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EDUCATION

M.B.A., Kellogg School of Management, Northwestern University, Evanston, IL, 2001
Ph.D., Physics, Drexel University, Philadelphia, PA, 1991
M.S., Physics, Drexel University, Philadelphia, PA, 1989
B.S., Physics, Drexel University, Philadelphia, PA, 1988

PROFESSIONAL EXPERIENCE

DIRECTOR OF TECHNOLOGY INITIATIVES AND SENIOR LECTURER (9/07 – Present), Center for Research in Technology and Innovation, Kellogg School of Management, Evanston, IL

FOUNDER AND MANAGING PARTNER (10/06 – Present), Agile Insights LLC, Evanston, IL

CLINICAL ASSOCIATE PROFESSOR OF TECHNOLOGY (9/04-9/07), Center for Research in Technology and Innovation, Kellogg School of Management, Evanston, IL

CLINICAL ASSISTANT PROFESSOR OF TECHNOLOGY (7/01-9/04), Center for Research in Technology and Innovation, Kellogg School of Management, Evanston, IL

ADJUNCT PROFESSOR (9/00- 6/01), the University of Chicago Graduate School of Business, Chicago, IL

RESEARCH ELECTRICAL ENGINEER (8/94-8/99), Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, CA

NATIONAL SCIENCE FOUNDATION AND JAPAN SCIENCE AND TECHNOLOGY AGENCY FELLOW (9/92-7/94), The Institute of Physical and Chemical Research (RIKEN), Saitama, Japan

VISITING ASSISTANT PROFESSOR (6/92-9/92), Department of Physics and Atmospheric Science, Drexel University, Philadelphia, PA

ADJUNCT PROFESSOR (9/90-6/92), Hahnemann University Graduate School, Philadelphia, PA

HONNORS AND AWARDS

- Number one Kellogg faculty case writer in 2010 – 2011: 25 cases, distributed by Harvard Business School Publishing, used by over 20,000 students worldwide each year.
- Faculty Impact Teaching Award, unanimously voted by Kellogg MBA class students in the Spring of 2010.
- Dean's Distinguished Service Award for Outstanding Contribution to the Quality of Student Life at Kellogg, 2001.
- Elected Graduate Management Association VP of Technology by Kellogg student body: 2000-2001.
- NSF/STA Fellowship to research in Japan: 1992-1994.
- Graduated B.S. top of class in Physics.
- Walter R. Koly Award for physics; given to outstanding undergraduate senior.
- Academic Deans List 1983-84 and 1986-87.
- Nominated into Sigma Xi Physics honor fraternity.

BOOKS

Mark Jeffery (2010). *Data-Driven Marketing – The 15 Metrics Every Marketer Should Know*, John Wiley and Son Publisher, 298 pages.

PEER-REVIEWED BOOK CHAPTERS

Mark Jeffery (2010). Return on Investment Analysis. A chapter in *The Handbook of Technology Management*, First Edition. Hossein Bidgoli Editor, and John Wiley and Son Publisher.

Mark Jeffery (2004). Return on Investment Analysis for e-Business Projects. A chapter in *The Internet Encyclopedia*, First Edition. Hossein Bidgoli Editor, and John Wiley and Son Publisher, Vol. 3, pp. 211-236.

Mark Jeffery (1999). Superconducting Electronics, A chapter in *The Encyclopedia of Electrical and Electronics Engineering*, First Edition. John Webster Editor, and John Wiley and Son Publisher, Vol. 20, pp. 688-710.

Robert Gilmore and Mark Jeffery (1994). Path Integrals and Network Quantum Numbers, A chapter in *On Klauder's Path: A field trip*, World Scientific Publishing Co., ISBN 981-02-1687- 4.

PEER-REVIEWED JOURNAL ARTICLES

Michel Benaroch, Mark Jeffery, Robert Kauffman and Sandeep Shah (2007), Option-Based Risk Managment: A Field Study of Sequential Information Technology Investment Decisions, *Journal of Management Information Systems*, Vol. 24, No. 2, pp. 103-140.

Michel Benaroch, Sandeep Shah, and Mark Jeffery (2006). On the Valuation of Multi-Stage IT Investments Embedding Nested Real Options, *Journal of Management Information Systems*, Vol. 23, No. 1, pp. 239-261.

Mark Jeffery and Ingmar Leliveld (Spring 2004). Best Practices in IT Portfolio Management, *Sloan Management Review*, Reprint 45309; Vol. 45, No. 3, pp. 41-49.

Mark Jeffery, P. Y. Xie, S. R. Whiteley, and T. Van Duzer (1999). Monte Carlo and Thermal Noise Analysis of Ultra-High-Speed High Temperature Superconductor Digital Circuits, *IEEE Transactions on Applied Superconductivity*. Vol.8, No. 3, pp. 104 – 119.

Anapuma Bhat, Xiafan Meng, Stephen Whiteley, Mark Jeffery, and T. Van Duzer (1999). A 10 GHz Digital Amplifier in an Ultra-Small-Spread High- J_c Nb/Al-Al_x/Nb Integrated Circuit Process, *IEEE Transactions on Applied Superconductivity*. Vol. 9, No. 2, Part 3, pp. 3232 – 3235.

Mark Jeffery, Willem Perold, Z. Wang, and T. Van Duzer (1998). Monte Carlo Optimization of Superconducting Complementary Output Switching Logic Circuits, *IEEE Transactions on Applied Superconductivity*, Vol. 8, No. 3, pp. 104-119.

Mark Jeffery, Willem Perold, and T. Van Duzer (1997). Experimental Demonstration of Complementary Output Switching Logic Approaching 10 Gb/s Clock Frequencies, *IEEE Transactions on Applied Superconductivity*, Vol. 7, No. 2, pp. 2665-2669.

Mark Jeffery, Willem Perold, and T. Van Duzer (1996). Superconducting Complementary Output Switching Logic Operating at 5 - 10 Gb/s, *Appl. Phys. Lett.*, Vol. 69, No. 18, pp. 2746-2748.

W. J. Perold, M. Jeffery, Z. Wang and T. Van Duzer (Sep. 1996). Complementary Output Switching Logic - A New Superconducting Voltage-State Logic Family, *IEEE Transactions on Applied Superconductivity*, Vol. 6, No. 3, pp. 125-131.

Mark Jeffery, T. Van Duzer, J. R. Kirtley, and M. B. Ketchen (1995). Magnetic Imaging of Moat-Guarded Superconducting Electronic Circuits, *Appl. Phys. Lett.*, Vol. 67, No. 12, pp. 1769-1771.

Mark Jeffery (1995). Analysis of a High Temperature Superconductor Quantum Flux Parametron Operating at 77K, *IEEE Transactions on Applied Superconductivity*, Vol. 5, No. 4, pp. 3522-3527.

Mark Jeffery (1995). Subquantum Limit Josephson Magnetometry, *Appl. Phys. Lett.*, Vol. 66, No. 21, pp. 2897-2900.

Simon J. Robinson and Mark Jeffery (1995). Conductance Fluctuations in Mesoscopic Three Dimensional Multiply Connected Normal Wire Networks, *Phys. Rev.*, Vol. B51, pp. 16807-16816.

S. J. Robinson, C. J. Lambert, and M. Jeffery (1994). Negative 4-Probe Conductance of Mesoscopic Superconducting Wires in the Localized Regime, *Phys. Rev.*, Vol. B50, No. 13, pp. 9611-9614.

Mark Jeffery and E. J. D'Angelo (1994). Optical Vortex Interaction in Lasers, *International Journal of Bifurcation and Chaos*, Vol. 4, No. 3, pp. 675-691.

Mark Jeffery and Eiichi Goto (1994). Low Noise dc Josephson Parametric Amplifier, *American Journal of Applied Physics*, Vol. 75, No. 11, pp. 7550-7558.

Mark Jeffery and Robert Gilmore (1990). Lattice-Dependent Magnetic Structure in Quantum Network Simulations of High- T_c Superconductors, *Phys. Rev.*, Vol. B41, pp. 2057-2070.

Mark Jeffery, Charles Green, Somdev Tyagi, and R. Gilmore (1989). Reproducible Magnetic Features of High- T_c Superconductors in Weak Fields, *Phys. Rev.*, Vol. B39, pp. 9054-9060.

Mark Jeffery, Charles Green, Somdev Tyagi, and R. Gilmore (1988). Quantum Network Simulations of High T_c Ceramic Superconductors, *Int. J. Mod. Phys.*, Vol. B2, pp. 1399-1403.

KELLOGG/HARVARD BUSINESS SCHOOL PUBLISHING CASE STUDIES

Mark Jeffery, Daniel Fisher, Mirron Granot, Anuj Kadyan, Albert Pho, Carlos Vasquez (2010), Strategic IT Transformation at Accenture, Case #: 5-110-002 (KEL471)

Russell Walker and Mark Jeffery (2010), Netflix Leading with Data: The Emergence of Data-Driven Video, Linus So, Sripad Sriram, Jon Nathanson, Joao Ferreira, Julia Feldmeier, Case #: 5-110-006

Mark Jeffery, Lisa Egli, Andy Gieraltowski, Jessica Lambert, Jason Miller; Liz Neely, Rakesh Sharma (2009), Air France Internet Marketing: Optimizing Google, Yahoo, MSN and Kayak Sponsored Search, Case #: 5-407-753

Mark Jeffery and James Anfield (2009), Outsourcing at Office Supply. Case #: 5-107-013.

Mark Jeffery and Robert A. Cooper (2008), Danaka Corporation: Healthcare Solutions Portfolio Management, Case #: 5-108-006

Mark Jeffery and Justin Williams (2007). DuPont-NASCAR Marketing, Case #: 5-107-014

Mark Jeffery, Robert A. Cooper and Debarshi Sengupta (2007). Danaka Corporation: Growth Portfolio Management, Case #: 5-306-511.

Mark Jeffery, Robert A. Cooper and Scott Buchanan (2007). DuPont Tyvek® -- Commercializing a Disruptive Innovation, Case #: 5-306-510.

Mark Jeffery; Saurabh Mishra, (2006), Sony-FIFA Partnership Marketing Program: The Value of Sponsorship, Case #: 5-206-250 (KEL195).

Mark Jeffery with Derek Yung and Alex Gershbeyn (2006). A&D High Tech Case A: Managing Projects for Success, Case #: 5-404-763(A).

Mark Jeffery with Derek Yung and Alex Gershbeyn (2006). A&D High Tech Case B: Managing Scope Change, Case #: 5-404-763(B).

Mark Jeffery, Lisa Jackson, Derek Yung, David Bibbs, Michael Dowhan, Daniel Grace, Woody Maynard, Steven Johnson, (2006), Supply Chain Outsourcing at DB Toys, Case #: 5-404-767 (KEL256)

Mark Jeffery with H Nevin Ekici, Cassidy Shield, and Mike Conley (2006). AMG Inc. & Forsythe Solutions: Lease vs. Buy Decisions, Case #: 5-404-762.

Mark Jeffery with Alex Gershbeyn, Derek Yung and Joe Norton (2006). Ariba Implementation at MED-X Inc: Managing Earned Value, Case #: 5-404-763.

Mark Jeffery with Tim Riitters and Jim Anfield (2006). B&K Distributors: Calculating ROI for a Web-Based Customer Portal, Case #: 5-404-764.

Mark Jeffery with Derek Yung, Alex Gershbeyn, and Joe Norton (2006). Clothes “R” Us Point-Of-Sale Initiative: Managing IT Programs, Case #: 5-404-765.

Mark Jeffery, Ichiro Aoyagi, and Ed Kalletta (2006). Marketing @ Microsoft: The Value of Customer Perception, Case #: 5-106-004.

Mark Jeffery with Derek Yung and Joe Norton (2006). MDCM Case A: IT Strategy Synchronization, Case #: 5-404-770(A).

Mark Jeffery with Derek Yung and Joe Norton (2006). MDSM Case B: Strategic IT Portfolio Management, Case #: 5-404-770(B).

Mark Jeffery with Robin Barnes and Chuck Olson (2006). ProSight: New Millennium Financial Technology Portfolio Management, Case #: 5-404-771.

Mark Jeffery with Robert Sweeney and Robert Davis (2006). ROI for a Customer Relationship Management Initiative at GST, Case #: 5-404-766.

Mark Jeffery with Cassidy Shield, H Nevin Ekici, and Mike Conley (2006). Shilling & Smith Acquisition of Xteria Inc.: Data Center Technology Leasing, Case #: 5-404-773.

Mark Jeffery and Saurabh Mishra (2006). SONY-FIFA Partnership Program: The Value of Sponsorship, Case #: 5-206-250.

Mark Jeffery with Robert Sweeney and Robert Davis (2006). Teradata: Data Mart Consolidation Return On Investment at GST Inc., Case #: 5-404-774.

Mark Jeffery, with Chris Rzymiski, Sandeep Shah, and Robert Sweeney (2004). The Value of Flexibility at Global Airlines: Real Options for EDW and CRM, Case #: 5-404-768.

WHITE PAPERS AND MAGAZINE ARTICLES

Mark Jeffery and Mike Ligas, *Strategies for the Next Generation CIO Leader*, Kellogg White Paper, 2008

Mark Jeffery, *Expand Your Outlook with Options Based Risk Management*, Teradata Magazine, 2008, pp. 12-13.

Mark Jeffery and Manoj Rana, *Driving Growth, Profitability and Efficiency Through IT*, Kellogg White Paper, 2008

Mark Jeffery and Saurabh Mishra (Jan. 2007). Strategic Marketing Performance Management: Challenges and Best Practices, *Kellogg White Paper*.

Mark Jeffery and David Bond (Jan. 2007). The New Marketing – IT Power Partnership: Insights and Ideas on Creating Value, Speeding Growth, and Overcoming Common Obstacles, *Kellogg/Sapient White Paper*.

Mark Jeffery and Lynn Brown, (Oct. 2006) The Story of Engagement – A Roundtable on the Art of Leadership, *Waste Management White Paper Summary for Executive Summit CEO Participants*.

Mark Jeffery (Sep. 2006). Best Practice ROI Marketing, *Kellogg/Microsoft executive circle article*.

Sheldon Monteiro and Mark Jeffery (June 2005). Missing Millions: Unlocking Strategic IT Value, *Kellogg/Sapient Corporation White Paper*.

M. Jeffery and P. Goldstein (2005). IT Portfolio Management for Colleges and Universities: Balancing Risk/Return for Strategic Results, Boulder, Colo.: *EDUCAUSE Center for Applied Research*, Research Bulletin, Issue 3.

Mark Jeffery (Sep. 2003). Which IT Investment Should I Make? How Executives Can Balance Risk and Return For Long-term Strategic Results, *Kellogg/Teradata White Paper*.

Ingmar Leliveld and Mark Jeffery (Feb. 2003). IT Portfolio Management Changes and Best Practices, *Kellogg/DiamondCluster White Paper*.

CONFERENCE PROCEEDINGS

Mark Jeffery, N. Yoshikawa, J. Koshiyama, L. Zheng, and T. Van Duzer (1999). Component Development for a 16 Gb/s Digital Superconducting Ring Data Bus, *In the Extended Abstracts of the 7th International Superconductive Electronics Conference (ISEC'99)*, June 21-25, Berkeley, CA.

Mark Jeffery, L. Zheng, S. R. Whiteley, and T. Van Duzer (1999). Simulations of Ultra-High-Speed High Temperature Superconductor Digital Circuits Combining Process Variations and Thermal Noise, *In the Extended Abstracts of the 7th International Superconductive Electronics Conference (ISEC'99)*, June 21-25, Berkeley, CA.

Willem Perold and Mark Jeffery (1999). Synchronous 5 - 10 Gb/s Digital Superconducting Amplifier Circuits Fabricated with a Horseshoe Architecture, *In the Extended Abstracts of the 7th International Superconductive Electronics Conference (ISEC'99)*, June 21-25, Berkeley CA.

Zuoqin Wang, Mark Jeffery, T. Van Duzer, and Willem Perold (1997). High-Speed Demonstration of a Superconducting Pseudo-Random Bit-Sequence Generator, *In the Extended Abstracts of the 6'th*

International Superconductive Electronics Conference (ISEC'97), June 25 - 28, Berlin, Germany, pp. 278-280.

Mark Jeffery, J. R. Kirtley, M. B. Ketchen, and T. Van Duzer (1995). Imaging of Moat-Guarded Superconducting Circuits by Scanning SQUID Microscopy, *In the Extended Abstracts of the 5'th International Superconductivity Electronics Conference*, September 18 - 21, Nagoya, Japan, pp.174-177.

Mark Jeffery and Eiichi Goto (1994). Subquantum Limit dc Josephson Parametric Amplifier, *Presented at the 15th International Cryogenic Engineering Conference and Industrial Exhibition*, Cryogenics 1994, Genova, Italy, Vol. 34, ICEC Supplement, pp. 899-903.

Mark Jeffery and Eiichi Goto (1993). Analytical Dynamics and Quantum Noise Analysis of the IKA Parametric Amplifier, *Presented at the 54'th Autumn Meeting of the Japan Society of Applied Physics*, Sapporo, Japan, JSAP# AP 931122-01, p. 128.

Mark Jeffery and Eiichi Goto (1993). Quantum Limit Josephson Magnetometry; *In the Extended Abstracts of the 4'th International Superconductivity Electronics Conference*, Boulder, Colorado, pp. 158-159.

Mark Jeffery and Robert Gilmore (1994). Self-Consistent Quantization of Superconducting Networks, Presented at the XX International Conference On Low Temperature Physics, Eugene, Oregon, *Physica B* 194-196, pp.1027-1028.

Mark Jeffery and Eiichi Goto (1994). Numerical Simulations of the IKA Parametric Amplifier; Presented at the XX International Conference On Low Temperature Physics, Eugene, Oregon, *Physica B* 194-196, pp. 91-92.

Mark Jeffery and Robert Gilmore (1990). Nonlinear Interaction Between High T_c Superconductors and Weak External Fields, Presented at the Fourth Annual Conference on Superconductivity and Applications, Buffalo, New York, *AIP Conf. Proc.* 219.

INVITED TALKS

Transformational IT: The 5 Secrets of CIO Leaders in Difficult Times, Society for Information Management, Phoenix AZ, 4/20/2011.

Transformational Marketing: Leveraging Marketing to Drive Profitable Growth and Create a Strategic Advantage, Dow Chemical senior leadership summit, Dusseldorf Germany, 11/3/10.

Strategic IT Management: Challenges and Opportunities, DoD/VA Interagency Program kickoff meeting keynote, Washington DC, 5/12/10.

Bridging the IT-Business Divide, McGraw Hill Companies Key Leader Briefing to the CEO and top 300 executives, NY NY, 3/9/09.

Marketing Performance Management, Teradata Partners Conference, Las Vegas, 10/13/08.

Transformational Marketing, NAVISTAR Marketing Annual Kickoff Meeting, Oakbrook, IL 8/14/08.

Strategic Sponsorship ROI, Keynote at the International Sponsorship Council, Atlanta Georgia, 2/28/08.

Chaired and co-presented, Strategic Marketing Management: The Role of Process Capabilities, American Marketing Association Winter Educators' Conference, (Special Session), Austin, TX, 2/18/08.

Enterprise Technology Risk Management; A Real Options Approach, Teradata Partners Conference Executive Track, Las Vegas, 10/1/07.

Governing IT for Strategic Advantage, Keynote at Harland Financial Mortgage Banker CEO Breakfast, Chicago, IL, 10/24/06.

Unlocking Strategic Value from IT, Keynote at the Cisco Systems, IBM, Single Path Executive Forum, Chicago, IL, 10/19/06.

The Story of Engagement: A Roundtable on the Art of Leadership, Facilitator and Chair of the Waste Management CEO forum, Pebble Beach, CA, 9/26/06.

Strategic Marketing Performance Management, Teradata Partners Conference, Orlando, FL, 9/18/06.

Governing the IT Portfolio for Strategic Advantage, Keynote at the Cisco Systems Executive Partner Forum, Chicago, IL, 1/13/06.

IT Portfolio Management in Federal Government Civilian and Defense Agencies, US Department of Defense, Crystal City, VA, 12/9/2005.

Federal IT Portfolio Management Survey: Removing Barriers to Benefits, Keynote and Panel Discussion, US Federal Government CIO Council Event, Washington DC, 10/25/05.

Delivering ROI through IT Portfolio Management, Teradata keynote at the NCR Drive for Success, US Senior Open Golf Tournament Executive Forum, Dayton, OH, 7/27/05, 7/28/05 and 7/29/05.

Portfolio Management: Building the Vertical Links between Mission, Strategy, Plans, and Projects, Keynote at the Veterans Administration project management conference, Atlanta, GA, 5/19/05.

Governing the IT Portfolio for Strategic Advantage, Mercury Interactive and Accenture IT Governance Executive Forums, San Francisco 5/3/05, Atlanta 5/5/05, New York 5/10/05, and Chicago 5/12/05.

Risk Management and the Value of Flexibility for IT, Society for Information Management, Chicago, IL, 10/20/04.

Technology Portfolio Management and Best Practices: Managing Risk and Maximizing Value, Teradata Partners Conference, Seattle, WA, 10/11/04.

IT Portfolio Management Challenges and Best Practices, Keynote at the Central Intelligence Agency Project Management Conference, Washington DC, 10/6/04.

Lessons in Choosing the Right Project, Association for Communications Technology Professionals in Higher Education (ACUTA) 33rd Annual Conference, Chicago, IL, 8/5/2004.

ROI Marketing, The 2004 Marketing Information Integration Conference: Integrating Customer and Market Insights to Boost Results, Chicago, IL, 6/22/04.

IT Investment Decision Making, Keynote at the EDUCAUSE IT Funding Forum, Chicago, IL, 4/19/04.

IT and Business Value – Empirical and Analytic Research Results, Cisco Systems, San Jose, CA, 11/5/03.

Maximizing Strategic Business Value from Information Technology, Society for Information Management, Chicago, IL, 10/22/03.

Technology Portfolio Management and Best Practices: Managing Risk, NCR Teradata Partners Conference, Seattle, WA, 9/23/2003.

IT Portfolio Management Best Practices and Web Project ROI Analysis, Microsoft.com, Redmond, WA, 9/11/2003.

Real Options and Enterprise Technology Project Selection and Deployment Strategies, 7th International Conference on Real Options, Washington DC, 7/11/2003.

Kellogg Technology Management Course and Research Overview, Industrial Engineering and Management Science Department, McCormick School of Engineering, Northwestern University, Research Seminar, 3/13/2003.

Technology Portfolio Management: Building the Platform to Achieve the Formula, NCR Teradata Executive Summit, Las Vegas, Nevada, 10/1/2002.

Technology Portfolio Management and ROI: How to Align Corporate Strategy and Technology Investments. NCR Teradata Partners Conference, Las Vegas, Nevada, 9/30/2002.

Technology Portfolio and Program Management, NCR Teradata, Dayton, Ohio, 4/10/2002.

Bridging the gap between technology academic standards, education research, and classroom practice, Conference: Becoming Standards Based: Successful Strategies to Implement Academic Standards, PRISE (PA Resources to Implement Standards in Education), Bethlehem, PA, 8/3/2000.

Technology tools for standards based instruction, Conference: Becoming Standards Based: Successful Strategies to Implement Academic Standards, PRISE (PA Resources to Implement Standards in Education), Bethlehem, PA, 8/3/2000.

Single Flux Quantum Railroads: A 64-Gb/s Superconducting Ring Data Bus, NEC Fundamental Research Laboratories, Tsukuba, Japan, 10/16/98.

Superconductive Ultra-High-Speed Digital Technology and Possible Applications, Hitachi Central Research Laboratory, Tokyo, Japan, 10/14/98.

High-Speed Superconductive Digital Circuits, Yokohama National University, Yokohama, Japan, 10/13/98.

State-of-the-Art Voltage-State Logic, The 10th Biennial Workshop on Superconductive Electronics: Devices, Circuits and Systems, Iron Horse Retreat, Winter Park, CO, 9/17/97.

Digital Superconducting Electronics, Department of Physics, The University of New Orleans, New Orleans, LA, 1/10/97.

Superconducting Complementary Output Switching Logic for 5-20 GHz Applications: An Integrated Design Methodology, Department of Physics, Harvard University, Cambridge, MA, 12/5/96.

Superconducting Flash Analog to Digital Converter for Digital Radar Systems, MIT Lincoln Laboratory, Radar Measurement Division, Lexington, MA, 12/3/96.

Optimal Moats and Magnetic Shielding for Large Scale Integrated Superconducting Electronics; 1995 Workshop on Superconducting Electronics: Devices, Circuits, and Systems, Nemacolin Woodlands Conference Center, Farmington, PA., 10/11/95.

Imaging of Moat-Guarded Superconducting Electronic Circuits by Scanning SQUID Microscopy, 1995 International Superconductive Electronics Conference (ISEC), Nagoya Congress Center, Nagoya, Japan, 9/16/95.

Subquantum Limit Josephson Magnetometry, Laboratory of Cryogenics, Physikalisch-Technische Bundesanstalt (PTB), Berlin, Germany, 6/13/94.

Defect Interactions in Optics and Superconductors, The Institute of Nonlinear Dynamics, University of Nice, Sophia-Antipolis, France, 6/10/94.

Subquantum Limit Josephson Magnetometry, Department of Physics, Kyushu University, Fukuoka, Japan, 3/11/94.

Turbulence in Optical and Superconducting Systems, Advanced Research Laboratory Hitachi Ltd., Saitama, Japan, 11/8/93.

Defect Motion in Optical Systems, Workshop on the Statics and Dynamics of Vortices in Superconductors; Satellite Conference to the XX International Conference On Low Temperature Physics, University of Oregon, Eugene, Oregon, 8/4/93.

Lagrangian Analytical Dynamics and Quantum Noise Analysis of the IKA Parametric Amplifier, IBM T. J. Watson Research Laboratory, Yorktown Heights, NY, 7/9/93.

Quantization of Superconducting Networks; Yukawa Institute for Theoretical Physics, Kyoto University, Kyoto, Japan, 6/4/93.

Scientific Visualization of Defect Motion in Optical Systems, Third Annual Symposium on Scientific Data Visualization, The Institute of Physical and Chemical Research (RIKEN), Saitama, Japan, 11/13/92.

EXTERNAL RESEARCH SUPPORT

Enterprise IT Risk Management: A Real Options Approach, Principle Investigator, 2006, NCR Teradata, \$35,000.

Bridging the Marketing IT Divide, Principal Investigator, 2006, Sapient Consulting, \$25,000.

An Empirical Study of Marketing Portfolio Management Challenges and Best Practices, Principal Investigator, 2005, NCR Teradata, \$70,000.

A value based approach to application portfolio management, Principal Investigator, 2005, Sapient Consulting, \$5,000.

Methodology for valuation of the Microsoft.com Web portal, Principal Investigator, 2004, Microsoft Corporation, \$66,000.

Business value realization study, Principle Investigator, 2004, Cisco Systems, \$56,000.

Real Options Valuation of Enterprise Data Warehouse Projects. Principal Investigator, 2002-2003, NCR Teradata, \$150,000.

US Navy Strategic Smart Card and Knowledge Management Applications, Principal Investigator, 2002, United States Department of Navy e-Business Operations Office contract #N00104-02-M-Q369, \$70,000.

Application of Intel Pentium Pro Workstation to Ultra-high Speed Superconducting Electronics Research Principal Investigator, 1997, Intel, \$6,630.

Numerical Simulations of a dc Offset Free Magnetic Field Detector Operating at the Quantum Limit Principal Investigator, 1992-94. United States National Science Foundation grant #INT-9220286 and Japan Science and Technology Agency grant #192034, \$135,605.

Quantum Network Simulations of Mesoscopic Normal and Superconducting Systems, Principal Investigator with Simon Robinson, 1993. Pittsburgh Supercomputer Center Advanced Computing Resources 97 service unit production grant #DMR930040P on Cray Y-MP C90, \$72,750.

Quantum Noise Analysis of the IKA Josephson Parametric Amplifier, Principal Investigator, 1993. Pittsburgh Supercomputer Center Biomedical Research Program #BIR930002P on Cray Y-MP C90, \$7,500.

ACCADEMIC SERVICE

- Editorial board for the International Journal of Information Technology Education 02-05.
- Referee for Applied Physics Letters, the American Journal of Applied Physics, and IEEE Transactions on Applied Superconductivity 92-99.

COMMUNITY SERVICE

- Participated in the principle for a day program in the Chicago Public Schools, 02 and 03.
- Volunteer team leader for NetDay at West Lake Junior High School in Oakland, CA, 5/96-2/97

PROFESSIONAL MEMBERSHIPS

- International Society of Electrical and Electronics Engineers (IEEE)