

Nicole M. Radziwill

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Professional Profile: <http://www.linkedin.com/in/nicoleradziwill> - Blog: <http://qualityandinnovation.com>

RESEARCH AND TEACHING INTERESTS

Quality and Process Improvement, Quality Consciousness and Innovation, Quality Informatics, Predictive Analytics & Intelligent Systems, Industrial Simulation, Technology Management, Applied Statistics

EDUCATION

Ph.D. Technology Management and Quality Systems, Indiana State University (2009)

Dissertation: *Topology, Evolution, and Network-Based Continuous Improvement of the Quality Management Journal (QMJ)*

MBA, Regis University (2004)

M.S. credits, Atmospheric Science, South Dakota School of Mines & Technology (1997-1998)

B.S. Meteorology, Pennsylvania State University (1995)

North Carolina School of Science and Mathematics (1992)

CURRENT AFFILIATIONS

Senior Member, American Society for Quality (ASQ), Software/Quality Mgmt divisions, since 2002

Association for Technology Management and Applied Engineering (ATMAE), since 2007

International Network for Social Network Analysis (INSNA), since 2007

Full Member, American Meteorological Society (AMS), since 1994

CERTIFICATIONS

ASQ Certified Six Sigma Black Belt (CSSBB) #11952

ASQ Certified Manager of Quality and Organizational Excellence (CQM/OE) #9583

HONORS & RECOGNITION

- One of 18 bloggers selected for **ASQ Influential Voices** program, 2012+
- ASQ's **40 New Voices of Quality**, 2011
- **Epsilon Pi Tau** National Technology Honor Society, 2009+
- **Vice Presidential Hammer Award**, 1999
 - For supporting contributions to improved data quality and data production processes as part of NOAA GPS Meteorology Group, for “contributions to building a government that works better and costs less” (<http://nicoleradziwill.com/portfolio/hammer.jpg>)
- Nortel Networks Professional Services **Newcomer of the Year** Award, 2000
- Nortel Networks Strategic Services **Employee of the Quarter**, July 2000

PROFESSIONAL EXPERIENCE

Assistant Professor, Department of Integrated Science and Technology, James Madison University (Harrisonburg, VA) – 2009 to present

Assistant Director (VP), Office of End to End Operations, National Radio Astronomy Observatory Headquarters (Charlottesville, VA) – 2006 to 2009

Managing Partner, Espresso Labs LLC (Charlottesville, VA) – 2009 to 2011

Head of Software Development, Green Bank Telescope (GBT), National Radio Astronomy Observatory (Green Bank, WV) – 2002 to 2006

Chief Operating Officer, Tessellent LLC (Denver, CO) – 2002

Senior Solutions Architect & Engagement Manager, Major Accounts, Nortel Networks Professional Services Organization (NA, Europe, Australia) – 2000 to 2001

Software Development Manager, Rhythms Netconnections, Inc. (Englewood, CO) – 1999

Scientific Systems Analyst, National Oceanic & Atmospheric Administration (NOAA) Forecast Systems Laboratory (Boulder, CO) – 1998 to 1999

Scientific Systems Analyst, Institute for Atmospheric Sciences (Rapid City, SD) – 1998

Project Manager, Systems Administrator, Perl Programmer, Quintet International, Inc. (State College, PA) – 1995 to 1998

PROFESSIONAL DEVELOPMENT

Stanford University, Introduction to Artificial Intelligence (w/S. Thrun & P. Norvig) – Fall 2011

JMU, Audit of PSY 497A Positive Psychology (w/J. Kurtz) – Fall 2011

Institute for Blended Learning, JMU Center for Faculty Innovation – Fall 2011

Naropa University (Boulder, CO) Audit of EDU 615E Sacred Learning – Fall 2010

PUBLISHED ARTICLES ABOUT NICOLE IN MAGAZINES/JOURNALS:

Arceo-Negrich, A., 2011: Indiana State doctoral graduate named one of “40 New Voices of Quality”. ISU Office of Communications and Marketing. <http://www.indstate.edu/news/news.php?newsid=2982>

American Society for Quality (ASQ), 2011 (November): The New Voices of Quality. <http://asq.org/qualityprogress/tools-resources/new-voices-of-quality/index.html>

American Society for Quality (ASQ), 2010 (November): Process Mapping Software – The First Steps. *ASQ Weekly*. November 10. Expert Interview, available from ASQ Media Room or http://nicoleradziwill.com/portfolio/ASQWeekly_ProcMapping.pdf

Williams, K., 2010: Physical Science: Learning through Teaching. *The Bluestone*, p. 204. Available at http://nicoleradziwill.com/portfolio/Williams_RadzGSCI10.pdf

SERVICE**SERVICE TO UNIVERSITY/FACILITY****JMU***University*

2011 Quality Enhancement Program (QEP) Implementation Consultant (Ad Hoc)
 2011-2012 Spirituality Dialogues (Wellness Passport Program) Facilitator

College

2011-2012 New College Steering Committee

Department

2011 ISAT Information & Knowledge Management (IKM) Academic Team, Lead
 2011 ISAT Telecom Program, Faculty Hiring Committee
 2011 JMU ISAT Master's Program, Interim Admissions Committee
 2011 Quality Enhancement Program (QEP) Proposal Reviewer (Ad Hoc)
 2011 ISAT Intelligence Analysis Program, Faculty Hiring Committee
 2009-present ISAT Information & Knowledge Management (IKM) Academic Team, Member
 2009-present ISAT Social Context Academic Team, Member
 2009-present ISAT Foundations Committee, Member

National Radio Astronomy Observatory (NRAO)

2009 Member, Search Committee, Assistant Director for Program Management (NRAO)
 2007 Chair, Search Committee, Chief Information Officer (NRAO)
 2006 – 2009 Diversity Committee, National Radio Astronomy Observatory
 2004 Expanded Very Large Array (EVLA) telescope Design Review, Panel Member
 2003 Chair, NRAO Observatory Computing Council
 2003-2005 Founding Member, GBT Project Planning & Change Control Committee

SERVICE TO PROFESSION**Quality Awards Programs***National*

2009 & 2010 Examiner, Malcolm Baldrige National Quality Award (MBNQA), administered by the National Institute of Standards and Technology (NIST); appointed by the U.S. Department of Commerce

International

2008 & 2011 Preliminary Round Judge, ASQ International Team Excellence Award (ITEA)

Journals

2011 – pres. Editorial Review Board, *Quality Approaches in Higher Education (QAHE)*
 2009 – pres. Editorial Review Board, *Journal of Industrial Technology (JIT)*
 2007 – pres. Editorial Review Board, *Software Quality Professional (SQP)*

Standards Development

2011 Ad Hoc Reviewer, IEEE P730 Standard for Software Quality Assurance
 2009 International Organization for Standardization (ISO) 26000 Standard for Social Responsibility, U.S. Technical Advisory Group (TAG), SSRO (Services and Research Organizations) Division Member

Confidential Grant Review Panels (Invited)

Panel Member or Co-Chair of 11 panels convened by the National Science Foundation (NSF) and/or Department of Energy (DOE) to evaluate the management and administration of federally funded science infrastructure/facilities. Limited details available upon request.

Technical & Management Review Panels (Invited)

2009 Chair, National Ecological Observation Network (NEON) Cyberinfrastructure Review
 2004 Atacama Large Millimeter Array (ALMA) telescope operations review, Panel Member
 2003 Atacama Large Millimeter Array (ALMA) telescope computing review, Panel Member

Conference Program Committees (Technical Reviewer)

2014 Program Chair, SPIE 2014, Software and Cyberinfrastructure for Astronomy
 2012 Program Chair, SPIE 2012, Software and Cyberinfrastructure for Astronomy
 2012 Program Committee/Referee, SPIE 2012, Observatory Operations
 2012 Technical Program Committee (TPC), American Society for Quality (ASQ) World Conference on Quality and Improvement (WCQI), Anaheim CA
 2011 Chair, Management Track, Association for Technology Management and Applied Engineering (ATMAE) Annual Conference, Panama City FL
 2010 Technical Program Committee (TPC), American Society for Quality (ASQ) World Conference on Quality and Improvement (WCQI), St. Louis MO
 2010 Chair, Management Track, Association for Technology Management and Applied Engineering (ATMAE) Annual Conference, Panama City FL
 2010 Program Chair, SPIE 2010, Software and Cyberinfrastructure for Astronomy
 2010 Program Committee/Referee, SPIE 2010, Observatory Operations
 2008 Program Chair, SPIE 2008, Advanced Software and Control
 2008 Program Committee/ Referee, SPIE 2008, Observatory Operations
 2006 Program Committee/Referee, SPIE 2006, Advanced Software and Control

Conference Program Committees (Non-Reviewer)

2009 Program Organizing Committee, Astronomical Data Analysis & Software (ADASS)
 2009 Marketing Chair, International Conference on Software Quality (ICSQ)
 2008 Marketing Chair, 4th World Congress for Software Quality (WCSQ)

Service to Professional Organizations*American Society for Quality (ASQ)*

2011 Chief Proctor, Section 1108, ASQ Certification Exams (Dec. 3)
 2011- Young Quality Professionals (YQP) Advisory Board
 2009-2011 Chair, Software Division (Elected)
 2010 Newsletter Editor, Software Division
 2008-2009 Chair-Elect, Software Division (~4000 members)
 2008 Strategic Planning Chair, Software Division
 2006-2008 Software Division Regional Councilor (Mid-Atlantic Region 11)

Association of Technology Management & Applied Engineering (ATMAE)

2010-2011 Vice President (Elected), Management Division
 2009-2010 Interim Vice President (Elected), Management Division

Other

2008 Co-Chair, Innovation Group, Network Roundtable at the University of Virginia

SERVICE TO COMMUNITY & SOCIETY

Quality Without Borders (2010+): Nicole is currently developing this service learning model with local ASQ Section Past Chair Rebecca Simmons and community partners, where students can partner with quality professionals to learn tools and techniques of quality improvement by contributing their talents to local non-profits, community services, and small business development. They are currently in discussions with local community service agencies, business development groups affiliated with the SBA, and the Agile Philanthropy group out of Washington, DC whose mission is to apply agile practices (originally from software development) to community service. A presentation explaining this model and how other ASQ local sections can leverage will be presented at the ASQ World Conference for Quality and Improvement 2012 as a multi-session sponsored by the ASQ Young Quality Professionals group.

Semester Projects for Community Service and Small Business Development: Nicole supervises from 20-30 semester projects in her Applied Statistics, Simulation and Modeling, and Intelligent Systems courses each year. Through the “Quality Without Borders” model she is linking her students with real problems that local agencies and businesses need help with immediately. In addition to providing students with a sense of purpose, and helping them recognize that their developing skills have practical utility, this approach to teaching helps cultivate awareness of social responsibility and the development of citizenship.

Managing Cyberinfrastructure Facilities: Nicole is part of a team of researchers and practitioners who are identifying ways to more effectively manage federally funded national cyberinfrastructure facilities. For info about the initial workshop and contributors see <http://www.terry.uga.edu/mis/workshop/> and <http://www.terry.uga.edu/mis/workshop/attendees.html>. Nicole has been interested in improving the quality of major federally funded research facilities since the late 1990’s, since she was part of a team receiving the **Vice Presidential Hammer Award** in 1999, for supporting contributions to improved data quality and data production processes as part of NOAA GPS Meteorology Group (see <http://nicoleradziwill.com/portfolio/hammer.jpg>)

TEACHING, ADVISING & MENTORSHIP

Classes Taught (B*=blended; **=online; S*=service learning; T*=team taught)

Graduate Level

Fall 2010 ISAT 654 – Advanced Technology Management (3 cr.)

B*Fall 2011 ISAT 654 – Advanced Technology Management (3 cr.)

Honors Seminar

ST*Spring 2012 HON 300 – Quality and Process Improvement in Action (3 cr.) (w/R. Simmons, COB)

ISAT Information & Knowledge Management

Spring 2012 ISAT 341 – Simulation & Modeling (3 cr.)

Spring 2011 ISAT 341 – Simulation & Modeling (3 cr.)

Spring 2010 ISAT 341 – Simulation & Modeling (3 cr.)

Fall 2011 ISAT 344 – Intelligent Systems (3 cr.)

Spring 2011 ISAT 344 – Intelligent Systems (3 cr.)

Fall 2010 ISAT 344 – Intelligent Systems (3 cr.)

T*Spring 2010 ISAT 344 – Intelligent Systems (3 cr.) (w/P. Cushman)

Foundations/Analytical Methods

S*Spring 2012 GISAT 251 – Applied Statistics (3 cr.)

Fall 2011 GISAT 251 – Applied Statistics (3 cr.)

Fall 2010 GISAT 251 – Applied Statistics (3 cr.)

Fall 2009 GISAT 251 – Applied Statistics (3 cr.) (assistant to P. Goodall)

Discussion Groups

T*Spring 2012 ISAT 131 – Science, Technology and Society (w/A. Biesecker, ISAT)

T*Spring 2011 ISAT 131 – Science, Technology and Society (w/A. Biesecker, ISAT)

General Education

B*May 2012 GSCI 161 – Science Processes (1 cr.)

**May 2012 GSCI 162 – Science of the Planets (2 cr.)

**May 2011 GSCI 162 – Science of the Planets (2 cr.)

Spring 2010 GSCI 164 – Physical Science (2 cr.)

Fall 2009 GSCI 161 – Science Processes (1 cr.)

Fall 2009 GSCI 162 – Science of the Planets (2 cr.)

Student Projects Advised at JMU*Primary Advisor for Current & Completed Projects:*

- 2012 – “Improving Product and Process Quality at Starr Hill Brewery Using Intelligent Systems,” Sean McMillin, Andy Duong, Nick Kersch, Jan Smith, John Turner, Blake Jenkins; B.S. in Integrated Science and Technology at JMU
- 2011 – “An Expert System for the Quality Systems Development Roadmap (QSDR),” Doug Jin, B.S. in Integrated Science and Technology at JMU

Primary Advisor for New Projects:

- 2014 – “Improving Product and Process Quality at Starr Hill Brewery Using Intelligent Systems,” Elizabeth Wronko, Emily Northup; B.S. in Integrated Science and Technology at JMU
- 2013 – “Improving Product and Process Quality at Starr Hill Brewery Using Intelligent Systems,” Donald Jagoda, Mandy Jenkins; B.S. in Integrated Science and Technology at JMU

Committee Chair for:

- 2012 – “Identifying Critical Articles and Research Themes in Technology and Innovation Management Using Network Analysis,” Mo Lamrani, M.S. in Integrated Science and Technology at JMU

Committee Member for:

- 2012 – “Exploring More Efficient Business Models for Electric Power Distributors,” Brooks Taylor, M.S. in Integrated Science and Technology at JMU
- 2010 – “Simulating Business Team Assembly with Network Models,” Kevin Zdancewicz, M.S. in Integrated Science and Technology at JMU
- 2006 – “Data Quality Diagnostics for the Green Bank Telescope,” Ron DuPlain, B.S. in Computer Engineering at the University of Cincinnati [co-op project]

Summer Student Projects Advised

National Radio Astronomy Observatory:

- 2008 – “Data Preservation and Access for the NRAO 140ft and 12m Telescopes,” Brian Sacash, B.S. Physics
- 2008 – “Applying Semantic Web Technologies and Ontologies to the NRAO Data Vault,” Bryan Murphy, B.S. Computer Science
- 2004 – “Data Quality Diagnostics for the GBT,” Ron DuPlain, B.S. Computer Engineering
- 2005 – “Frequency of Execution Metrics for GBT Observing,” Soumya Ghosh, M.S. Computer Engineering
- 2003 – “Enhancing the Portability of GBT Data,” Andy Cowan, B.S. Computer Science

Mentorship and Training

- 2000 – Developed course on “E-Business Models, Technologies and Strategy Development”, instructed 300+ consultants and managers with Nortel CRM Professional Services
- 1996 – American Meteorological Society Datastreme Project - educated teachers of grades 7-12 in fundamental meteorology, forecasting, and industrial meteorology applications

RESEARCH

Nicole's multidisciplinary research agenda explores **quality consciousness** (improving awareness, alignment and attention to increase the ability of *individuals* to improve quality and productivity) and **quality informatics** (data- and algorithm-intensive quality improvement), two themes that she is in the process of defining for the quality community. Quality consciousness and quality informatics are related in the same way that artificial intelligence is related to consciousness: we can improve our ability to control quality by improving the *cooperative awareness and attention* of humans and machines who must sift through ever increasing amounts of data to make goal-directed decisions.

One of Nicole's major professional contributions to date is **developing the method of Normalized Multi-Period Total Cost of Ownership (TCO)**, a new algorithm for value-based decision making in strategic cost management. It was presented at the 2010 Society for Photo-Optical Engineering conference, and the 2010 ASQ World Conference for Quality and Improvement as part of the Institute for Software Excellence (ISE), and received highest speaker ratings for the ISE. This method has now been successfully applied at two national laboratories to evaluate trade-offs between multi-million dollar alternatives for purchasing software. The first conference paper published in June 2010 describing this method has already been cited 10 times in the engineering instrumentation literature (according to SPIE Digital Library, Sept. 2011), indicating that there is wider interest in applying the new method. Nicole is currently completing a paper for the *Software Quality Professional* journal to introduce this method to the quality community.

PUBLICATIONS

Refereed Publications & Dissertation:

1. **Radziwill, N. M.** 2011: Using SIPOC to Define Your Research Agenda: A Tool for Junior Faculty. *ASQ Higher Education Brief*, December 2011.
2. **Radziwill, N. M.**, 2009: Topology, Evolution, and Network-Based Continuous Improvement of the Quality Management Journal. **Ph.D. Dissertation**, Indiana State University, 166 pages, AAT 3374728. http://www.bgsu.edu/colleges/technology/faculty/sinn/Radziwill_Dissertation.pdf
3. **Radziwill, N. M.**, Olson, D., Vollmar, A., Lippert, T., Mattis, T., Van Dewark, K. and J.W. Sinn, 2009: Starting from Scratch. *China Quality*, p. 59-61. [translated into Chinese by Wangfang Data] Available at <http://c.wanfangdata.com.cn/periodical-zhonggzl.aspx> (with subscription) or view a copy at http://nicoleradziwill.com/portfolio/Radz_StartFromScratchChinese.pdf
4. Crossley, J.H., DuPlain, R. F. & **Radziwill, N. M.**, 2009: Web Service Automates Access to Multiple Astronomical Data Sources. SPIE Newsroom, March 11, 2009; Retrieved from <http://spie.org/x34139.xml?highlight=x2418&ArticleID=x34139>.
5. **Radziwill, N. M.**, Olson, D., Vollmar, A., Lippert, T., Mattis, T., Van Dewark, K. and J.W. Sinn, 2008: Starting from Scratch. Feature article in *Quality Progress*, September 2008.
6. **Radziwill, N. M.**, 2006: Foundations for Quality Management of Scientific Data Products. *Quality Management Journal*, v13 Issue 2 (April), p. 7-21.
7. **Radziwill, N. M.** and A. L. Shelton, 2005: Push for Cheese – A Metaphor for Software Usability. *CrossTalk: The Department of Defense Journal of Software Engineering*. BackTalk Column, December 2005.
8. **Radziwill, N. M.**, 2005: An Ethical Theory for the Advancement of Professionalism in Software Engineering. *Software Quality Professional*, v7 Issue 3 (June), p. 14-23.

Refereed Publications (accepted and in revision):

9. **Radziwill, N. M.** and J. W. Sinn, 2011: A Network-Based Review of Research in the First 15 Years of the QMJ, 1993-2008. *Accepted by Quality Management Journal*; in revision.
10. **Radziwill, N. M.**, 2009: How Quality and Innovation Work Together. *Accepted by Quality Progress*; in revision.

Refereed Publications (in preparation):

1. **Radziwill, N. M.** & Kurtz, J. L. 2012: What is Quality Consciousness? Perspectives from ASQ's Past and Present. To be submitted to *Quality Progress* in December 2011.
2. **Radziwill, N. M.**, Benton, M. C., Kurtz, J. L., & Claggett, J. 2012: Quality Consciousness – An Introduction. To be submitted to *Quality Management Journal* in January 2012.
3. **Radziwill, N. M.** & Benton, M. C., 2012: A Pilot Study to Explore Mindfulness as a Dimension of Quality in the College Classroom. In preparation for ASQ journal *Quality Approaches in Higher Education*; to be submitted February 2012.
4. **Radziwill, N. M.** & DuPlain, R. F., 2012: Normalized Multi-Period Total Cost of Ownership (TCO): A Value-Based Measure to Inform Subsystem Trade Offs. In preparation for ASQ journal *Software Quality Professional*; to be submitted February 2012.

Essays/Popular Literature:

1. Radziwill, N. M., 2008-2012: **Quality and Innovation** (Blog, recognized by the American Society for Quality as one of its *ASQ Influential Voices* social media resources). 200+ posts at <http://qualityandinnovation.com>.
2. **Radziwill, N. M.**, 2011: **The Undergrad Jungle Book** – A Top Secret Collection of Startling Tips, Tricks and Disclosures to Help You Brave the Wild Terrain of Undergraduate Academics. ISBN-10 1456483188; ISBN-13 9781456483180. Available on Amazon at <http://amzn.to/dFHlaO>.
3. **Radziwill, N. M.**, 2010: **Disconnected**: Technology Addiction & the Search for Authenticity in Virtual Life. ISBN-10 1453632271; ISBN-13 978-1453632277. Available on Amazon at <http://amzn.to/dcMWp8>.

Book Chapters:

5. **Radziwill, N. M.** and R.F. DuPlain, 2009: Quality and Continuous Improvement in Knowledge Management. Chapter in *Knowledge Management Strategies for Business Development*, IGI Global.
6. **Radziwill, N. M.**, and R.F. DuPlain, 2008: A Model for Business Innovation in the Web 2.0 World. Invited Chapter in *Web 2.0 Business Models*, Springer.
7. **Radziwill, N. M.**, 2008: Implementing Communities of Practice to Manage Knowledge and Drive Innovation. Chapter in *Knowledge Management Strategies: A Handbook of Applied Technologies*. IDEA Group publishing.
8. **Radziwill, N. M.**, 2007: An Ethical Theory for the Advancement of Professionalism in Software Engineering. *Fundamental Concepts for the Software Quality Engineer, Volume 2*. ASQ Press: Milwaukee, WI.
9. **Radziwill, N. M.** and A. L. Shelton, 2006: The Impact of an Enterprise Software Architecture on Observing with the Robert C. Byrd Green Bank Telescope (GBT). Chapter in *Enterprise Architecture*, Institute of Chartered Financial Analysts of India (ICFAI) Press, Hyderabad, India.

10. **Radziwill**, N. M. and A. L. Shelton, 2006: TWiki as a Platform for Collaborative Software Development Management. Chapter in *Internet Collaboration Tools*, Institute of Chartered Financial Analysts of India (ICFAI) Press, Hyderabad, India.

Editor:

1. **Radziwill**, N. M., and Chiozzi, G., 2012: Software and Cyberinfrastructure for Astronomy II, Proceedings of SPIE, Vol. TBD.
2. **Radziwill**, N. M., and Bridger, A., 2010: Software and Cyberinfrastructure for Astronomy I, Proceedings of SPIE, Vol. 7740.
3. Bridger, A. and **Radziwill**, N. M., 2008: Advanced Software and Control for Astronomy II, Proceedings of SPIE, Vol. 7019.

Refereed Conference Proceedings:

1. **Radziwill**, N. M. & Simmons, R. A., 2012: Quality Without Borders – Service Learning for Young Quality Professionals. ASQ World Conference for Quality and Improvement (WCQI), Anaheim, CA, May 23.
2. Simmons, R. A. & **Radziwill**, N. M., 2012: Quality Showcase – Celebrating the Work of Young Quality Professionals. ASQ World Conference for Quality and Improvement (WCQI), Anaheim, CA, May 23.
3. **Radziwill**, N. M. & Doggett, M., 2012: Critical References and Texts in Technology Management. ATMAE Annual Meeting, Nashville TN, November 7.
4. **Radziwill**, N. M., 2012: Improving Operations Prioritization by Detecting Emerging Patterns in Trouble Tickets. SPIE Observatory Operations: Strategies, Processes and Systems IV, Amsterdam, July 1-6.
5. **Radziwill**, N. M. & Benton, M. C., 2012: Applying the Agile Organizing Framework to Astronomical Software Development. SPIE Software and Cyberinfrastructure for Astronomy II, Amsterdam, July 1-6.
6. Benton, M. C. & **Radziwill**, N. M., 2011: A Path for Exploring the Agile Organizing Framework in Technology Education. Agile 2011, Salt Lake City UT, August 9, 2011.
7. **Radziwill**, N. M. & Benton, M. C., 2011: Applying the Agile Organizing Framework to Team Management. International Conference on Software Quality (ICSQ), San Diego CA, February 8, 2011.
8. Benton, M. C. & N. M. **Radziwill**, 2010: Using the Agile Organizing Framework to Create Adaptive Learning Environments for Technology Development. ATMAE, Panama City Beach FL, October 29, 2010.
9. **Radziwill**, N. M. & Mitchell, L., 2010: Using the Baldrige Criteria for Observatory Strategic and Operations Planning. SPIE Observatory Operations: Strategies, Processes and Systems III, San Diego CA, June 26 - July 1.
10. **Radziwill**, N. M., 2010: The Baldrige Criteria for Performance Excellence for Quality Management in Observatories. SPIE Modeling, Systems Engineering, and Project Management for Astronomy IV, San Diego CA, June 26 - July 1.
11. **Radziwill**, N. M. & DuPlain, R., 2010: Using Value-Based Total Cost of Ownership (TCO) Measures to Inform Subsystem Trade-offs. SPIE Modeling, Systems Engineering, and Project Management for Astronomy IV, San Diego CA, June 26 - July 1.
12. DuPlain, R., Balsler, D. & **Radziwill**, N. M., 2010: Build Great Web Search Applications Quickly with Solr and Blacklight. SPIE Software and Cyberinfrastructure for Astronomy, San Diego CA, June 26 – July 1.
13. Hoffman, A., Rennoch, A., Schieferdecker, I., & **Radziwill**, N. M., 2009: A Generic Approach for Modeling Test Case Priorities with Applications for Test Development and Execution. 3rd IEEE International Conference on Secure Software Integration and Reliability Improvement, Shanghai, China, July 8-10, 2009.

14. Crossley, J., DuPlain, R. F., & N.M. **Radziwill**, 2009: Combining Google Sky and the Search Functionality of the Virtual Observatory (VO). Meeting of the American Astronomical Society, Long Beach, California, Nov. 2-5.
15. **Radziwill**, N. M., 2008: End to End Operations at the National Radio Astronomy Observatory. SPIE, Marseille France, Jun 23-28.
16. Crossley, J. H., Sjouwerman, L. O., Fomalont, E. B., and N. M. **Radziwill**, 2008: NRAO VLA Archive Survey. SPIE, Marseille France, Jun 23-28.
17. **Radziwill**, N.M., 2007: Beyond Usability – Improving Software Quality by Closing the “Expectation Gap”. International Conference on Software Quality (ICSQ), Lakewood CO, October 16-17.
18. DuPlain, R., **Radziwill**, N.M., & Shelton, A., 2007: A Rule-Based Data Quality Startup Using PyCLIPS. ADASS XVII, London UK, September 2007.
19. Crossley, J. H., Sjouwerman, L. O., Fomalont, E. B., & **Radziwill**, N. M. 2007: NRAO VLA Archive Survey. Bulletin of the American Astronomical Society, 39, 961. [Poster]
20. **Radziwill**, N. M., 2006: Cost of Quality (CoQ) Metrics for Telescope Operations and Project Management. SPIE, Orlando FL, May 25-31.
21. **Radziwill**, N. M., 2006: Valuation, Policy and Software Strategy. SPIE, Orlando FL, May 25-31.
22. DuPlain, R. F. and N.M. **Radziwill**, 2006: Autonomous Quality Assurance and Troubleshooting. SPIE, Orlando FL, May 25-31.
23. **Radziwill**, N.M. and A. L. Shelton, 2006: A Standard Python Environment for Software Applications at the Green Bank Telescope (GBT). SPIE, Orlando FL, May 25-31.
24. **Radziwill**, N.M. and R. DuPlain, 2005: A Framework for Telescope Data Quality Management. Proc. SPIE, Madrid, Spain, October 2-5, 2005.
25. Garwood, R., J. Braatz, P. Marganian and N. **Radziwill**, 2006: GBTIDL – A New Package for Reduction and Analysis of GBT Spectral Line Data. AAS, Washington DC, January 2006.
26. Marganian, P., B. Garwood, J. Braatz, N. **Radziwill** and R. Maddalena, 2005: GBTIDL - A New Package for Reduction and Analysis of GBT Spectral Line Data. ADASS XV, Madrid, October 2005.
27. O’Neil, K., A. Shelton, N. **Radziwill**, and R. Prestage, 2005: The Astronomer’s Integrated Desktop - A Unified Suite of Applications for Scheduling-Block Based Observing with the GBT. ADASS XV, Madrid, October 2005.
28. **Radziwill**, N. M., M. Mello, E. Sessoms, and A. Shelton, 2004: An Enterprise Architecture for the Green Bank Telescope (GBT). Proc. SPIE 5496, Glasgow Scotland, June 21-26, 2004.
29. **Radziwill**, N. M. and A. L. Shelton, 2004: TWiki as a Platform for Collaborative Software Development Management. Proc. SPIE 5496, Glasgow Scotland, June 21-26, 2004.
30. Cowan, A. W., N. **Radziwill**, D. Fleming and E. Sessoms, 2004: Enhancing the Portability of GBT Data, AAS 203rd Meeting, Seattle, WA, January 2004.
31. O’Neil, K., N. **Radziwill**, and R. Maddalena, 2003: Increasing the Accessibility of Green Bank Telescope Data, ADASS XII, Strasbourg, France, October 2003.
32. **Radziwill**, N. M. 1999. A Theoretical Approach to Air Traffic Delay Reduction Using Storm-Scale Numerical Weather Prediction. Preprints, 8th Conference on Aviation, Range, and Aerospace Meteorology, January 10–15, American Meteorological Society, Dallas, TX.
33. Capehart, W.J., N. M. **Radziwill** and C. A. Naus, 1999: The NCAR Land Surface Model examined in the contexts of PILPS 2(d) and a regional atmospheric prediction model, AMS 79th Annual Meeting, 14th Conference on Hydrology, Dallas, TX, 10-14 January.
34. Gutman, S., K. Holub and N. **Radziwill**, 1999: NOAA Ground-Based GPS Water Vapor Demonstration Network, International Union of Geophysics and Geodesy, 22nd General Assembly, Birmingham UK, July 18-30, 1999.

Refereed Newsletter Articles:

1. **Radziwill**, N. M., 2011: How Usability and (Software) Quality are Related. Quarterly Newsletter of the American Society for Quality (ASQ) Software Division, February 2011.

2. **Radziwill, N. M.**, 2010: Scrum for Kids. Quarterly Newsletter of the American Society for Quality (ASQ) Software Division, September 2010.
3. **Radziwill, N.M.**, 2009: Beyond Usability – Improving Software Quality by Closing the “Expectation Gap”. Quarterly Newsletter of the American Society for Quality (ASQ) Software Division, January 2009.
4. **Radziwill, N. M.**, 2009: The ITEA Criteria for Software Process Performance Improvement. Quarterly Newsletter of the American Society for Quality (ASQ) Software Division, January 2009.
5. **Radziwill, N. M.**, 2008: Evolving the ASQ Software Division towards 2015. Quarterly Newsletter of the American Society for Quality (ASQ) Software Division, June 2008.

Selected Internal Memos & Non-Refereed Publications:

6. Butler, B., B. Glendenning, E. Greisen, P. Jewell, J. McMullin, R. Prestage, N. **Radziwill**, D. Tody, 2005: Report for the NSF Review of NRAO Software – NRAO e2e Software Status and Plan, 2005 – 2009. Coordinated by Butler, Glendenning and **Radziwill**. Available from http://wiki.gb.nrao.edu/pub/Software/NsfReview2005/NRAOSoftwareStrategy_Sep20.pdf
7. **Radziwill, N. M.** and R. M. Prestage, 2005: GBT High Level Software Development Plan, FY2006-2007, September 28.
8. **Radziwill, N. M.**, R. M. Prestage and F. Ghigo, 2004: GBT Scheduling Block Concept, Specifications and Design. NRAO, August 6.
9. **Radziwill, N. M.**, 2004: High-Level Design for a Suite of Basic Continuum and Spectral Line Data Reduction Routines Using IDL. NRAO, July 28.
10. Prestage, R., P. Jewell, N. **Radziwill** and J. Lockman, 2003: The GBT Software Integrated Product Team. NRAO, May 28.
11. **Radziwill, N. M.**, 2001: Requirements for Automatic Registration of Web Portal Users and User Database for Clarify v10 Customer Relationship Management (CRM) Software. Nortel Networks, March 21.
12. **Radziwill, N. M.**, 2000: Managing an Effective Transition between Customer Relationship Management (CRM) and Relationship-Driven eBusiness. Whitepaper, Nortel Networks, 800 recipients. *Used as the basis for an international training program.*

Invited Talks/Expert Panels:

1. **Radziwill, N. M.**, 2012: What is Quality Consciousness? Presented to the Blue Ridge Section (1108) of the American Society for Quality (ASQ), Harrisonburg, VA, April 12.
2. **Radziwill, N. M.**, 2012: Agile Software Development and the Learning Organization. Invited Speaker, ASQ North Jersey Spring Quality Conference, April 5.
3. **Radziwill, N. M.** 2011: Unplugged – Disconnected from Social Media. Social Media Summit 2011, Harrisburg University of Science and Technology, Harrisburg PA, September 14th.
4. **Radziwill, N. M.** 2010: Make or Buy? A Value-Based Approach to TCO Analysis. Institute for Software Excellence, World Conference for Quality and Improvement (WCQI), St. Louis MO, May 26th.
5. **Radziwill, N. M.** 2010: The American Society for Quality Software Division 2010-2012. Presentation to IEEE SIG/ASQ Section 509, McLean VA, January 26.
6. **Radziwill, N. M.** 2009: The Executive’s Guide to Software with EASE. Institute for Software Excellence, World Conference for Quality and Improvement (WCQI), Minneapolis MN, May 19th.
7. **Radziwill, N. M.**, 2009: Why Outer Space Needs Software Engineers. Presentation to Undergraduate and Graduate students at Howard University, Washington DC, April 8th.
8. **Radziwill, N.M.**, 2007: Invited speaker to the January 2007 American Society for Quality (ASQ) Section 1108 meeting, Waynesboro, VA. Topic: Quality Issues in Data Analysis.

9. **Radziwill, N.M.**, 2006: Quality Management in Astronomical Software Systems. One of four invited keynote speakers for Astronomical Data Analysis and Software Systems (ADASS) conference, Tucson, AZ.
10. **Radziwill, N. M.**, 2006: Quality Management, Telescope Operations and Data Quality. Main speaker for a joint session between the National Optical Astronomy Observatory (NOAO) and the National Solar Observatory (NSO) on Quality Issues, Tucson AZ (January 27).
11. **Radziwill, N. M.** and R. DuPlain, 2004: Quality Control at the Green Bank Telescope. Presented to the Shenandoah Section of the American Society for Quality (ASQ), Winchester, VA November 9, 2004.
12. **Radziwill, N. M.** and J. L. Gray, 2001: Intelligent Customer Relationship Management. INFORM 2001 conference, Las Vegas NV, April 8-12, 2001.