

Curriculum Vitae: Jason Xiaowen Liu

(Last updated: June 2014)

EDUCATION

- Ph.D.** *Dartmouth College (Hanover, NH), Computer Science, 2003*
M.S. *College of William & Mary (Williamsburg, VA), Computer Science, 2000*
B.S. *Beijing University of Technology (Beijing, China), Computer Science, 1993*

FULL-TIME ACADEMIC EXPERIENCE

- Florida International University (FIU)**
Associate Professor 2011 – current
Assistant Professor 2007 – 2011
Colorado School of Mines (CSM)
Assistant Professor 2004 – 2007
University of Illinois, Urbana-Champaign (UIUC)
Postdoctoral Research Associate 2003 – 2004

PART-TIME ACADEMIC EXPERIENCE

- Dartmouth College**
Graduate Research/Teaching Assistant 1996 – 2003
College of William and Mary
Graduate Research Assistant 1995 – 1996

NON-ACADEMIC EXPERIENCE

- Institute for Security Technology Studies, Dartmouth College**
Research Scientist 2003
Icon Technologies, China
Co-founder & Chief Computer Engineer 1993 – 1994
Institute of Mathematics, China Academy of Science
Research Intern 1993

JOURNAL PUBLICATIONS

1. **Cluster-based spatio-temporal background traffic generation for network simulation.** Ting Li and Jason Liu. Submitted to *ACM Transactions of on Modeling and Computer Simulation*, under minor revision.
2. **Symbiotic network simulation and emulation.** Miguel Erazo, Rong Rong, and Jason Liu. Submitted to *ACM Transactions of on Modeling and Computer Simulation*, under review.
3. **A rate-based TCP traffic model to accelerate network simulation.** Ting Li, Nathanael Van Vorst, and Jason Liu, *Transactions of the Society for Modeling and Simulation International, Simulation*, 89(4):466-480, 2013. DOI: 10.1177/0037549712469892.
4. **OpenFlow-based flow-level bandwidth provisioning for CICQ switches.** Hao Jin, Deng Pan, Jason Liu, and Niki Pissinou, *IEEE Transactions on Computers*, 62(9):1799-1812, 2013. DOI: 10.1109/TC.2012.167.

5. **PrimoGENI for hybrid network simulation and emulation experiments in GENI.** Nathanael Van Vorst, Miguel Erazo, and Jason Liu, *Journal of Simulation*, 6:179-192, 2012. DOI: 10.1057/JOS.2012.5.
6. **A model-driven emulation approach to large-scale TCP performance evaluation.** Miguel A. Erazo, and Jason Liu. *International Journal of Communication Networks and Distributed Systems (IJCND)*, 5(1/2):130-150, 2010. DOI: 10.1504/IJCND.2010.033971.
7. **Real-time network simulation support for scalable routing experiments.** Yue Li, Jason Liu, and Raju Rangaswami. *International Journal of Simulation and Process Modelling, Special Issue on Parallel and Distributed Simulation*, 5(2):146-156, 2009. DOI: 10.1504/IJSPM.2009.028627.
8. **Parallel hybrid network traffic models.** Jason Liu and Yue Li. *Simulation: Transactions of the Society for Modeling and Simulation International*, 85(4):271-286, 2009. DOI: 10.1177/0037549708099996.
9. **A real-time network simulation infrastructure based on OpenVPN.** Jason Liu, Yue Li, Nathanael Van Vorst, Scott Mann, and Keith Hellman, *Journal of Systems and Software*, 82(3):473-485, 2009. DOI: 10.1016/J.JSS.2008.08.015.
10. **On the performance of a hybrid network traffic model.** Jason Liu and Yue Li. *Simulation Modelling Practice and Theory*, 16(6):656-669, 2008. DOI: 10.1016/J.SIMPAT.2008.04.007.
11. **Experimental evaluation of wireless simulation assumptions.** Calvin Newport, David Kotz, Yougu Yuan, Robert S. Gray, Jason Liu, and Chip Elliott. *Simulation: Transactions of the Society for Modeling and Simulation International*, 83(9):643-661, 2007. DOI: 10.1177/0037549707085632.
12. **RINSE: the real-time immersive network simulation environment for network security exercises (extended version).** Michael Liljenstam, Jason Liu, David Nicol, Yougu Yuan, Guanhua Yan, and Chris Grier. *Simulation: Transactions of the Society for Modeling and Simulation International*, 82(1):43-59, 2006. DOI: 10.1177/0037549706065544.
13. **Empirical validation of wireless models in simulations of ad hoc routing protocols.** Jason Liu, Yougu Yuan, David M. Nicol, Robert S. Gray, Calvin C. Newport, David Kotz, and Luiz Felipe Perrone. *Simulation: Transactions of the Society for Modeling and Simulation International*, 81(4):307-323, 2005. DOI: 10.1177/0037549705055017.
14. **Composite synchronization in parallel discrete-event simulation.** David M. Nicol and Jason Liu. *IEEE Transactions on Parallel and Distributed Systems*, 13(5):433-446, May 2002. DOI: 10.1109/TPDS.2002.1003854.

CONFERENCE/WORKSHOP PUBLICATIONS

1. **A simulation and emulation study of SDN-based multipath routing for fat-tree data center networks.** Eric Jo, Linda Butler, Deng Pan, and Jason Liu. Submitted to the 2014 Winter Simulation Conference (WSC'14), Savannah, Georgia, December 7-11, 2014, under review.
2. **Performance study of a minimalistic simulator on XSEDE massively parallel systems.** Rong Rong, Jiang Hao, Jason Liu. In *Proceedings of the 3rd Annual*

- conference of the Extreme Science and Engineering Discovery Environment (XSEDE'14)*, Atlanta, Georgia, July 13-18, 2014, (to appear).
3. **GPU-assisted hybrid network traffic model.** Jason Liu, Yuan Liu, Zhihui Du, and Ting Li. In *Proceedings of the 2014 ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (SIGSIM-PADS)*, Denver, CO, May 2014. (**Best Paper Award**)
 4. **Toward PrimoGENI Constellation for distributed at-scale hybrid network test.** Jason Liu, Mohammad Abu Obaida, and Fernando Dos Santos. In *Proceedings of the 3rd GENI Research and Educational Experiment Workshop (GREE 2014)*, Atlanta, GA, March 2014.
 5. **Real-time scheduling of logical processes for parallel discrete-event simulation.** Jason Liu. In *Proceedings of the 2013 Winter Simulation Conference (WSC)*, Washington, DC, December 2013, pp. 2959-2971.
 6. **Leveraging symbiotic relationship between simulation and emulation for scalable network experimentation.** Miguel A. Erazo and Jason Liu. In *Proceedings of the 2013 ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (SIGSIM-PADS)*, Montreal, Canada, May 2013, pp. 79-90.
 7. **Joint host-network optimization for energy-efficient data center networking.** Hao Jin, Tosmate Cheochnngarn, Dmita Levy, Alex Smith, Deng Pan, Jason Liu, and Niki Pissinou. In *Proceedings of the 2013 IEEE 27th International Symposium on Parallel & Distributed Processing (IPDPS)*, Boston, MA, May 2013, pp. 623-634.
 8. **Depth-first worst-fit search based multipath routing for data center networks.** Tosmate Cheochnngarn, Hao Jin, Jean Andrian, Deng Pan, and Jason Liu, In *Proceedings of the 2012 IEEE Global Communications Conference (GLOBECOM 2012)*, Anaheim, CA, December 2012, pp. 2821-2826.
 9. **Hierarchical composite synchronization.** Jason Liu and Rong Rong, In *Proceedings of the 26th Workshop on Principles of Advanced and Distributed Simulation (PADS 2012)*, Zhangjiajie, China, July 2012, pp. 3-12.
 10. **Realizing large-scale interactive network simulation via model splitting.** Nathanael Van Vorst and Jason Liu, In *Proceedings of the 26th Workshop on Principles of Advanced and Distributed Simulation (PADS 2012)*, Zhangjiajie, China, July 2012, pp. 120-129.
 11. **Toward comprehensive and accurate simulation performance prediction of parallel file systems.** Miguel Erazo, Ting Li, Jason Liu and Stephan Eidenbenz, In *Proceedings of the 42nd Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN 2012)*, Boston, MA, June 2012, 12 pages.
 12. **Simulation studies of OpenFlow-based in-network caching strategies.** Ting Li, Nathanael Van Vorst, Rong Rong, and Jason Liu, In *Proceedings of the 15th Communications and Networking Simulation Symposium (CNS 2012)*. Orlando, FL, March 2012. 6 pages. (**Best Paper Award**)
 13. **How low can you go? Spherical routing for scalable network simulations.** Nathanael Van Vorst, Ting Li, and Jason Liu, In *Proceedings of the 19th Annual Meeting of the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS 2011)*, Raffles Hotel, Singapore, July 2011, pp. 259-268.

14. **PrimoGENI: integrating real-time network simulation and emulation in GENI**, Nathanael Van Vorst, Miguel Erazo, and Jason Liu. In *Proceedings of the 25th Workshop on Principles of Advanced and Distributed Simulation (PADS 2011)*, Nice, France, June 2011, 9 pages.
15. **OpenFlow based flow level bandwidth provisioning for CICQ switches**. Hao Jin, Deng Pan, Jason Liu, and Niki Pissinou, In *Proceedings of 2011 IEEE International Conference on Computer Communications (INFOCOM 2011) Mini-Conference*, Shanghai, China, April 2011, 476-480.
16. **Model-driven network emulation with virtual time machine**. Jason Liu, Raju Rangaswami, and Ming Zhao. In *Proceedings of the 2010 Winter Simulation Conference (WSC 2010)*, Baltimore, MD, USA, December 2010, pp. 688-696.
17. **On enabling real-time large-scale network simulation in GENI: The PrimoGENI approach (poster abstract)**. Miguel A. Erazo and Jason Liu, In *Proceedings of the 3rd International ICST Conference on Simulation Tools and Techniques (SIMUTools 2010)*, Torremolinos, Malaga, Spain, March 2010, 2 pages.
18. **A large-scale real-time network simulation study using PRIME**. Jason Liu, Yue Li, and Ying He, In *Proceedings of the 2009 Winter Simulation Conference (WSC'09)*, Austin, TX, USA, December 2009, pp. 797-806.
19. **Real-time security exercises on a realistic interdomain routing experiment platform**. Yue Li, Michael Liljenstam, and Jason Liu. In *Proceedings of the 23rd Workshop on Principles of Advanced and Distributed Simulation (PADS'09)*, Lake Placid, NY, USA, June 22-25, 2009, pp. 54-63.
20. **A fluid background traffic model**. Ting Li and Jason Liu. In *Proceedings of the 2009 IEEE International Conference on Communications (ICC'09)*, Dresden, Germany, June 14-18, 2009, 5 pages.
21. **SVEET! A scalable virtualized evaluation environment for TCP**. Miguel Erazo, Yue Li, and Jason Liu. In *Proceedings of the 5th International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom'09)*, Washington DC, USA, April 6-8, 2009, 10 pages.
22. **Toward scalable routing experiments with real-time network simulation**. Yue Li, Jason Liu, and Raju Rangaswami. In *Proceedings of the 22nd Workshop on Principles of Advanced and Distributed Simulation (PADS'08)*, Rome, Italy, June 3-6, 2008, pp. 23-30.
23. **Interval branching**. Patrick Peschlow, Peter Martini, and Jason Liu. In *Proceedings of the 22nd Workshop on Principles of Advanced and Distributed Simulation (PADS'08)*, Rome, Italy, June 3-6, 2008, pp. 99-108.
24. **A primer for real-time simulation of large-scale networks**. Jason Liu. In *Proceedings of the 41st Annual Simulation Symposium (ANSS'08), part of the 2008 Spring Simulation Multiconference*, Ottawa, Canada. April 14-16, 2008, pp. 85-94.
25. **Immersive real-time large-scale network simulation: a research summary**. Jason Liu. In *Proceedings of the 22nd IEEE International Parallel and Distributed Processing Symposium (IPDPS'08), NSF NGS Workshop*, Miami, Florida, April 13-14, 2008, 5 pages.
26. **Parallel simulation of hybrid network traffic models**. Jason Liu. In *Proceedings of the 21st Workshop on Principles of Advanced and Distributed Simulation (PADS'07)*, San Diego, CA, USA, June 12-15, 2007, pp. 141-151.

27. **An open and scalable emulation infrastructure for large-scale real-time network simulations.** Jason Liu, Scott Mann, Nathanael Van Vorst, and Keith Hellman. In *Proceedings of INFOCOM 2007 MiniSymposium*, Anchorage, AK, USA, May 6-12, 2007, pp. 2471-2475.
28. **Packet-level integration of fluid TCP models in real-time network simulation.** Jason Liu. In *Proceedings of the 2006 Winter Simulation Conference (WSC'06)*, Monterey, CA, USA, December 2-5, 2006, pp. 2162-2169.
29. **Advanced concepts in large-scale network simulation.** David M. Nicol, Michael Liljenstam and Jason Liu. In *Proceedings of 2005 Winter Simulation Conference (WSC'05)*, Orlando, FL, USA, December 4-7, 2005, pp. 153-166.
30. **RINSE: the real-time interactive network simulation environment for network security exercises.** Michael Liljenstam, Jason Liu, David Nicol, Yougu Yuan, Guanhua Yan, and Chris Grier. In *Proceedings of the 19th Workshop on Principles of Advanced and Distributed Simulation (PADS'05)*, Monterey, CA, USA, June 1-3, 2005, pp. 119-128.
31. **Outdoor experimental comparison of four ad hoc routing algorithms.** Robert S. Gray, David Kotz, Calvin C. Newport, Nikita Dubrovsky, Aaron Fiske, Jason Liu, Christopher Masone, Susan McGrath, and Yougu Yuan. In *Proceedings of the 7th ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM'04)*, Venice, Italy, October 4-6, 2004, pp. 220-229.
32. **Experimental evaluation of wireless simulation assumptions.** David Kotz, Calvin Newport, Robert S. Gray, Jason Liu, Yougu Yuan, and Chip Elliott. In *Proceedings of the 7th ACM/IEEE International Symposium on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM'04)*, Venice, Italy, October 4-6, 2004, pp. 78-82.
33. **Simulation validation using direct execution of wireless ad-hoc routing protocols.** Jason Liu, Yougu Yuan, David M. Nicol, Robert S. Gray, Calvin C. Newport, David F. Kotz, and Luiz Felipe Perrone. In *Proceedings of the 18th Workshop on Parallel and Distributed Simulation (PADS'04)*, Kufstein, Austria, May 16-19, 2004, pp. 7-16.
34. **Development of an Internet backbone topology for large-scale network simulations.** Michael Liljenstam, Jason Liu, and David M. Nicol. In *Proceedings of the 2003 Winter Simulation Conference (WSC'03)*, New Orleans, LA, USA, December 7-10, 2003, pp. 694-702.
35. **Simulation of large-scale networks using SSF.** David M. Nicol, Jason Liu, Michael Liljenstam, and Guanhua Yan. In *Proceedings of the 2003 Winter Simulation Conference (WSC'03)*, New Orleans, LA, USA, December 7-10, 2003, pp. 650-657.
36. **Multiscale modeling and simulation of worm effects on the Internet routing Infrastructure.** David M. Nicol, Michael Liljenstam, and Jason Liu. In *Proceedings of the 13th International Conference on Modeling Techniques and Tools for Computer Performance Evaluation (Performance TOOLS 2003)*, Urbana, IL, USA, September 2-5, 2003, pp. 1-10.
37. **An implementation of the SSF Scalable Simulation Framework on the Cray MTA.** Robert R. Henry, Simon H. Kahan, Jason Liu, David M. Nicol. In *Proceedings the 17th Workshop on Parallel and Distributed Simulation (PADS'03)*, San Diego, CA, USA, June 10-13, 2003, pp. 77-85.

38. **Lookahead revisited in wireless network simulations.** Jason Liu and David M. Nicol. In *Proceedings of the 16th Workshop on Parallel and Distributed Simulation (PADS'02)*, Washington, DC, USA, May 12-15, 2002, pp. 79-88.
39. **Towards high performance modeling of the 802.11 wireless protocol.** Jason Liu, David M. Nicol, Luiz Felipe Perrone, and Michael Liljenstam. In *Proceedings of the 2001 Winter Simulation Conference (WSC'01)*, Arlington, VA, USA, December 9-12, 2001, pp. 1315-1320.
40. **Simulation modeling of large-scale ad-hoc sensor networks.** Jason Liu, Felipe Perrone, David M. Nicol, Chip Elliot, and David Pearson. In *Proceedings of the European Simulation Interoperability Workshop 2001 (Euro-SIW'01)*, London, England, June 25-27, 2001, 12 pages.
41. **Lock-free scheduling of logical processes in parallel simulation.** Jason Liu, David M. Nicol, and King Tan. In *Proceedings of the 15th Workshop on Parallel and Distributed Simulation (PADS'01)*, Lake Arrowhead, CA, USA, May 15-18, 2001, pp. 22-31.
42. **Learning not to share.** Jason Liu and David M. Nicol. In *Proceedings of the 15th Workshop on Parallel and Distributed Simulation (PADS'01)*, Lake Arrowhead, CA, USA, May 15-18, 2001, pp. 46-55.
43. **Safe timestamps and large-scale modeling.** David M. Nicol, Jason Liu, and James Cowie, In *Proceedings of the 14th Workshop on Parallel and Distributed Simulation (PADS'00)*, Bologna, Italy, May 28-31, 2000, pp. 71-78.
44. **Towards realistic million-node Internet simulations.** James Cowie, Hongbo Liu, Jason Liu, David Nicol, and Andy Ogielski. In *Proceedings of the 1999 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'99)*, Las Vegas, NV, USA, June 28-July 1, 1999, 9 pages.
45. **Performance prediction of a parallel simulator.** Jason Liu, David M. Nicol, Brian J. Premore, and Anna L. Poplawski. In *Proceedings of the 13th Workshop on Parallel and Distributed Simulation (PADS'99)*, Atlanta, GA, USA, May 1-4, 1999, pp. 156-164.
46. **The dark side of risk (what your mother never told you about Time Warp).** David M. Nicol and Xiaowen Liu. In *Proceedings of the 11th Workshop on Parallel and Distributed Simulation (PADS'97)*, Lockenhaus, Austria, May 10-13, 1997, pp. 188-195.
47. **Parallelizable execution-driven simulation of threaded distributed memory parallel computations.** David M. Nicol and Jason X. Liu. In *Proceedings of the 4th International Workshop on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (MASCOTS'96)*, San Jose, CA, USA, February 1-4, 1996, pp. 174-178.

BOOK CHAPTERS

1. **Parallel discrete-event simulation.** Jason Liu. *Wiley Encyclopedia of Operations Research and Management Science*. Edited by James J. Cochran. John Wiley & Sons, ISBN: 978-0-470-40063-0. DOI: 10.1002/9780470400531, March 2011, 21 pages.
2. **Parallel and distributed immersive real-time simulation of large-scale networks.** Jason Liu. *Parallel and Distributed Computing*. Edited by Alberto Ros Bardisa. ISBN: 978-953-307-057-5, pp. 221-245.

THESIS

1. **Improvements in conservative parallel simulation of large-scale models.** Xiaowen (Jason) Liu. *Ph.D. Thesis*. Dartmouth College. February 2003. Advisor: David M. Nicol.

TECHNICAL REPORTS

1. **Model-driven network emulation with virtual time machine.** Jason Liu, and Raju Rangaswami. *Technical Report TR-2009-03-01*, School of Computing and Information Sciences, Florida International University, March 2009.
2. **Outdoor experimental comparison of four ad hoc routing algorithms.** Robert S. Gray, David Kotz, Calvin Newport, Nikita Dubrovsky, Aaron Fiske, Jason Liu, Christopher Masone, Susan McGrath, and Yougu Yuan. *Technical Report TR2004-511*, Dept. of Computer Science, Dartmouth College, June 2004.
3. **Experimental evaluation of wireless simulation assumptions.** David Kotz, Calvin Newport, Robert S. Gray, Jason Liu, Yougu Yuan, and Chip Elliott. *Technical Report TR2004-507*, Dept. of Computer Science, Dartmouth College, June 2004.
4. **Lock-free scheduling of logical processes in parallel simulation.** Xiaowen Liu, David M. Nicol, and King Tan. *Technical Report TR2001-385*, Dept. of Computer Science, Dartmouth College, January 2001.
5. **Automatic video pause detection filter.** Xiaowen Liu, Charles B. Owen, and Fillia Makedon. *Technical Report PCS-TR97-307*, Dept. of Computer Science, Dartmouth College, February 1997.
6. **A critique of the Telecommunications Description Language (TeD).** Brian J. Premore, David M. Nicol, and Xiaowen Liu. *Technical Report PCS-TR96-299*, Dept. of Computer Science, Dartmouth College, November 1996.
7. **The dark side of risk (what your mother never told you about Time Warp).** David M. Nicol and Xiaowen Liu. *Technical Report PCS-TR96-298*, Dept. of Computer Science, Dartmouth College, November 1996.

FUNDED RESEARCH

1. **PrimoGENI Constellation for Distributed At-Scale Hybrid Network Experimentation.** National Science Foundation (through Raytheon/GENI Project Office, CNS-1346688). PI: Jason Liu. \$269K, 2013-2015.
2. **SoftPM: Streamlining High-End Computing with Software Persistent Memory.** National Science Foundation, CCF-0937964. PI: Raju Rangaswami. Co-PIs: Jason Liu, Ming Zhao. \$712K, 2010-2013.
3. **PrimoGENI--Developing GENI Aggregates for Real-time Large-scale Network Simulation.** National Science Foundation (through Raytheon/GENI Project Office, CNS- 0714770). PI: Jason Liu. Co-PIs: Julio Ibarra, Heidi Alvarez. \$502K, 2009-2013.
4. **CAREER: Immersive Large-Scale Network Simulations.** National Science Foundation, CNS-0546712, CNS-0836408. PI: Jason Liu. \$436K, 2006-2012.
5. **CREST: Center for Innovative Information Systems Engineering, Subproject 5: Complex System Modeling, Analysis and Realization (CS-MAR).** National

Science Foundation, HRD-0833093. PI: Xudong He; Co-PIs: Shu-Ching Chen, Peter Clarke, Jason Liu, S. Masoud Sadjadi. \$825K, 2008-2013.

INVITED TALKS

1. **Introduction to parallel simulation of large-scale networks.** *Huawei Co.*, April 2012.
2. **Can we really model the Internet?** *Florida International University*, School of Computing and Information Sciences, October 2011.
3. **Parallel simulation and high-performance network modeling,** *Beijing University of Technology*, June 2011.
4. **Parallel simulation and high-performance network modeling,** *Tsinghua University*, June 2011.
5. **Parallel simulation and high-performance network modeling,** *Beihang University*, June 2011.
6. **Parallel simulation and high-performance network modeling,** *National University of Defense Technology*, July 2011.
7. **Parallel simulation toward extreme-scale network experimentation.** *Los Alamos National Laboratory*, May 2010.
8. **Parallel simulation toward extreme-scale network experimentation.** *Sandia National Laboratories*, May 2010.
9. **Model-driven emulation of large-scale networks.** *University of Bonn*, June 2009.
10. **Somewhere between network simulation and emulation.** *Florida International University*, Telecommunications and Information Technology Institute (IT2), February 2008.
11. **The PRIME project & hybrid traffic modeling.** *Florida International University*, School of Computing and Information Sciences, October 2007.
12. **Immersive real-time network simulation.** *Sandia National Laboratories*, July 2007.
13. **The PRIME research: virtually all for real.** *Florida International University*, School of Computing and Information Sciences, April 2007.
14. **PRIME time research: virtually all for real.** *Colorado School of Mines*, Department of Mathematical and Computer Sciences, January 2007.
15. **Parallel real-time immersive network modeling environment (PRIME).** *University of Colorado at Boulder*, Department of Computer Science, September 2006.
16. **Parallel real-time immersive network modeling environment (PRIME).** *Los Alamos National Laboratory*, August 2006.
17. **Toward parallel real-time simulation of global-scale networks.** *University of Colorado at Denver*, Department of Computer Science and Engineering, February 2005.
18. **The “real” life of network simulations: research in real-time network simulations and validations.** *Colorado School of Mines*, Department of Mathematical and Computer Sciences, January 2005.
19. **Riding the curve: scalable parallel simulation for networking research.** *Colorado School of Mines*, Department of Mathematical and Computer Sciences, March 2004.

20. **Riding the curve: scalable parallel simulation for networking research.** *Virginia Polytechnic Institute and State University (Virginia Tech)*, Department of Computer Science, March 2004.
21. **Parallel simulation using DaSSF.** *Cray Inc.*, April 2002.
22. **DaSSF and simulation of large-scale wireless ad-hoc networks.** *BBN Technologies*, February 2002.
23. **Enabling large-scale discrete-event simulation with DaSSF.** *Los Alamos National Laboratory*, January 2002.

HONORS AND AWARDS

- SIGSIM-PADS Best Paper Award, 2014.
- CNS Best Paper Award, 2012.
- NSF CAREER Award, 2006.
- FIU 2010 Top Scholars in Research, 2010.
- FIU SCIS Excellence in Service Award, 2009.
- GEC Travel Grant (several times).
- Beijing Outstanding Student Award in Physics and Engineering, 1992.
- University Academic Excellence Award, 1990–1993.
- University Scholarship, 1988–1989.

PROFESSIONAL SERVICES

- **Associate Editor**, *Simulation: Transactions of the Society for Modeling and Simulation International*, 2009-.
- **Steering Committee Member**, ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (**SIGSIM-PADS**), 2013-.
- **Guest Editor**, *Simulation: Transactions of the Society for Modeling and Simulation International*, Special Issue on Advanced and Distributed Simulation, 2009.
- **Steering Committee Member**, ACM/IEEE/SCS Workshop on Principles of Advanced and Distributed Simulation (**PADS**), 2008-2012.
- **General Co-Chair**, 26th ACM/IEEE/SCS Workshop on Principles of Advanced and Distributed Simulation (**PADS 2012**), Zhangjiajie, China, July 15-19, 2012.
- **General Chair**, 4th International ICST Conference on Simulation Tools and Techniques (**SIMUTools 2011**), Barcelona, Spain, March 21-25, 2011.
- **General Chair**, 18th Annual Meeting of the IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (**MASCOTS 2010**), Miami Beach, Florida, August 17-19, 2010.
- **Program Co-Chair**, 3rd International ICST Conference on Simulation Tools and Techniques (**SIMUTools 2010**), Torremolinos, Malaga, Spain, March 15-19, 2010.
- **Track Coordinator**, Winter Simulation Conference (WSC), Networks and Communications Track, Savannah, GA, December 7-10, 2014.
- **Local Coordinator**, 4th GENI Engineering Conference (**GEC4**), Miami, Florida, March 31-April 2, 2009.
- **Program Chair**, 22nd Workshop on Principles of Advanced and Distributed Simulation (**PADS 2008**), Rome, Italy, June 3-6, 2008.

- **Proceedings Co-Editor**, 2006 Winter Simulation Conference (**WSC**), Monterey, California, December 2-5, 2006.
- **Publicity Chair**, 19th Workshop on Principles of Advanced and Distributed Simulation (**PADS 2005**), Monterey, California, June 1-3, 2005.
- **NSF Panelist**: 2008, 2009
- **Program Committee Membership**:
 - ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (**SIGSIM-PADS**), 2013-2014.
 - International Conference on Systems Simulation (**AsiaSim**), 2013.
 - Annual IEEE/IFIP International Conference on Dependable Systems and Networks (**DSN**), 2013.
 - ACM/IEEE/SCS Workshop on Principles of Advanced and Distributed Simulation (**PADS**), 2005-2012.
 - Annual Meeting of the IEEE/ACM International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems (**MASCOTS**), 2009-2012.
 - IEEE Conference on Local Computer Networks (**LCN**), 2008-2012.
 - IEEE/ACM International Symposium on Distributed Simulation and Real-time Applications (**DS-RT**), 2008-2012.
 - International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (**TridentCom**), 2009-2010.
 - ICST International Conference on Simulation Tools and Techniques (**SIMUTools**), 2009-2012.
 - Others (many lost count): **WSC** 2012; **HPCC** 2011, 2012; **ICC** 2012; **SN** 2008-2011; **DCPerf** 2011; **ChinaCom** 2009, 2010; **WCNC** 2010, 2011; **ICISTM** 2009; **ICNSC** 2008, 2009; **ICCCN** 2008-2011; **IWCMC** 2007
- **Other Professional Activities**
 - Member of ACM, 2003-current.
 - Member of IEEE Computer Society, 2003-current.
 - Member of IEEE Communication Society, 2006-2009.