

**Jean A. Mayo**

Department of Computer Science  
Michigan Technological University  
Houghton, MI 49931-1295  
*jmayo@mtu.edu*

**Education:**

1997	Ph.D. Computer Science	College of William and Mary, Va.
1994	M.S. Computer Science	College of William and Mary, Va.
1991	B.S. Physics	Longwood College, Va.
1985	Bachelor of Mechanical Engineering	Georgia Institute of Technology

**Professional Appointments:**

2003 - present	Associate Professor	Michigan Technological University
1997 - 2003	Assistant Professor	Michigan Technological University
1985 - 1992	Engineer	Newport News Shipbuilding

**Publications:**

- X. Wang, J. Mayo, and G.C. Hembroff, "Detection of a Weak Conjunction of Unstable Predicates in Dynamic Systems," *Proceedings of the Sixteenth International Conference on Parallel and Distributed Systems*, 338-346(2010)
- X. Wang, J. Mayo, G.C. Hembroff, and C. Gao, "Detection of Conjunctive Stable Predicates in Dynamic Systems," *Proceedings of the Fifteenth International Conference on Parallel and Distributed Systems*, 828-835(2009)
- N. Bansod, A. Malgi, B. Choi, and J. Mayo, "MuON: Epidemic based mutual anonymity in unstructured P2P networks," *Computer Networks*, vol. 52, no.5, 915-924(2008)
- X. Wang, J. Mayo, W. Gao, and J.R. Slusser, "An Efficient Implementation of Vector Clocks in Dynamic Systems," *Proceedings of the 2006 International Conference on Parallel and Distributed Processing Techniques and Applications*, 593-599(2006)
- D. Darling, J. Mayo and X. Wang, "Stable Predicate Detection in Dynamic Systems," *Proceedings of the Ninth International Conference on Principles of Distributed Systems*, 121-131(2005)
- N. Bansod, A. Malgi, B. Choi, and J. Mayo, "MuON: Epidemic Based Mutual Anonymity," *Proceedings of the IEEE 13th International Conference on Networking Protocols*, 99-109 (2005)
- X. Wang and J. Mayo, "A Distributed Algorithm in the OR Model for Deadlock Detection and Resolution Based on Hardware Clocks," *Proceedings of the 17th International Conference on Parallel and Distributed Computing Systems*, 193-200(2004)
- X. Wang and J. Mayo, "A Dynamic Priority Based Algorithm for Distributed Deadlock

Detection and Resolution,” *Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications*, H.R. Arabnia and Jun Ni, (CSREA Press, USA, 2004) 2, 599-605

- X. Wang and J. Mayo, “A General Model for Termination Detection in Distributed Systems”, *Proceedings of the 18th International Parallel and Distributed Processing Symposium*, (IEEE Computer Society, Los Alamitos, CA), (CDROM) 2004
- S. Carr, C.Fang, T. Jozwowski, J.Mayo, and C. Shene, “Concurrent Mentor: A Visualization System for Distributed Programming Education,” *Proceedings of the International Conference on Parallel and Distributed Processing Techniques and Applications*, H.R. Arabnia and Younsong Mun, (CSREA Press, USA, 2003) 4, 1676-1682
- J. Dobbelaere, P. Kearns, and J.Mayo, “The Advantages of Real-Time in TORA”, *Proceedings of the International Conference on Computer Applications in Industry and Engineering*, K.E. Nygard (ISCA Press, Cary, NC, 2003), 225-229
- S. Carr, J. Mayo, and C. Shene, “ThreadMentor: A Pedagogical Tool for Multithreaded Programming”, *Journal of Educational Resources in Computing*, (JERIC), (3)1, 2003
- J. Huggins, J. Mayo, and C. Wallace, “Teaching ASMs, Teaching with ASMs: Opportunities in Undergraduate Education,” *Proceedings of ASM 2003 - Tenth International Conference on Abstract State Machines*, Springer LNCS 2589, (2003)
- S. Bansod and J. Mayo, “A Distributed Algorithm for Unstable Global Predicate Evaluation with Approximately Synchronized Clocks,” *Proceedings of the Sixth International Conference on Principles of Distributed Systems*, 63–72(2002)
- C. Zhao and J. Mayo, “A TCP/UDP Protocol Visualization Tool: Visual TCP/UDP Animator (VTA),” *Proceedings of the International Conference on Engineering Education 2002*, CDROM (2002)
- S. Carr, P. Chen, T. Jozwowski, J. Mayo, and C. Shene, “Channels, Visualization, and Topology Editor,” *Proceedings of the Seventh Annual Conference on Innovation and Technology in Computer Science Education*, 106–110(2002)
- S. Carr, C. Fang, T. Jozwowski, J. Mayo, and C. Shene, “A Communication Library to Support Concurrent Programming Courses,” *Proceedings of the Thirty-third SIGCSE Technical Symposium on Computer Science Education*, 360–364(2002)
- S. Carr, J. Mayo, and C. Shene, “Race Conditions: A Case Study,” *The Journal of Computing in Small Colleges*, vol. 17, no. 1, 88-102(2001)
- L. Ye, X. Wang, A. MacEwen, N. Schulz and J. Mayo, “Implementation of a CORBA Based Publish/Subscribe System for Application Integration in an Outage Management System,” *Proceedings of the 2000 North American Power Symposium*, University of Waterloo, Waterloo, Ontario Canada (2000)
- J. Mayo and P. Kearns, “Two Protocols for the Detection of Stable Predicates,” *Proceedings of the Twelfth IASTED International Conference on Parallel and Distributed Computing*, vol. 1, 75–80(2000)

- D. Darling and J. Mayo, “Stable Predicate Detection with Probabilistically Synchronized Clocks,” *Proceedings of the Thirteenth International Conference on Parallel and Distributed Computing Systems*, 574–579(2000)
- J. Mayo and P. Kearns, “Distributed Deadlock Detection and Resolution Using Hardware Clocks,” *Proceedings of the Nineteenth IEEE Conference on Distributed Computing Systems*, 208–215(1999)
- J. Mayo and P. Kearns, “A Secure Unrestricted Advanced Systems Laboratory,” *Proceedings of the Thirtieth SIGCSE Technical Symposium on Computer Science Education*, 165–169(1999)
- J. Mayo and P. Kearns, “A Time-Based Schema for Stable Predicate Evaluation,” *Proceedings of the Tenth IASTED International Conference on Parallel and Distributed Computing and Systems*, 357–362(1998)
- J. Mayo and P. Kearns, “A Secure Networked Laboratory for Kernel Programming (Extended Abstract),” *Proceedings of the 6th Annual Conference on the Teaching of Computing and the Third Annual Conference on Integrating Technology into Computer Science Education*, 175–177(1998)
- J. Mayo, *Global Predicates in Rough Real Time*, PhD Thesis, Department of Computer Science, The College of William and Mary, August 1997
- J. Mayo and P. Kearns, “Efficient Distributed Termination Detection with Roughly Synchronized Clocks,” *Proceedings of the Seventh IASTED/ISMM International Conference on Parallel and Distributed Computing Systems*, 304–307(1995)
- J. Mayo and P. Kearns, “Global Predicates in Rough Real Time,” *Proceedings of the Seventh IEEE Symposium on Parallel and Distributed Processing*, 17-24(1995)
- J. Mayo and P. Kearns, “Distributed Termination Detection with Imprecise Clocks,” *Information Processing Letters*, vol. 54, 105–108(1994)

#### **GRANTS:**

- “Concurrent Computing in an Upper-Level Computer Science Curriculum”, NSF (CCLI-EMD 9952509), \$299865, 2000 – 2002, with Dr. Steven Carr (PI) and Dr. C.K. Shene
- “CAREER: Development and Control of Distributed Computations in a Global Time Frame”, NSF(CCR-9984682), Operating Systems and Compilers, \$204957, 2000–2004

#### **GRADUATE STUDENTS:**

##### **Current:**

Ph.D. Advisor: Lihui Hu, Paul Bonamy

Total: Ph.D. 1, M.S. 18