe, Sensitivity and stability analysis in DEA: some recent developments, **Journal of Productivity Analysis**, Vol. 15, No. 3 (2001), 217-246.
 23. Wilkens, K. and Zhu, Joe, Portfolio evaluation and benchmark selection: A mathematical programming approach, **Journal of Alternative Investments**, Vol. 4, No. 1, Summer, (2001), 9-19.
 24. Cooper, W.W., Seiford, L.M., and Zhu, Joe, Slacks and congestion: response to a comment by R. Fare and S. Grosskopf, **Socio-Economic Planning Sciences**, Vol. 35, Issue 3 (2001), 205-215.
 25. Zhu, Joe, A multidimensional quality-of-life measure with an application to Fortune's best cities, **Socio-Economic Planning Sciences**, Vol. 35, Issue 4 (2001), 263-284.
 26. Seiford, L.M. and Zhu, Joe, Modeling undesirable factors in efficiency evaluation, **European Journal of Operational Research**, Vol. 142, Issue 1

- (2002), 16-20.
27. Li, S., Zhimin Huang, Zhu, Joe and Patrick Y. K. Chau, Cooperative advertising, game theory and manufacturer-retailer supply chains, **OMEGA**, Vol.30, Issue 5 (2002), 347-357.
 28. Seiford, L.M. and Zhu, Joe, Value judgment versus allocative efficiency: a case of Tennessee county jails, **Journal of Management Sciences & Regional Development**, Issue 4, July (2002), 89-98.
 29. Zhu, Joe, Imprecise data envelopment analysis (IDEA): A review and improvement with an application, **European Journal of Operational Research**, Vol. 144, Issue 3 (2003), 513-529.
 30. Zhu, Joe, Efficiency evaluation with strong ordinal input and output measures, **European Journal of Operational Research**, Vol. 146, Issue 3 (2003), 477-485.
 31. Johnson, S.A. and Zhu, Joe, Identifying top applicants in recruiting using data envelopment analysis, **Socio-Economic Planning Sciences**, Vol. 37, Issue 2 (2003), 125-139.
 32. Cook, W.D. and Zhu, Joe, Output deterioration with input reduction in data envelopment analysis, **IIE Transactions**, Vol. 35, No. 3, (2003), 309-320.
 33. Seiford, L.M. and Zhu, Joe, Context-dependent data envelopment analysis: measuring attractiveness and progress. **OMEGA**, Vol. 31, Issue 5, (2003), 397-480.
 34. Chen, Y., Morita, H. and Zhu, Joe, Multiplier bounds in DEA via strong complementary slackness condition solution, **International Journal of Production Economics**, Vol. 86, No. 1, (2003), 11-19.
 35. Morita, H. and Zhu, Joe, Models for characterizing and measuring supply chain efficiency and achieving best practice. **System, Control and Information**, Vol. 16, No. 8, (2003), 388-396. (in Japanese)
 36. Chen, Y. and Zhu, Joe, DEA Models for Identifying critical performance measures, **Annals of Operations Research**, Vol.124, No. 1-4 (2003), 225-244.
 37. Zhu, Joe, A buyer-seller game model for selection and negotiation of purchasing bids: Extensions and New Models, **European Journal of Operational Research**, Vol. 154, Issue 1 (2004), 150-156.
 38. Banker, R.D., Cooper, W.W., Seiford, L.M., Thrall, R.M. and Zhu, Joe, Returns to scale in different DEA models. **European Journal of Operational Research**, Vol. 154, Issue 2 (2004), 345-362.
 39. Chen, Y. and Zhu, Joe, Measuring information technology's indirect impact on firm performance, **Information Technology & Management Journal**, Vol. 5, Issue 1-2 (2004), 9-22.
 40. Zhu, Joe, Imprecise DEA via standard linear DEA models with a revisit to a Korean mobile telecommunication company, **Operations Research**, Vol. 52,

- No. 2 (2004), 323-329.
41. Cook, W.D., Seiford, L.M. and Zhu, Joe, Models for performance benchmarking: Measuring the effect of e-commerce activities on banking performance, **OMEGA**, Vol. 32, Issue 4 (2004), 313-322.
 42. Seiford, L.M. and Zhu, Joe, A response to comments on modeling undesirable factors in efficiency evaluation, **European Journal of Operational Research**, Vol. 161, Issue 2 (2005), 579-581.
 43. Gregoriou, G.N., Sedzro, K. and Zhu, Joe, Hedge fund performance appraisal using data envelopment analysis, **European Journal of Operational Research**, Vol. 164, Issue 2 (2005), 555-571.
 44. Cook, W.D. and Zhu, Joe, Building performance standards into DEA structures, **IIE Transactions**, Vol 37, Issue 3 (2005), 267-275.
 45. Cook, W.D. and Zhu, Joe, Allocation of shared costs among decision making units: A DEA approach, **Computers & Operations Research**, Vol 32, Issue 8 (2005), 2171-2178.
 46. Morita, H., Hirokawa, K and Zhu, Joe, A slack based measure of efficiency in context dependent data envelopment analysis, **OMEGA**, Vol. 33, Issue 4 (2005), 357-362.
 47. Seiford, L.M. and Zhu, Joe, Notes on sensitivity and stability of the classifications of returns to scale in data envelopment analysis: A comment, **Journal of Productivity Analysis**, Vol. 23, No. 3 (2005), 315-316.
 48. Huang, Z.M., Li, S.X. and Zhu, Joe, A Special Issue on “Data Envelopment Analysis: Theories and Applications” in honor of William W. Cooper, **International Journal of Information Technology and Decision Making**, Vol. 4, No. 3 (2005), 311-316.
 49. Chen, Y., Morita, H. and Zhu, Joe, Context-dependent DEA with an application to Tokyo public libraries, **International Journal of Information Technology and Decision Making**, Vol. 4, No. 3 (2005), 385-394.
 50. Chen, Y., Liang, L., Yang, F. and Zhu, Joe, Evaluation of information technology investment: A data envelopment analysis approach, **Computers & Operations Research**, Vol. 33, Issue 5 (2006), 1368-1379.
 51. Cook, W.D. Green, R. and Zhu, Joe, Dual-role factors in DEA, **IIE Transactions**, Vol. 38, Number 2 (2006), 105-115.
 52. Cook, W.D. and Zhu, Joe, Incorporating multi-process performance standards into the DEA framework, **Operations Research**, Vol. 54, No. 4 (2006), 656-665.
 53. Cook, W.D. and Zhu, Joe, Rank order data in DEA: A general framework, **European Journal of Operational Research**, Vol. 174, Issue 2 (2006), 1021-1038.
 54. Cook, W.D. and Zhu, Joe, Preface for the Special Issue on “Performance

- Evaluation and Beyond: Data Envelopment Analysis Research Frontiers” in Honor of William W. Cooper, **Annals of Operations Research**, Vol. 145, No. 1 (2006), 1-3.
55. Liang, L., Yang, F. Cook, W.D. and Zhu, Joe, DEA models for supply chain efficiency evaluation, **Annals of Operations Research**, Vol. 145, No. 1 (2006), 35-49.
 56. Sherman, D.H. and Zhu, Joe, Benchmarking with quality-adjusted DEA (Q-DEA) to seek lower-cost high-quality service: Evidence from a U.S. bank application, **Annals of Operations Research**, Vol. 145, No. 1 (2006), 301-319.
 57. Cook, W.D. and Zhu, Joe, Within-group common weights in DEA: An analysis of power plant efficiency, **European Journal of Operational Research**, Vol. 178, Issue 1 (2007), 207-216.
 58. Cook, W.D. and Zhu, Joe, Classifying inputs and outputs in data envelopment analysis, **European Journal of Operational Research**, Vol. 180, Issue 2 (2007), 692-699.
 59. Gregorious, G.N. and Zhu, Joe, Data envelopment analysis as an alternative performance evaluation tool in assessing the efficiency of funds of hedge funds, **Journal of Portfolio Management**, Vol. 33, No. 2 (2007), 120-132.
 60. Cooper, W.W., Seiford, L.M., Tone, K. and Zhu, Joe, Some models and measures for evaluating performances with DEA: Past accomplishments and future prospects, **Journal of Productivity Analysis**, Vol. 28, No. 3 (2007), 151-163.
 61. Cooper, W.W. Z. Huang, S. Li and J. Zhu, A Response to the Critiques of Dmitruk and Koshevoy and of Bol, **Journal of Productivity Analysis**, Vo. 29, No. 1 (2008), 15-21.
 62. Cook, W.D. and Zhu, Joe, Context-dependent assurance regions in DEA, **Operations Research**, Vol. 56, No. 1 (2008), 69-78.
 63. Liang, L., J. Wu, W.D. Cook and J. Zhu, Alternative Secondary Goals in DEA Cross Efficiency Evaluation, **International Journal of Production Economics**, Vol. 113 (2008), 1025-1030.
 64. Liang, L., Wu, J., Cook, W.D. and Zhu, Joe, The DEA game cross efficiency model and its Nash equilibrium, **Operations Research**, (in press)
 65. Liang, L., Zha, Y., Cook, W.D. and Zhu, Joe, A Modified Super-efficiency DEA Model for Infeasibility, **Journal of Operational Research Society**, (in press)
 66. Chen, Y., Liang, L. and Zhu, Joe, Equivalence in Two-Stage DEA Approaches, **European Journal of Operational Research**, (in press)
 67. Chen, Y., Cook, W.D., Li, N. and Zhu, Joe, Additive Efficiency Decomposition in Two-Stage DEA, **European Journal of Operational Research**, (in press)
 68. Cook, W.D. and Zhu, Joe, Piecewise Linear Output Measures in DEA,

European Journal of Operational Research,

69. Liang, L., Cook, W.D. and Zhu, Joe, DEA Models for two-stage processes: game approach and efficiency decomposition, **Naval Research Logistics**,
70. Cook, W.D. and Zhu, Joe, Context-dependent performance standards in DEA, **Annals of Operations Research**,

Book Chapters

71. Seiford, L.M. and Zhu, Joe, Classification invariance in data envelopment analysis, in *Uncertainty and Optimality: Probability, Statistics & Operations Research*, Chapter 10, 331-342, ed. J.C. Misra, World Scientific, Singapore, 2002.
72. Wilkens, K. and Zhu, Joe, Classifying hedge funds using data envelopment analysis, in *Hedge Funds: Strategies, Risk Assessment, and Returns*, Chapter 10, 161-175, eds G.N. Gregoriou, V.N. Karavas, and F. Rouah, BeardBooks, Washington, D.C. 2003.
73. Cooper, W.W., Seiford, L.M. and Zhu, Joe, Data envelopment analysis: History, models and interpretations, in *Handbook on Data Envelopment Analysis*, Chapter 1, 1-39, eds W.W. Cooper, L.M. Seiford and J. Zhu, Kluwer Academic Publishers, Boston. 2004.
74. Banker, R.D., Cooper, W.W., Seiford, L.M. and Zhu, Joe, Returns to scale in data envelopment analysis, in *Handbook on Data Envelopment Analysis*, Chapter 2, 41-73, eds W.W. Cooper, L.M. Seiford and J. Zhu, Kluwer Academic Publishers, Boston. 2004.
75. Cooper, W.W., Li, S., Seiford, L.M. and Zhu, Joe, Sensitivity analysis in data envelopment analysis, in *Handbook on Data Envelopment Analysis*, Chapter 3, 75-97, eds W.W. Cooper, L.M. Seiford and J. Zhu, Kluwer Academic Publishers, Boston. 2004.
76. Cooper, W.W., Deng, H. Seiford, L.M. and Zhu, Joe, Congestion: Its identification and management with DEA, in *Handbook on Data Envelopment Analysis*, Chapter 7, 177-201, eds W.W. Cooper, L.M. Seiford and J. Zhu, Kluwer Academic Publishers, Boston. 2004.
77. Morita, H. and Zhu, Joe, Context-dependent DEA--public libraries, in *Productivity Analysis in the Service Sector with Data Envelopment Analysis*, Chapter 19, ed N. Avkiran, Australia, 2006.
78. Cook, W.D. and Zhu, Joe, Data Irregularities and Structural Complexities in DEA, in *Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis*, Chapter 1, 1-12, eds J. Zhu and W.D. Cook, Springer, Boston, 2007.

79. Cook, W.D. and Zhu, Joe, Rank Order Data in DEA, in *Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis*, Chapter 2, 13-34, eds J. Zhu and W.D. Cook, Springer, Boston, 2007.
80. Chen, Y. and Zhu, Joe, Interval and Ordinal Data, in *Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis*, Chapter 3, 35-62, eds J. Zhu and W.D. Cook, Springer, Boston, 2007.
81. Cook, W.D., Liang, L., Yang, F. and Zhu, Joe, DEA Models for Supply Chain or Multi-Stage Structure, in *Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis*, Chapter 11, 189-208, eds J. Zhu and W.D. Cook, Springer, Boston, 2007.
82. Morita, H. and Zhu, Joe, Context-dependent DEA and its use, in *Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis*, Chapter 13, 241-260, eds J. Zhu and W.D. Cook, Springer, Boston, 2007.

Books

83. Zhu, Joe, Quantitative Models for Performance Evaluation and Benchmarking: Data Envelopment Analysis with Spreadsheets. Kluwer Academic Publishers, Boston. 2003.
84. Cook, W.D. and Zhu, Joe, Designing and Modeling Performance Evaluation Issues, Springer Science, 2005.
85. Gregoriou, G.N. and Zhu, Joe, Evaluating Hedge Fund and CTA Performance: Data Envelopment Analysis Approach, John Wiley & Sons, New York. 2005.
86. Sherman, D.H. and Zhu, Joe, Service Productivity Management: Improving Service Performance using Data Envelopment Analysis, Springer Science, Boston. 2006.
87. Cook, W.D. and Zhu, Joe, Data Envelopment Analysis: Modeling Operational Processes and Measuring Productivity, 2008.
88. Zhu, Joe, Quantitative Models for Performance Evaluation and Benchmarking: Data Envelopment Analysis with Spreadsheets. 2nd edition. Springer Science, Boston. 2009

Edited Books

89. Cooper, W.W., Seiford, L.M. and Zhu, Joe, Handbook on Data Envelopment Analysis. Kluwer Academic Publishers, Boston. 2004.
90. Zhu, Joe and Cook, W.D., Modeling Data Irregularities and Structural Complexities in Data Envelopment Analysis, Springer Science, 2007

Edited Journal Special Issues

91. Huang, Z.M., Li, S.X. and Zhu, Joe, Data Envelopment Analysis: Theories and Applications, *International Journal of Information Technology and Decision Making* Special Issue, Vol. 4, No. 3, 2005.
92. Cook, W.D. and Zhu, Joe, Performance Evaluation and Beyond: Data Envelopment Analysis Research Frontiers, *Annals of Operations Research* Special Issue, Vol. 145, No. 1, 2006.
93. Zhu, Joe, Management Science Research in China: A Special Issue Dedicated to the 2008 Beijing Olympic Games, *OMEGA, The International Journal of Management Science*, Vol. 36, Issue 6, 2008.

Editorial Work

- **Associate Editor**, INFOR, (2007--present)
- **Associate Editor**, OMEGA journal, (2004--present)
- **Associate Editor**, Asia-Pacific Journal of Operational Research (2004--2008)
- **Editorial Board Member**, Computers & Operations Research (2005--present)
- **Guest Editor**, Annals of Operations Research
- **Guest Editor**, International Journal of Information Technology and Decision Making
- **Guest Editor**, OMEGA journal

Fellowships & Grants

- Research Fellowship, Osaka University, May-June, 2007 (¥500,000)
- Visiting Professorship grant, Department of Industrial and Information Management, the National Cheng Kung University, Taiwan, 2007. (US\$4,700)
- Hospital Quality Measurement & Reporting, KPMG & UIUC Business Measurement Research Program, \$100,000, June – September, 2003.
- Japan Society for Promotion of Science (JSPS) Invitation Fellowship for Research in Japan (Short-term), ¥ 1,200,000 (May-July, 2002)
- Using Discovery-Based Learning to Explore the Lean Design of Global Supply Chains, NSF, \$49,969, 1/1/02-6/30/03. (Co-PI)
- Using Discovery-Based Learning to Explore the Lean Design of Global

Supply Chains, Educational Development Council, Worcester Polytechnic Institute, 2001. (Co-PI)

- Managing the Information Technology (IT) Investment in E-business and E-Supply Chain Design, WPI Research Development Council 2001.

Professional Activities

- **Reviewer and panelist** for Division of Design, Manufacture, and Industrial Innovation, National Science Foundation.
- **Reviewer** for Social Sciences and Humanities Research Council of Canada.
- **Reviewer** for Natural Sciences and Engineering Research Council of Canada.
- **Invited as an expert** in Data Envelopment Analysis to participate in an National Science Foundation Sponsored Workshop on Engineering Applications of DEA at Union College, Schenectady, NY, December 10-11, 1999.
- **Book reviewer** Kluwer Academic Publishers.
- **Advisory Board Member** of the North American Productivity Workshop 2004, June 23-25, University of Toronto, Canada.

- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, November 4-7, 2006, Seattle.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, November 5-8, 2006, Pittsburgh.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS International Meeting, June 25-28, 2006, Hong Kong, China.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, Nov. 13-16, 2005 San Francisco, CA.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, CORS/INFORMS Joint International Meeting-Banff, May 16-19, 2004, Alberta, Canada.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, November 17-20, 2002, San Jose, CA.
- **Stream Co-Chairperson**, “Data Envelopment Analysis Cluster”, International Federation of Operational Research Societies Meeting, July 8-12, 2002, Edinburgh.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, November 4-7, 2001, Miami, FL.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS International Meeting, June 17-20, 2001, Maui.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, November 5-8, 2000, San Antonio, TX.

- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS/KORMS International Meeting, June 18-21, 2000, Seoul, Korea.
- **Cluster Co-Chairperson**, “Data Envelopment Analysis Cluster”, INFORMS National Meeting, May 7-10, 2000, Salt Lake City, UT.
- **Panel Organizer and Panelist**, Panel: “DEA Applications in E-commerce”, INFORMS National Meeting, November 5-8, 2000, San Antonio, TX.
- **Session Chairperson**, "Applications of Management Science Techniques", 31st Annual Meeting of the Decision Sciences Institute, November 18-21, 2000, Orlando, FL.
- **Session Chairperson**, "New DEA Developments and Uses II", Invited Session for INFORMS/KORMS International Meeting, June 18-21, 2000, Seoul, Korea.
- **Session Chairperson**, "Applications of DEA", Invited Session for INFORMS National Meeting, May 7-10, 2000, Salt Lake City, UT.
- **Session Chairperson**, "Data Envelopment Analysis", Invited session for INFORMS National Meeting, November 7-10, 1999, Philadelphia, PA.
- **Session Chairperson**, "DEA & Application", Invited Session for INFORMS National Meeting, May 2-5, 1999, Cincinnati, OH.
- **Session Chairperson**, “DEA Refinements & Extensions” Invited session, INFORMS National Meeting, Oct. 25-28, 1998, Seattle, WA.

- **Referee for**
 - Management Science*
 - Operations Research*
 - European Journal of Operational Research*
 - Journal of the Operational Research Society*
 - Naval Research Logistics*
 - Annals of Operations Research*
 - OMEGA, The International Journal of Management Science*
 - Journal of Manufacturing*
 - Journal of Productivity Analysis*
 - Operations Research Letters*
 - Socio-Economic Planning Sciences*
 - Computers and Operations Research*
 - Journal of Business Research*
 - Applied Stochastic Models and Data Analysis*
 - Networks*
 - INFOR*
 - Journal of Cost Analysis & Management*
 - International Transactions in Operations Research*
 - Economics of Education Review*
 - Computers & Mathematics with Applications*
 - Encyclopedia of Information Systems*
 - Computers & Industrial Engineering*
 - Health Care Management Science*
 - Organization Science*

- **Doctoral Committee**, School of Business Administration Hebrew University of Jerusalem, Mount Scopus, Israel
- **Member of INFORMS**, Institute for Operations Research and the Management Sciences
- **Committee Member**: INFORMS Membership and Membership Service

Invited Seminar Talks

1. *Data Envelopment Analysis 30 Years: New Models*, Institute of Policy and Management, Chinese Academy of Sciences, Beijing, China, July 3, 2008.
2. *PhD Research: How to Achieve High-Quality*, School of Management, University of Science & Technology of China, Hefei, China, June 14, 2008.
3. *An Introduction to Data Envelopment Analysis (DEA)*, Department of Information and Physical Sciences, Osaka University, Osaka, Japan, June 15, 2007.
4. *Context-dependent Assurance Region DEA (CAR-DEA)*, National Graduate Institute for Policy Studies, Tokyo, Japan, May 26, 2007
5. *How to Publish in Top Journals*, College of Management, Ming Chuan University, Taipei, Taiwan, Jan 10, 2007.
6. *Performance Evaluation and Benchmarking Using DEA*, Department of Industrial and Information Management, the National Cheng Kung University, Taiwan, Jan 4, 2007.
7. *Data Envelopment Analysis: What DEA Can Do*, Department of Mechanical & Industrial Engineering, Northeastern University, Boston, October 27, 2006.
8. *New Benchmarking Approaches and Applications*, MBA Seminar Series, School of Management, University of Science & Technology of China, Hefei, China, May 19, 2005.
9. *Data Envelopment Analysis (DEA) and Its Applications*, Research Seminar Series, School of Business and Economics, State University of New York, Plattsburgh, New York, November 21, 2003.
10. *Context-dependent DEA: A new DEA Approach*, Japanese DEA Seminar, National Graduate Institute for Policy Studies, Tokyo, Japan, June 15-18, 2002.

Conference Presentations

1. H. David Sherman & Joe Zhu, Benchmarking to Seek Lower-Cost High-Quality Service with Data Envelopment Analysis: Evidence from a U.S. Bank Application, American Accounting Association 2006 Annual Meeting, August 6-9, 2006, Washington, D.C
2. Hospital Quality Measurement - Framework for Research and Quality Improvement, INFORMS International Meeting, June 24-28, 2006, Hong Kong.
3. Dual Role Factors in DEA, INFORMS National Meeting, November 13-16, 2006, San Francisco, CA.
4. How to Measure Supply Chain Performance Using DEA? November 13-16, 2006, San Francisco, CA.
5. Context-dependent DEA, Pan-Pacific Conference XXII, Pan-Pacific Business Association, May 24-27, 2005, Shanghai, China.
6. Evaluating Supply Chain Performance Using DEA, Decision Sciences Institute 2004 Annual Meeting, Nov. 20-23, 2004, Boston.
7. Benchmarking with DEA: Evidence from a US bank implementation, North American Productivity Workshop, June 23-25, 2004, Toronto, Canada.
8. Building Performance Standards into DEA Structures, North American Productivity Workshop, June 23-25, 2004, Toronto, Canada.
9. DEA Models for Supply Chain Performance Evaluation, North American Productivity Workshop, June 23-25, 2004, Toronto, Canada.
10. Mixed Up: Organizational Efficiency, Selection, and Adaptation in the Cement Industry, Annual Strategy Research Conference at Harvard Business School, October 24-25, 2003, Boston, MA. (**invited**) (*Only 9 out of more than 100 submissions are invited/accepted.*)
11. DEA via Excel Spreadsheets and Excel Solver, INFORMS National Meeting, November 17-20, 2002, San Jose, CA. (**invited**)
12. DEA and Excel Solver, the fifth International Conference on Multi-Objective and Goal Programming: Theory & Applications, Nara, Japan, June 4-7, 2002.
13. On the Decomposition of DEA Inefficiency, the fifth International Conference on Multi-Objective and Goal Programming: Theory & Applications, Nara, Japan, June 4-7, 2002.
14. Efficiency Bounds in Data Envelopment Analysis via Strong Complementary Slackness Condition Solution, the fifth International Conference on Multi-Objective and Goal Programming: Theory & Applications, Nara, Japan, June 4-7, 2002.
15. The Impact of Information Technology in Banking, Northeast Decision Science Institute Annual Meeting, March 20-22, 2002, Puerto Rico.
16. Imprecise Data Envelopment Analysis, INFORMS National Meeting, November 4-7, 2001, Miami, FL. (**invited**)
17. Measuring Information Technology's Indirect Impact on Firm Performance, the 6th INFORMS Conference on Information System & Technology, November 3-4, 2001, Miami, FL. (**refereed**)

18. Data Envelopment Analysis in Measuring the Impact of Information Technology in Banking, the 6th Asia Pacific DSI Conference, July 18-21, 2001, Singapore. **(refereed)**
19. Theoretical Versus Achievable Targets in DEA: Modeling Output Deterioration, INFORMS International Meeting, June 17-20, 2001, Maui, Hawaii. **(invited)**
20. Models for Identifying Critical Measures, INFORMS International Meeting, June 17-20, 2001, Maui, Hawaii. **(invited)**
21. Identifying critical performance measures: Fortune's e-corporations vs. 1000 companies, Hawaii Conference on Business, June 14-17, 2001, Honolulu, Hawaii. **(refereed)**
22. Performance Evaluation and Benchmarking, 31st Annual Meeting of the Decision Sciences Institute, November 18-21, 2000, Orlando, FL. **(refereed)**
23. Modeling Undesirable Measures in Efficiency Evaluation, INFORMS National Meeting, November 5-8, 2000, San Antonio, TX **(invited)**
24. A Data Envelopment Analysis of Commodity Trading Advisor Returns, Financial Management Association International, Seattle, Washington, 2000.
25. DEA and Portfolio Evaluation, INFORMS/KORMS International Meeting, June 18-21, 2000, Seoul, Korea. **(invited)**
26. Allocative Efficiency in DEA. INFORMS National Meeting, May 7-10, 2000, Salt Lake City, UT. **(invited)**
27. DEA Congestion and Slacks. INFORMS National Meeting, November 7-10, 1999, Philadelphia, PA. **(invited)**
28. Sensitivity and Stability Analysis in DEA. Sixth European Workshop on Efficiency and Productivity Analysis, October 29-31, 1999, Copenhagen, Denmark. **(refereed)**
29. Sensitivity Analysis of Returns to Scale Classifications in DEA. Sixth European Workshop on Efficiency and Productivity Analysis, October 29-31, 1999, Copenhagen, Denmark. **(refereed)**
30. Returns to Scale in Different DEA Models. 5th International Conference of the Decision Sciences Institute (DSI), June, 1999, Athens, Greece. **(refereed)**
31. DEA as a Recruiting Tool. INFORMS National Meeting, May 2-5, 1999, Cincinnati, OH. **(invited)**
32. Context-dependent DEA. Georgia Productivity Workshop, 1998, Athens, GA **(refereed)**
33. DEA as a Benchmarking Tool. INFORMS National Meeting, 1998, Seattle, WA. **(invited)**
34. Sensitivity analysis of DEA measures. INFORMS National Meeting, 1997, Dallas, TX. **(invited)**
35. An Investigation of Returns to Scale Estimation. Georgia Productivity Workshop, 1996, Athens, GA. **(refereed)**

Professional Development

- Workshop on Supply Chain Management Practice & Research: Status & Future Directions, University of Maryland, April 18-19, 2001.
- Colloquium on teaching management science in spreadsheets, INFORMS Cincinnati National Meeting, April 30 - May 2, 1999.
- Workshop on the teaching management science in spreadsheets, Dartmouth College's Tuck School, June 1998.

Consulting

- NIH grant "Comparative Evaluation of Nursing Homes"
- Can Manufacturer Institute
- KPMG
- Akbank, Turkey

Awards/Honors

- 2001 Alan T. Waterman Award Nomination by Worcester Polytechnic Institute.
- 1997 INFORMS Doctoral Colloquium participant.
- The Abraham Charnes Research Fellowship in Quality Engineering, College of Engineering, University of Massachusetts-Amherst, 1996-1998.
- Chen-Shu-Biao Alumnus Scholarship, Southeast University, 1995.

Service to Worcester Polytechnic Institute (WPI)

- Business Calculus Task Force
- National Survey of Student Engagement Task Force
- Committee on WPI's forum on Doing Business in China
- Industrial Engineering Committee
- Department's Faculty Development & Tenure Committee
- Graduate Policy & Curriculum Committee
- AACSB Curriculum Development Committee
- Industrial Engineering Faculty Search Committee
- Economics Faculty Search Committee