

GENERAL INFORMATION	University Address: 302 Whittemore Hall ECE Department Virginia Tech Blacksburg VA 24061-0111 (540) 231-8849 mtj@vt.edu	Home Address: 2906 Wakefield Drive Blacksburg VA 24060 (540) 921-7477 (cell) marktjones25@me.com
	US Citizen Residence history:	Born March 15, 1965 in Newport News, VA Newport News VA; Redlands CA; Dallas TX; Blacksburg VA; Clemson SC; Durham NC; Chicago IL; Knoxville TN; Blacksburg VA
EMPLOYMENT EXPERIENCE	<p>Professor, Department of Electrical and Computer Engineering, Virginia Tech, 8/97-present (since 6/07 at the rank of Full Professor).</p> <p>Chief Technology Advisor, <i>Ocean Tomo, LLC</i>, August 2013 to December 2013.</p> <p>Professor, Department of Computer Science, University of Tennessee, 8/93-7/97 (at the rank of Assistant Professor).</p> <p>Assistant Computer Scientist, Mathematics and Computer Science Division, Argonne National Laboratory, Chicago, IL, 6/90 to 7/93.</p>	
EDUCATION	<p>Ph.D., Duke University, Computer Science, May 1990.</p> <p>B.S., Clemson University, Computer Science, summa cum laude, May 1986.</p>	
RECOGNITION AND AWARDS	<p>Virginia Bioinformatics Faculty Fellow 1st prize and Honorable Mention at AOL-CIT Research Day Virginia Tech College of Engineering Dean’s List for Teaching NSF CAREER Award University of Tennessee Science Alliance Award Atanasoff Best Paper Award Gordon Bell Prize Von Neumann Fellowship R. F. Poole Scholarship National Merit Scholar</p>	
EXPERT TESTIMONY	<p><u>Blackboard v. Desire2Learn</u> United States District Court for the Eastern District of Texas <i>Overview:</i> Patent infringement case involving Internet-based educational software employing role-based access control <i>Testified:</i> Jury trial (infringement and validity), injunction hearing, contempt hearing, and deposition (4 times)</p> <p><u>TechRadium v. Blackboard</u> United States District Court for the Eastern District of Virginia</p>	

United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving network-based emergency notification systems
Testified: Preliminary injunction hearing and deposition

Computer Associates v. Digex
Circuit Court for Prince George's County Maryland
Overview: Contract dispute involving enterprise management systems
Testified: Jury trial and deposition

Computer Associates v. Retired Persons Services
United States District Court for the Eastern District of Virginia
Overview: Contract dispute involving enterprise management systems
Testified: Deposition

DVSI v. University of Phoenix and Walden University
United States District Court for the Eastern District of Virginia
Overview: Patent infringement case involving network-based educational software employing digital rights management
Testified: Deposition (3 days)

VirnetX v. Microsoft
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving VPN software in Microsoft Windows and Microsoft's Unified Communications software
Testified: Jury trial (infringement and validity) and deposition (3 days)

TechRadium v. Twitter
United States District Court for the Southern District of Texas
Overview: Patent infringement case involving network-based notification systems
Testimony: Deposition

Bedrock Computer Tech v. Softlayer et al
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving data structures in the Linux operating system's network stack
Testimony: Jury trial v. Google (infringement and validity), Jury trial v. Yahoo (infringement and validity) and deposition (3 days)

CEATS v. Continental Airlines et al
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving Web-based interactive seat maps
Testimony: Jury trial (infringement and validity) and deposition (2 days)

VirnetX v. Cisco et al
United States District Court for the Eastern District of Texas
Overview: Patent infringement case involving secure communications, VPNs, and Voice-over-IP
Testimony: Jury trial v. Apple (infringement and validity), Jury trial v. Cisco (validity), and deposition (3 days)

Summit6 v. Research In Motion et al
United States District Court for the Northern District of Texas
Overview: Patent infringement case involving network-based photo uploading tools on smartphones and web browsers

Testimony: Jury trial v. Samsung (infringement and validity) and deposition (3 days)

Ericsson v. Samsung

International Trade Commission

Overview: Patent infringement case involving Java technology and touchscreen technology on smartphones

Testimony: Deposition

AT Engine Controls LTD. v. Goodrich Corp and Goodrich Pump & Engine Control Systems, Inc.

United States District Court for the District of Connecticut

Overview: Trade secret case involving an embedded computing system design for helicopter engine control

Testimony: Deposition

SmartFlash LLC. v. Apple, et. al.

SmartFlash LLC. v. Samsung, et. al.

United States District Court for the Eastern District of Texas

Overview: Patent infringement case involving digital rights management and content distribution

Testimony: Deposition (4 days)

Unwired Planet v. Apple

United States District Court for the Northern District of California

Overview: Patent infringement case involving several technologies related to mobile devices

Technology tutorial presentation to the Court

PUBLICATIONS

Journals

Hawkins JB, Jones MT, Plassmann PE, Thorley-Lawson DA, "Chemotaxis in Densely Populated Tissue Determines Germinal Center Anatomy and Cell Motility: A New Paradigm for the Development of Complex Tissues," *PLoS ONE* 6(12): e27650. doi:10.1371/journal.pone.0027650, 2011.

Jian Liu, T. E. Lockhart, M. Jones, and T. Martin, "Local Dynamic Stability Assessment of Motion Impaired Elderly Using Electronic Textile Pants," *IEEE Transactions on Automation Science and Engineering*, vol. 5, issue 4, pp. 696-702, October 2008.

Madhup Chandra, Mark Jones, and Thomas Martin, "E-Textiles for Autonomous Location Awareness," *IEEE Transactions on Mobile Computing*, vol. 6, issue 4, pp. 367-380, April 2007.

Zahi Nakad, Mark Jones, Thomas Martin, and Ravi Shenoy, "Using Electronic Textiles to Implement an Acoustic Beamforming Array: A Case Study," *Pervasive and Mobile Computing Journal*, vol. 3, issue 5, pp. 581-606, October 2007.

Mark Jones, Zahi Nakad, Paul Plassmann, Yanhua Yi, "The Use of Configurable Computing for Computational Kernels in Scientific Simulations," *Intern. Journal of Future Generation Computer Systems*, 22 (1-2), pp. 67-79 (2006).

- J.-R. Cheng, M. T. Jones, and P. E. Plassmann, "A Portable Software Architecture for Mesh-Independent Particle Tracking Algorithms," *Journal of Parallel Algorithms and Applications*, 19 (2-3), 145-161, 2004.
- Jae H. Park, Gary Friedman and Mark Jones, "Geographical Feature Sensitive Sensor Placement," *Journal of Parallel and Distributed Computing*, volume 64, 2004, pp. 815-825.
- D. Marculescu, R. Marculescu, N. Zamora, P. Stanley-Marbell, P. K. Khosla, S. Park, S. Jayaraman, S. Jung, C. Lauterbach, W. Weber, T. Kirstein, D. Cottet, J. Grzyb, G. Tröster, M. Jones, T. Martin, Z. Nakad, "Electronic Textiles: A Platform for Pervasive Computing," *Proceedings of the IEEE*, volume 91, number 12, December 2003, pp. 1995-2018.
- Kiran Puttegowda, David I. Lehn, Jae H. Park, P. Athanas and Mark Jones, "Context Switching in a Run-Time Reconfigurable System," *Journal of Supercomputing*, Kluwer Academic Press, June 2003, pp 239-257.
- Mark Jones, Shashank Mehrotra, and Jae Hong Park, "Tasking Distributed Sensor Networks," *Journal of High Performance Computing Applications*, Vol 16, pp. 243-257, 2002.
- Eloise Coupey and Mark Jones, "A Script-Based Approach for E-Commerce Applications," *Quarterly Journal of Electronic Commerce*, to appear.
- Eloise Coupey and Mark Jones, "Decision Making in the Electronic Commerce Environment: Issues and Approaches for Tool Development," *Quarterly Journal of Electronic Commerce*, Vol 1, pp. 215-228, 2000.
- Mark Jones and Karthik Ramachandran, "Unstructured Mesh Computations on CCMs," *Advances in Engineering Software*, Vol. 31, pp. 571-580, 2000.
- Mark Jones and Paul Plassmann, "Unstructured Mesh Computations on Networks of Workstations," *Computer-Aided Civil and Infrastructure Engineering*, Vol. 15, 196-208, 2000.
- Lori Freitag, Mark Jones, and Paul Plassmann, "A Parallel Algorithm for Mesh Smoothing," *SIAM Journal on Scientific Computing*, Vol 20, pp 2023-2040, 1999.
- William Barry, Mark Jones, and Paul Plassmann, "Parallel Adaptive Mesh Refinement Techniques for Plasticity Problems," *Advances in Engineering Software*, Vol. 19, pp. 217-229, 1998.
- Mark Jones and Paul Plassmann, "Adaptive Refinement of Unstructured Finite-Element Meshes," *Journal of Finite Elements in Analysis and Design*, Vol. 25, pp. 41-60, 1997.
- Mark Jones and Paul Plassmann, "Parallel Algorithms for Adaptive Mesh Refinement," *SIAM Journal of Scientific Computing*, Vol. 18, pp. 686-708, 1997.
- Robert Gjertsen, Mark Jones, and Paul Plassmann, "Parallel Heuristics for Improved, Balanced Graph Colorings," *Journal of Parallel and Distributed Computing*, Vol. 37, pp. 171-186, 1996.
- Mark Jones and Daniel Szyld, "Two-stage Multisplitting Methods with Overlapping Blocks," *Numerical Linear Algebra with Applications*, Vol. 3, pp. 113-124, 1996.
- Mark Jones and Paul Plassmann, "An Improved Incomplete Cholesky Factorization," *ACM Trans. on Mathematical Software*, Vol. 21, pp. 5-17, 1995.

- Mark Jones and Paul Plassmann, "Algorithm 740: Fortran Subroutines to Compute Improved Incomplete Cholesky Factorizations," *ACM Trans. on Mathematical Software*, Vol. 21, pp. 18-19, 1995.
- Mark Jones and Paul Plassmann, "Results for Parallel Unstructured Mesh Computations," *Computing Systems in Engineering*, Vol. 5, pp. 297-309, 1994.
- Mark Jones and Paul Plassmann, "Scalable Iterative Solution of Sparse Linear Systems," *Parallel Computing*, Vol. 20, pp. 753-773, 1994.
- Mark Jones and Merrell Patrick, "Factoring Indefinite Matrices on High-Performance Architectures," *SIAM Journal on Matrix Analysis and Applications*, Vol. 15, pp. 273-283, 1994.
- Mark Jones and Paul Plassmann, "Computation of Equilibrium Vortex Structures for Type-II Superconductors," *Int. J. Supercomputing Applications*, Vol.7.2, pp. 129-143, 1993.
- Mark Jones and Paul Plassmann, "A Parallel Graph Coloring Heuristic," *SIAM J. on Scientific and Statistical Computing*, Vol. 14, pp. 654-669, 1993.
- Mark Jones and Merrell Patrick, "Bunch-Kaufman Factorization for Real Symmetric Indefinite Banded Matrices," *SIAM Journal of Matrix Analysis and Applications*, Vol. 14, pp. 553-559, 1993.
- Mark Jones and Merrell Patrick, "The Lanczos Algorithm for the Generalized Symmetric Eigenproblem on Shared-Memory Architectures," *Applied Numerical Mathematics*, Vol. 12, pp. 377-389, 1993.
- Daniel Szyld and Mark Jones, "Two-stage and Multi-splitting Methods for the Parallel Solution of Linear Systems," *SIAM Journal of Matrix Analysis and Applications*, Vol.13, pp. 671-679, 1992.

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- Joo Hong Lee, Mark T. Jones, and Paul E. Plassmann, "Scalable Solution of Radiative Heat Transfer Problems by the Photon Monte Carlo Algorithm on Hybrid Computing Architectures," Proceedings of the 2012 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'12: July 16-19, 2012, USA), Volume 1, pp. 67-75.
- Joo Hong Lee, Mark T. Jones, Paul E. Plassmann, "A Hybrid Software Framework for the GPU Acceleration of Multi-Threaded Monte Carlo Applications," Proceedings of the 2010 International Conference on Scientific Computing (CSC'11: July 18-21, 2011, USA), pp. 70-76.
- Joo Hong Lee, Mark T. Jones, Paul E. Plassmann, "An Efficient Shared Memory Programming Model for Biological Systems Simulation", 2010 International Conference on Parallel and Distributed Processing Techniques and Applications, July 12-15, 2010, pp. 315-319.
- Joo Hong Lee, Mark T. Jones, Paul E. Plassmann, "A Scalable Distributed Memory Programming Model for Large-Scale Biological Systems Simulation", 2010 International Conference on Scientific Computing, July 12-15, 2010, pp. 251-256.
- Joo Hong Lee, Mark T. Jones, Paul E. Plassmann, "A Hybrid Parallel Programming Model for Large-Scale Biological Systems Simulation", Proceedings of Para 2010, State of the Art in Scientific and Parallel Computing, June 6-9, 2010.

M.T. Jones and T.L. Martin, "Hardware and Software Architectures for Electronic Textiles," a chapter in "Smart Clothing: Technology and Applications", ed. Gilsoo Cho, 2010, pp. 135-152.

M. Quirk, T. Martin, and M. Jones, "Inclusion of Fabric Properties in the E-Textile Design Process," *Proc. 13th Int'l Symp. Wearable Computers (ISWC 09)*, IEEE CS Press, 2009, pp. 34-40.

Tom Martin, Mark Jones, Justin Chong, Meghan Quirk, Kara Baumann, Leah Passauer, "Design and Implementation of an Electronic Textile Jumpsuit," *Proc. 13th Int'l Symp. Wearable Computers (ISWC 09)*, IEEE CS Press, 2009, pp. 157-158.

M. Shelburne, C. Patterson, P. Athanas, M. Jones, B. Martin, and R. Fong, "Metawire: Using FPGA Configuration Circuitry to Emulate a Network-on-Chip", *Field Programmable Logic and Applications*, September 2008, pp. 257-262.

M. Jones, T. Martin, and B. Sawyer, "An Architecture for Electronic Textiles", *Proceedings of the ICST Third International Conference on Body Area Networks*, 2008, Article 24, 4 pages.

David Graumann, Giuseppe Raffa, Meghan Quirk, Braden Sawyer, Justin Chong, Mark Jones, Thomas Martin, "Large Surface Area Electronic Textiles for Ubiquitous Computing: A Systems Approach", *MobiQuitous '07*, August 2007, pp. 1-8.

George Eichinger, Tom Martin, and Mark Jones, "From Circuit to Sewing in One Click," *ISWC 2007*.

J. Edmison, D. Lehn, M. Jones, and T. Martin, "An E-Textile Based Automatic Activity Diary for Medical Annotation and Analysis," *2006 Workshop on Body Sensor Networks*, April 2006, pp. 131-134.

C. Einsmann, M. Quirk, B. Muzal, B. Venkatramani, T. Martin, and M. Jones, "Modeling a Wearable Full-body Motion Capture System," *Proceedings of the 2005 IEEE International Symposium on Wearable Computers (ISWC)*, October 2005, pp. 144-151.

J. Edmison, D. Lehn, M. Jones, and T. Martin, "Users' Perceptions of an Automatic Activity Diary for Medical Annotation and Analysis," *Proceedings of the 2005 IEEE International Symposium on Wearable Computers (ISWC)*, October 2005, pp. 192-193.

M. Chandra, M. Jones, and T. Martin, "E-Textiles for Autonomous Location Awareness," *Proceedings of the 2004 International Symposium on Wearable Computers*, Arlington, VA, Oct. 31-Nov. 3, 2004, pp. 48-55.

Zahi Nakad, Mark Jones, and Tom Martin, "Fault Tolerant Networks for Electronic Textiles," *CIC 2004*, Las Vegas, June 2004, pp. 100-106.

Zafer Gurdal, Tom Hartka, Mark Jones, and Sun Wook Kim, "A Reconfigurable Approach to Structural Engineering Design Computations," *ERSA 2004*, Las Vegas, June 2004.

Jones, Mark T., and Eloise Coupey, "An Agent-based Simulation Prototype for Evaluating Health Behavior Interventions," *METMBS 2004*, Las Vegas, June 2004.

Thomas Martin, Mark Jones, Joshua Edmison, Tanwir Sheikh, and Zahi Nakad, "Modeling and Simulating E-Textile Applications" *Proceedings of the ACM Conference on Languages, Compilers, and Tools for Embedded Systems*, June 11-13, 2004, pp. 10-19.

Lehn, D., C. Neely, K. Schoonover, T. Martin, and M. Jones, "e-TAGS: e-Textile Attached Gadgets." *Communication Networks and Distributed Systems Modeling and Simulation Conference*, January 2004.

M. Abdalla, S. W. Kim, Z. Gürdal, and M. T. Jones, "Multigrid Accelerated Cellular Automata for Design Optimization of Continuum Structures: A 1-D Implementation", 45th *AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics & Materials Conference*, April 2004.

Zahi Nakad, Mark Jones, and Tom Martin, "Communication in Electronic Textile Systems," 2003 *International Conference on Communications in Computing (CIC 2003)*, pp. 37-43.

Mark Jones, Paul Plassmann, Zahi Nakad, and Yanhua Yi, "The Use of Configurable Computing in Scientific Simulations," 2003 *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'03)*, pp. 520-524.

Mark Jones, Mukta Nandwani, Jae Park, Paul Plassmann, and Yanhua Yi, "Examining the Communication Requirements of Remote Scientific Visualization," 2003 *International Conference on Communications in Computing (CIC 2003)*, pp. 31-36.

T. Martin, M. Jones, J. Edmison, and R. Shenoy, "Towards a Design Framework for Wearable Electronic Textiles," *International Society for Wearable Computers 2003*, pp. 190-199.

M. Jones., T. Martin, Z. Nakad, R. Shenoy, T. Sheikh, D. Lehn, and J. Edmison, "Analyzing the Use of E-textiles to Improve Application Performance," *IEEE Vehicular Technology Conference 2003, Symposium on Wireless Ad hoc, Sensor, and Wearable Networks*.

Mark Jones, Tom Martin, and Zahi Nakad, "A Service Backplane for e-Textiles," *MAMSET 2002: Proc. Workshop on Modeling, Analysis and Middleware Support for Electronic Textiles*, 6 October 2002, pp. 15-22.

J. Edmison, M. Jones, Z. Nakad and T. Martin "Using piezoelectric materials for wearable electronic textiles," *Wearable Computers, 2002. (ISWC 2002). Proceedings. Sixth International Symposium on* pp. 41-48, 2002.

Mark Jones, Lucas Scharf, Jon Scott, Christian Twaddle, Matthew Yaconis, Kuan Yao, Peter Athanas, and Brian Schott, "Implementing an API for Distributed Adaptive Computing Systems," *Proceedings of IEEE Symposium on Field-Programmable Custom Computing Machines*, Napa, CA, April, 1999).

Jason Hess, David Lee, Scott Harper, Peter Athanas, and Mark Jones, "Implementation of a Prototype Reconfigurable Router," *Proceedings of IEEE Symposium on Field-Programmable Custom Computing Machines*, Napa, CA, April, 1999, to appear 7 pages).

David Lee, Mark Jones, Scott Midkiff, and Peter Athanas, "Towards Active Hardware," *Lecture Notes in Computer Science 1653*, Springer-Verlag, pp. 180-187, 1999.

Lori Freitag, Mark Jones and Paul Plassmann, "The Scalability of Mesh Improvement Algorithms," *The IMA Volumes in Mathematics and its Applications*, Vol. 105, pp. 185-211, 1998.

Lori Freitag, Mark Jones, and Paul Plassmann, "An Efficient Parallel Algorithm for Mesh Smoothing," *Proceedings of the 4th International Meshing Roundtable*, Albuquerque, NM, pp. 47-58, 1995.

Mark Jones and Paul Plassmann, "The efficient parallel iterative solution of large sparse linear systems," *The IMA Volumes in Mathematics and its Applications*, Vol. 56, pp. 229-245, 1993.

Mark Jones and Paul Plassmann, "Solution of Large, Sparse Systems of Linear Equations in Massively Parallel Applications," *Supercomputing '92 Proceedings*, IEEE Computer Society, pp. 551-560, 1992.

Mark Jones, Merrell Patrick, and Robert Voigt, "A Language Comparison for Scientific Computing on MIMD Architectures," *Proceedings of the IFIP Working Conference: Aspects of Computation on Asynchronous Parallel Processors*, M. H. Wright (Editor), Elsevier Science Publishers B. V. (North-Holland), IFIP, pp. 55-67, 1989.

Other

J. Edmison, M. Jones, T. Lockhart, and T. Martin, "An E-Textile System for Motion Analysis," *Wearable eHealth Systems for Personalised Health Management: State of the Art and Future Challenges*, Studies in Health Technology and Informatics, vol. 108, August 2004, pp. 292-301

Eloise Coupey and Mark Jones, Developing Dynamic Decision Support: Opportunities, Issues and Approaches, Twenty-Third Annual International Computer Software and Applications Conference, October 1999.

Mark Jones, Michael Langston, and Padma Raghavan, "Tools for Mapping Applications to CCMs," *Proceedings of SPIE: Configurable Computing: Technology and Applications*, Boston, MA, SPIE, pp. 72-80, Nov. 1998.

Lori Freitag, Mark Jones, and Paul Plassmann, "Mesh Component Design and Implementation within SUMAA3d," *Proceedings of SIAM Workshop on Object Oriented Methods for Inter-operable Scientific and Engineering Computing*, SIAM Publications, to appear (page number/total unknown until typesetting).

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Lori Freitag, Mark Jones, and Paul Plassmann, "Parallel Adaptive Mesh Refinement with the SUMAA3d Project," *Proceedings of the ICASE/LaRC Workshop on Adaptive Grid Methods*, 1995.

Lori Freitag, Mark Jones, and Paul Plassmann, "Parallel Algorithms for Unstructured Mesh Computation," *Proceedings of Fifth SIAM Applied Linear Algebra Conference*, SIAM Publications, pp. 123-127, 1994.

Mark Jones and Paul Plassmann, "Parallel Algorithms for the Adaptive Refinement and Partitioning of Unstructured Meshes," *Proceedings of the Scalable High-Performance Computing Conference*, IEEE, Ed. Dongarra and Walker, pp. 478-485, 1994.

Lori Freitag, Mark Jones, and Paul Plassmann, "New Techniques for Parallel Simulation of High-Temperature Superconductors," *Proceedings of the Scalable High-Performance Computing Conference*, IEEE, Ed. Dongarra and Walker, pp. 726-733, 1994.

Lori Freitag, Mark Jones, and Paul Plassmann, "New Advances in the Modeling of High-Temperature Superconductors," *Proceedings of the 1994 International Simulation Conference – Grand Challenges in Computer Simulation*, The Society for Computer Simulation, pp. 208-213, 1994.

Mark Jones and Paul Plassmann, "Software for the Generalized Eigenproblem on Distributed Memory Architectures," *Proceedings of the Lanczos Centenary Conference*, Ed. Chu, et. al., pp. 322-325, 1994.

Lori Freitag, J. Garner, Mark Jones, Paul Plassmann, "Recent Computational Results on the Equilibrium Vortex Configurations on Type-II Superconductors," *Proceedings of the Second DELTA Applications Workshop*, Ed. P. Messina, pp. 93-98, March 1993.

Tom Canfield, Mark Jones, Paul Plassmann, and Michael Tang, "Modeling Piezoelectric Crystals on the Intel DELTA," *Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing*, pp. 156-159, 1993.

Mark Jones and Paul Plassmann, "Recent Results in the Modeling of Type-II Superconductors on Massively Parallel Computers," *Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing*, pp. 147-151, 1993.

Mark Jones and Paul Plassmann, "Parallel Solution of Unstructured, Sparse Systems of Linear Equations," *Proceedings of the Sixth SIAM Conference on Parallel Processing for Scientific Computing*, pp. 471-475, 1993.

Tom Canfield, Mark Jones, Paul Plassmann, and Michael Tang, "Thermal Effects on the Frequency Response of Piezoelectric Crystals," *New Methods in Transient Analysis*, Eds. P. Smolinski, W. K. Liu, G. Hulbert, and K. Tamma, PVP-Vol. 246 and AMD-Vol. 143, pp. 103-108, ASME, New York, 1992.

Mark Jones and Paul Plassmann, "The Effect of Many Color Orderings on the Convergence of Iterative Methods," *Proceedings of the Copper Mountain Conference on Iterative Methods*, April 1992.

Mark Jones and Paul Plassmann, "Modeling piezoelectric crystals on the Intel DELTA," *Proceedings of the Intel DELTA Applications Workshop*, Cal Tech, pp. 97-105, 1992.

RESEARCH GRANTS AND CONTRACTS

NSF, "SHB: Small: Collaborative Research: Electronic textiles for ambulatory health monitoring," \$306,083, 7/1/2011-6/30/2014.

DARPA, "RECE," With BBN, \$30,000, 4/16/09-10/16/09.

NSF, "Investigating a Novel Embedded Processor Architecture for Electronic Textiles in Wearable and Pervasive Computing," \$220,000, 12/1/08-11/30/10.

NSF, "Fundamental Algorithms to Enable the Simulation of Multi-Scale Biological Systems," \$200,000, 9/1/07-8/31/10.

AFRL, "Phase II: Amorphous Soft-Core Processor for Hardware Anti-Tamper," ~\$230,000, 11/1/06-10/31/08.

Intel, "E-Textile Rug for Gait Analysis, People Tracking and Emergency Directions," \$15,000, 6/1/06-12/31/06.

Carilion, "Quantitative Measurement and Modeling of Early Events in Influenza Pathogenesis," \$20,000, 7/1/05-6/30/06.

AFRL, "Phase I: Wearable Computer for Enhanced Situation Awareness," \$30,000, 5/1/06-1/1/07.

AFRL, "Phase I: Amorphous Soft-Core Processor for Hardware Anti-Tamper," \$35,000, 1/1/06-11/1/06.

MDA, “Phase I: Secure Software Platform for Real-Time Software Anti-Tamper,” \$29,994, 6/1/06-11/1/06.

National Science Foundation (NSF), “CRI”, (e-textiles equipment), ~\$80,000, 8/05-7/07.

Harris Corporation, “Exploiting the Reconfigurability of a Software-Defined Radio Platform,” \$161,070, 9/1/05-6/30/06.

DARPA, “Phase I: Technology for Trusted Circuits,” \$31,000, 3/1/05-9/15/05.

Harris Corporation, “Partial Reconfiguration Support for the Harris Programmable Modem Platform,” \$73,448, 12/01/04-6/30/05.

NSF, “Phase I: An Electronic Textile System for Gait Analysis”, \$33,000, 1/1/2005-6/30/2005.

Office of Naval Research (ONR). “AWINN.” \$452,300, 12/20/04-7/31/06.

Office of Secretary of Defense, “Phase II: Reconfigurable Processor Technology for Software Protection,” SBIR Subcontract with Luna Innovations, \$237,581, 6/04-5/06.

NSF, REU Supplement to ITR: Tailor-Made: Design of e-Textile Architectures for Wearable Computing, NSF, \$12,000, 6/1/2005 – 8/31/2005.

Office of Secretary of Defense, “Phase I: Reconfigurable Processor Technology for Software Protection,” SBIR Subcontract with Luna Innovations, \$33,000, 8/03-2/04.

National Science Foundation (NSF), “ITR: Tailor-Made: Design of e-Textile Architectures for Wearable Computing”, \$399,000, 8/02-8/06.

NSF, REU Supplement to above grant, \$10,000.

NSF, REU Supplement to above grant, \$6,000.

NSF, “A Toolbox of Scalable Algorithms and Software for Advanced Scientific Computing Applications”, \$300,000, 4/03-4/06.

Defense Advanced Research Projects Agency (DARPA). Computational Fabrics, \$217,000, 3/01-12/02. Subcontract from ISI/University of Southern California.

Office of Naval Research (ONR). Secure Configurable Radio. \$751,000, 4/00-4/04.

NSF, SUCCEED, \$33,000, 9/1/01-8/31/02.

National Science Foundation (NSF). Parallel unstructured mesh algorithms, Amount: \$145,023, 10/99-9/02.

DARPA, Development of algorithms and software for the control of distributed, dynamic sensor networks, Amount \$411,625, 6/99-6/02.

DARPA, Subcontact with USC/ISI. Development of algorithms and runtime software for systems of configurable computers, Amount \$160,000, 10/00-10/01.

Department of Energy, Development of algorithms and software for massively parallel architectures, Amount: \$145,000, 12/98-11/01.

DARPA, Development of Java-based tools and applications for fast, flexible run-time reconfiguration of configurable computing devices, Amount: \$345,574, 9/99-9/01.

DARPA, Development of an application programming interface, algorithms, and applications for run-time reconfiguration on novel adaptive computing architectures, Amount: \$250,000, 6/99-6/01.

Lockheed-Martin/Sanders, A Wireless Link for Remote Telemetry of Compact Airborne System, \$125,000, 5/00-4/01.

DARPA, Development of algorithms and runtime software for systems of configurable computers, Amount \$169,792, 11/99-10/00.

National Security Agency (NSA), Software for the translation of JBits FPGA programs to EDIF programs, Amount \$75,000, 9/99-7/00.

DARPA, Construction of an API & applications for the control of distributed systems of configurable computing nodes, Amount \$162,886, 9/98-10/99.

NSF, Career Award: Parallel algorithms and software for unstructured mesh computations, Amount: \$125,881, 7/96-7/99.

Air Force Research Laboratory, Research and development of an Internet-based, interactive, decision making program, Amount: \$97,425, 11/97-5/99.

NSF, Equipment funding for a 16-node cluster of configurable computers, Amount: \$85,000, 12/97-12/98.

NSF, Scientific applications in a distributed computing environment, Amount: \$318,807, 7/95-7/98.

NSF, Equipment funding for an ATM-based cluster of workstations, Amount, \$100,000, 1/96-12/96.

NSF, Workshop organized at Argonne National Laboratory, Amount, \$10,000, 1996.

PATENTS

Inventor, United States Patent No. 8,473,754, Hardware-Facilitated Secure Software Execution Environment.

SOFTWARE

SLAAC/ACS API (4/99): Software for the control of complex systems of configurable computing nodes and high-speed networks. This code is being distributed to the ACS community. Developed in Configurable Computing Laboratory with Peter Athanas.

BlockSolve (4/93 & 1/96): Software for solving large sparse linear systems on distributed memory architectures. This code has been distributed via netlib and ANL ftp and has been accessed by several hundred people as of 4/4/99. Developed at Argonne National Laboratory with Paul Plassmann.

LANZ (10/90): Software for solving the generalized eigenproblem on shared memory architectures. This code has been distributed via netlib and NASA and has been accessed by over 10,000 people as of 4/4/99. Developed at Duke University and Argonne National Laboratory with Merrell Patrick.

TEACHING RESPONSIBILITIES

Computer Programming
 ECE 3574, *Applied Software Design*
 ECE 2574, *Data Structures*
 ECE 1574, *Engineering Problem Solving with C++*
 Computer Simulation and Modeling

CS 371, Numerical Analysis
CS 594, Computational Modeling
Computer Network, Architecture, and Organization
ECE 2504, Introduction to Computer Engineering
CS 594, Internetworking with TCP/IP
ECE 4504, Computer Organization
ECE 4534, Design of Embedded Systems
ECE 5504 (formerly ECE 5515), Computer and Network Architectures
ECE Special Studies: Configurable Computing, E-Textiles
ECE 5984, Java-Based Configurable Computing
ECE 6504, Applications of Parallel and Distributed Computing, TV course.
CS 530, Computer Systems Organization
CEO of DISC, a student-run virtual corporation, for Fall 1998 and Spring 1999.
