Joan Krone

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Denison University
Post Office Box 810
Granville, Ohio 43023-0810
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3262 Milner Road
Granville, Ohio 43023
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ACADEMIC DEGREES

Ph.D.   1988, The Ohio State University
                 Major: Foundations of Computer Science
                 Minor(s): Programming Languages and Operating Systems
                 Thesis: "The Role of Verification in Software Reusability"

M.S.   1983, The Ohio State University
                 Computer Science

M.S.   The Ohio State University
                 Mathematics

B.S.   West Liberty State College
                 Mathematics
                 Graduated with highest honors

PRESENT POSITION

2004 – Present   Professor of Mathematics and Computer Science
                      and Director of the Gilpatrick Center

PREVIOUS POSITIONS

2011 - Present	Director of Gilpatrick Center
2010	Sabbatical
2009	Director of Gilpatrick Center
2006	Director of Fellowships and Scholarships
2003 – 2004	Sabbatical (R.C. Good Grant).
2002	Recipient of the Benjamin Barney Professorship
1999	Promoted to the rank of Professor.
1997 – 2001	Science Co-ordinator.
1995 – 2001	Chair of Department of Math and Computer Science.
1996-97	Sabbatical (R.C. Good Grant).
1994	Awarded tenure in Math/Computer Science Department.
Fall semester 1992:	Research under auspices of Joyce Foundation.
1990	Department of Mathematical Sciences at Denison University.
1988-90	Computer Science Department, at The Ohio State University.
1983-88	Taught and worked on Ph.D. in CS Department at OSU.
1983	Helped arrange conference on CAD/CAM.
1967-82	Taught at Ohio Dominican College.
1980	Helped design a TV course in Computer Literacy.
1981	Wrote programs for a statistical study for Ohio.
1978-83	Acquired FIPSE grant for Central Ohio Consortium of Post Secondary Institutions.

1977-81	Headed committee for starting a Computer Curricula at ODC.
1972	Granted tenure at Ohio Dominican College.
1970-83	Chaired the Math Department at Ohio Dominican College.

BOOKS

Feil, T. & Krone, J. (2003). **Essential Mathematics for Computer Science.** *Prentice-Hall*.

PUBLICATIONS

1. Svetlana, V. Dracova, Jason Hallstrom, Joseph Hollingsworth, Joan Krone, Rich Pak, Murali Sitaraman, 2015. Teaching Mathematical Reasoning Principles for Software Correctness and its Assessment. Trans. Comput. Educ. 15, 3, Article 15, (August 2015). 22 pages.

2. Joseph Hollingsworth, Joan Krone, Jason Hallstrom, Murali Sitaraman, Bruce Weide, "Engaging mathematical reasoning exercises," **SIGCSE '14:** Proceedings of the 45th ACM technical symposium on Computer science education, March, 2014.

3. Gregory Kulczycki, Murali Sitaraman, Joan Krone, Joseph E. Hollingsworth, William F. Ogden, Bruce W. Weide, Paolo Bucci, Charles T. Cook, Svetlana Drachova, Blair Durkee, Heather Harton, Wayne Heym, Dustin Hoffman, Hampton Smith, Yu-Shan Sun, Aditi Tagore, Nighat Yasmin, and Diego Zaccai, *A Language for Building Verified Software Components*, Technical Report RSRG-13-01, School of Computing, Clemson University, Clemson, SC 29634-0974, February 2013, 16 pages.

4. Yu-Shan Sun, Murali Sitaraman, Joan Krone, "Enabling Automated Verification of Components with and without Reference Behavior," The Art, Science, and Engineering of Programming, ACM CCS 2012.

5. Joan Krone, Jason Hallstrom, Murali Sitaraman, CCSC 2011 Proceedings, "Mathematics throughout the CS Curriculum."

6. Jason Hallstrom, Murali Sitaraman, Joan Krone, ACMSE 2011 Proceedings "Making Mathematical Reasoning Fun: Tool-Assisted, Collaborative Techniques."

7. S.V. Drachova, J.E. Hollingsworth, D.P. Jacobs, J. Krone, and M. Sitaraman, "A Systematic Approach to Teachign Abstraction and Mathematical Modeling," Technical Report RSRG-11-02, School of Computing, Clemson University, Clemson, SC 29634-0974, September, 2011, 6 pages.

8. S.V. Drachova, J.O. Hallstrom J.E. Hollingsworth, J. Krone, , R. Pak, and M. Sitaraman, "Assessment of Learning Outcomes Using a Mathematical Reasoning Concept Inventory," Technical Report RSRG-11-01, School of Computing, Clemson University, Clemson, SC 29634-0974, September, 2011, 6 pages.

9. Krone, Joan, "Mathematics throughout the CS Curriculum," Proceedings of CCSC September, 2011.

10. Murali Sitaraman, Bruce Adcock, Jeremy Avigad, Derek Bronish, Paolo Bucci, David Frazier, Harvey M. Friedman, Heather Harton, Wayne Heym, Jason Kirschenbaum, Joan Krone, Hampton Smith, and Bruce W. Weide, "Building a Push-Button RESOLVE Verifier: Progress and Challenges," Formal Aspects of Computing, 2010, 34 pages.

11. J. Krone, J.E. Hollingsworth, M. Sitaraman, and J.O. Hallstrom, "A Reasoning Concept Inventory for Computer Science," Technical Report RSRG-10-01, School of Computing, Clemson University, Clemson, SC 29634-0974, September, 2010, 6 pages.

12. Sitaraman, M., Hallstrom, J., White,J., Drachobva-Strang, S., Harton, H., Leonard, D. Krone, J. Pak, R, "Engaging Students in specification and Reasoning hands-on Experimentation and Evaluation," Proceedings of the 14th Annual ACMSIGCSE Conference on Inovation and Technology in Computer Science Education, ACM. Pp. 50-54 (2009).

13. Sitaraman, Hallstrom, White, Drachova-Strang, harton, Leonard, Krone, Pak, "Engaging Students in Specification and Reasoning: Hands on Experimentation and Evaluation," Proceedings of ITiCSE, July 5-8, 2009.

14. Smith, H., Roche, K., Sitaraman, M., Krone, J., Ogden, W., "Integrating Math Units and Proof Checking for Specification and Verification," Proceedings of Specification and Verification of Component Based Software Workshop, Atlanta, Georgia, November 9-10, 2008.

15. Keown, H., Krone, J., & Sitaraman, M. , "Formal Program Verification." *The Encyclopedia of Computer Science and Engineering*. Wiley, 2008.

16. J. Krone, W. F. Ogden, M. Sitaraman, and B. W. Weide, "Refocusing the Verifying Compiler Grand Challenge," <http://www.cs.clemson.edu/~resolve/reports/RSRG-08-01.pdf> , Technical Report RSRG-08-01, School of Computing, Clemson University, Clemson, SC 29634-0974, June 2008, 10 pages.

17. Behrend, S., Krone, J., & Ogden, W.F. (2007). "Program Justification: Verifying code Semantics with Mathematics." *Proceedings of MCURCSM 2007*.

18. Hallstrom, J.O., Krone, J., Pak, R., & Sitaraman, M. (2007). "The Collaborative Reasoning Paradigm." *Proceedings of the RESOLVE 2007 Workshop.* Clemson University, June 11-13, 2007.

19. Krone, J., & Ogden, W.F. (2007). "Resolve 2007: Current State of Verification." *Proceedings of the RESOLVE 2007 Workshop.* Clemson University, June 11-13, 2007.

20. Hollingsworth, J.E., Krone, J., Ogden, W.F., Sitaraman, M., & Weide, B.W. (2007). "The Resolve Software Verification Vision." *Proceedings of the RESOLVE 2007 Workshop.* Clemson University, June 11-13, 2007.

21. J. Krone, "Meeting the Challenge for Discrete Mathematics for CS: the Power of Symbols," Porceedings of CCSC, Hamilton College, September 28-29, 2007.

22. Krone, J., Ogden, W.F. & Sitaraman, M. (2006). "Performance Analysis Based upon Complete Profiles." *SAVCBS Workshop.* November 10-11, 2006.

23. Krone, J., (2006). "A Project Approach to the Theory of Programming Languages." *Proceedings of* CCSC, September, 2006.

24. Fressola, A., Krone, J., Paunov, S., & Westmoreland, M. (2006). "Characterization of Boolean topological Logics." *The Journal of Multiple Valued Logics*. 409-415.

25. Krone, J., & Ogden, W.F. (2006). "Software Verification is not dead, but it needs a new way to Express Mathematics." *Proceedings of RESOLVE 2006 Workshop.* Virginia Tech, March 22-23, 2006.

26. Krone, J., & Schmidt, N. (2005). "Constructing an Efficient and Easily Distributable Virtual Tour." *Proceedings of MCURCSM 2005*.

27. Krone, J. (2004). "Keeping Pointers or References under Control: A Component Based Approach to List Based Data Structures." *The Journal of Computing Sciences in Colleges*, 20, Number 1. 42–53.

28. Krone, J., Ogden, W.F., & Sitaraman, M. (2004). "Profiles: A Compositional Mechanism for Performance Specifications." *Technical Report RSRG-04-03*, Department of Computer Science, Clemson University.

29. Fressola, A., & Krone, J. (2003). "Induction by Construction." *Proceedings of MCURCSM 2003*.

30. Krone, J. (2003). "Multiple Implementations for Component Based Software Using Java Interfaces." *The Journal of Computing Sciences in Colleges*, 19, Number 1.

31. Krone, J., Ogden, W.F., & Sitaraman, M. (2003). "OO Big O: A Sensitive Notation for Software Engineering." *Technical Report RSRG-03-06*, Department of Computer Science, Clemson University.

32. Krone, J., & Ogden, W.F. (2003). "Abstract OO Big O." *Proceedings of ESECFMW* 2003.

33. Krone, J., Ogden, W.F., Sitaraman, M., "Modular Verification of Performance Constraints," Technical Report RSRG-03-04, School of Computing, Clemson University, Clemson, SC 29634-0974, September, 2003, 25 pages.

34. Krone, J. (2002). "When Theory Meets Practice: Enriching the CS Curriculum through Industrial Case Studies." *Proceedings of the 15th Conference on Software Engineering Education and Training.*

35. Krone, J., & Westmoreland, M. (2002). "Derivation Schemes in Twin Open Set Logic." *Collision-Based Computing*. Andrew Adamatzky, Editor. Springer-Verlag. 201-229.

36. Krone, J., Ogden, W.F., & Sitaraman, M. (2001). "Modular Verification of Performance Correctness." *Proceedings of Specification and Verification Workshop at OOPSLA*.

37. Feil, T., & Krone, J. (2001). "Incorporating Mathematics into the First Year CS Program: A New Approach to CS2." *Proceedings of the Midwest Computing Conference*.

38. Krone, J., & Sitaraman, M. (2001). "Performance Specification of Reusable Software Components." *Proceedings of ACM Symposium on Software Reusability*.

39. Krone, J., & Westmoreland, M. (2000). "Collision models for multiple-value logic gates." *Multiple-Valued Logic Journal*.

40. Krone, J. (1999). "Teaching and Learning through Industrial Partnerships." Accepted by the Conference on College Teaching and Learning. (An invited paper).

41. Krone, J., & Westmoreland, M. (1998). "Phase Space Logics for analysis of physical models of computation." *Physica D*.

42. Krone, J., & Ogden, W.F. (1997). "There's a Better Way to Define the Correct Realization Notion." *Proceedings of the Workshop on Reusable Software*.

43. Krone, J. (1996). "Using Symbolic Computation for Teaching Data Structures and Algorithm Analysis." *SIGCSE Bulletin*.

44. Krone, J., & Westmoreland, M. (1996) "Applications of Non-Standard Logic to the Billiard Ball Model of Computation." *Proceedings of PhysComp*.

45. Krone, J., and others. (1996). "Use of Laboratories in Computer Science Education: Guidelines for Good Practice." *Journal for SIGCSE*.

46. Krone, J. (1996). "Symbolic Computation in CS2." *Proceedings of International Conference on Computers in Education*.

47. Bucci, P., Hollingsworth, J., Krone, J., & Weide, B. (1994). "Implementing Components in RESOLVE." *ACM Software Engineering Notes*.

48. Krone, J. (1994). "Trees as Inductive Structures." *Computer Science Education Journal*.

49. Krone, J., & Sitaraman, M. (1993). "On Modularity and Tightness of Real-Time Verification." *Tenth IEEE Workshop on Real-Time Operating Systems and Software*. 109-115.

50. Krone, J. (1993). "A Modular System for Verification of Functionality and Performance Correctness." *West Virginia University TR 93-5*.

51. Krone, J. (1992) "Student Designed Machines for A Theory of Computation Course." *SIGCSE Bulletin*.

52. Krone, J. (1990). "Proof Rules for Modules." *OSU-CISRC-3/90 TR7*.

53. Krone, J. (1989) "Termination Rules for White Loops and Recursive Procedures." *OSU-CISRC-10/89 TR48*.

ACCEPTED FOR PUBLICATION AND/OR PRESENTATION

SVETLANA V. DRACHOVA, Clemson University, JASON O. HALLSTROM, Clemson University, MURALI SITARAMAN, Clemson University, JOSEPH E. HOLLINGSWORTH, Indiana University Southeast, JOAN KRONE, Denison University, "Assessment of Learning Outcomes Using a Mathematical Reasoning Concept Inventory," TOCE.

RESEARCH GRANTS AND AWARDS

National Science Foundation CCLI Grant 1020886, "Collaborative Research: "Hands-On Collaborative Reasoning across the Curriculum," Phase II, 2010 – 2013.
National Science Foundation Grant to hold a workshop at Denison on Mathematical Reasoning throughout the CS curriculum, June 2010.
Andrew Mellon Foundation Grant. 2009. Interdisciplinary (sciences) W-orkshop.
Denison University Research Fellowship (DURF) Grant.2008.
Andrew Mellon Foundation Grant. 2008. To hold a CS2 Workshop.
National Science Foundation CCLI Award 0633506, "Collaborative Research: Computer-Aided Collaborative Reasoning across the Curriculum," 2008 - 2009
Andrew Mellon Foundation Grant. 2007. To hold the CS1 Workshop.
Great Lakes College Association (GLCA) Grant. 2007. For GLCA members to attend the CS1 workshop.
National Science Foundation Award: co-PI with Murali Sitaraman and Jason Hallstrom at Clemson U. 2007.
Denison University Research Fellowship (DURF) Grant. 2006.
Andrew Mellon Foundation Grant to hold a graphics workshop. 2006.
Andrew Mellon Foundation Grant to plan a graphics workshop. 2005.
National Science Foundation Award 0443791 with Prof. Lew Ludwig to support Summer Topology Conference. 2005.
National Science Foundation Award 053323 with Prof. Tom Peters to support the Computational Topology Workshop. 2005.
Robert C. Good Research Fellowship. 2003-2004.
Benjamin Barney Endowed Chair 2002 to Present
National Science Foundation award to incorporate research into the undergraduate curriculum. 1998.
Robert C. Good Research Fellowship. 1996. 1997.
Summer Professional Development Grant. 1991. 1993. 1995.
Denison University Research Foundation Grant. 1992. 1993. 1994. 1995.
Joyce Foundation Grant, first semester, 1992.
Recipient of G.E. forgivable loan 1984-85, 1985-86.
Graduate Student Honor Society 1983.
National Science Foundation Fellowship 1966-67.
Outstanding Student Award from Westinghouse Research Labs.
Elected to Sigma Tau Academic Honorary Fraternity.

INVITED TALKS

"Mathematics throughout the CS Curriculum," Huntington University, September, 2011.

"CyberEthics: The Good, the Bad, and the Electronic," Oberlin College, September, 2008.

"The Power of Symbols," September 28, 2007, Ohio University at Hamilton.

"Formal Specifications for the Infix to Postfix Problem," July 10, 2008, at The Ohio State University.

"CS1: Lessons Learned from a Media Application Approach." CS1 Workshop, Denison University, Granville, Ohio, June 14, 2007.

"The Current State of Program Verification." Resolve 2007 Workshop, Clemson University, Clemson, South Carolina, June 11, 2007.

"Cyber Ethics: The Good, the Bad, and the Electronic." Tuesday Lunch at Denison University, Granville, Ohio, January 16, 2007.

"A Project Approach to the Theory of Programming Languages." CCSC Conference, DePauw University, Greencastle, Indiana, October 1, 2006.

"Theorem Checking and Program Justification." RESOLVE Workshop, Virginia Tech, Blacksburg, Virginia, March 22, 2006.

"What is Research?" SIGCSE Symposium, Houston, Texas, March 4, 2006.

"Mathematical Foundations for Denotational Semantics for Relational Programming Languages." With W.F. Ogden, at The Ohio State University, Columbus, Ohio, September 29, 2005.

"Non-Boolean Models for Computing." Topology Conference, Denison University, Granville, Ohio, July 11, 2005.

"Mathematical Foundations for Automated Theorem Checking." The Ohio State University, Columbus, Ohio, January, 2005.

"Reasoning about Programs." Department Fast Talk, Denison University, February 12, 2005.

"Multiple Implementations for Java Interfaces." CCSC Conference, October 1, 2003.

 "Computer Science, Backbone of the Liberal Arts." Wooster College Colloquium, Wooster, Ohio, October 24, 2002.

"Non-Standard Logics: What are They, Why Do We Need Them, How Do We Use Them?" Bowling Green State University, Bowling Green, Ohio, November 9, 2001.

"Mathematics in the First Year CS Curriculum." Midwest Computing Conference, September 2001.

"Foundations of Mathematics for Computer Science." The Ohio State University, Columbus, Ohio, October 7 and 14, 2000.

"Matching Undergraduates to Research Projects." Council on Undergraduate Research (CUR) National CUR Conference 2000, at Wooster College, Wooster, Ohio, June 23, 2000.

 "Off-Campus Research." Wooster College, Wooster, Ohio, June 24, 2000.

"Performance Specifications of Reusable Software Components." Symposium on Software Reuse, Toronto Canada, May 19, 2001.

"Use of Computers in the Human Genome Project." GLCA presentation, February 9, 2001.

Department Seminar on Data Structures and Algorithm Analysis for the Department of Mathematics and Computer Science, a series of six one hour talks, fall, 2000.

"Applications of Non-Standard Logic in Computer Science." Midwest Theory Conference, University of Kentucky, Lexington, Kentucky, April, 1998.

"A New Approach to Set Theory for Computer Scientists." The Ohio State University, summer, 1998.

"The Necessity for Relational Semantics for Sequential Programs." The Ohio State University, June, 1998.

"Semantics for Non-Determinism." The Ohio State University fall and winter quarters, 1996-97.

"Complete Partial Orderings for Programming Language Semantics." Denison University, Granville, Ohio.

"Correct Realizations: A General Semantics." West Virginia University, Morgantown, West Virginia, January, 1997.

"Formal Semantics for Data Abstraction." Series in the RSRG seminar at The Ohio State University, Fall, 1996.

"Performance Constraints in Real-Time Computing." West Virginia University, Morgantown, West Virginia, June, 1995.

"Using Symbolic Computation in the Teaching of Data Structures and Algorithm Analysis." West Virginia University, Morgantown, West Virginia, June 1995.

"Formal Issues in Real-Time Computing." The Ohio State University, Columbus, Ohio, July, 1995.

"Contributions of Object Oriented Design to Reuse of Software." Midwest Computing Conference, Northern Illinois University, DeKalb, Illinois, March 31, 1995.

"Teaching Logic as a Tool." ACM Conference, March, 1995.

"Computer Ethics." Rotary Club, Granville, Ohio, August, 1994.

"On Modularity and Tightness of Real-Time Verification." IEEE Real-Time Workshop, May, 1993.

"Mathematical Specification of Program Functionality." Ohio Wesleyan University, Delaware, Ohio, November 17, 1992.

"Continuing Education for Technological Careers in the '90's and Beyond." National Organization of Women in Computing, September 9, 1992.

"Formal Specification of Performance Characteristics for Software." The Ohio State University, Columbus, Ohio, October 16, 1992.

"Automated Program Verification." Kenyon College, Gambier, Ohio, April 15, 1992.

"The Use of Adjunct Variables in Termination Proofs of Correctness." Ohio Collegiate Computer Science Conference, April 24, 1992.

"Building Modular Software Components." IBM, Owego, March 19, 1990.

"Proving the Correctness of Software Components." IBM, Owego, March 20, 1990.

"A Computer Course for Students of the Liberal Arts." Merrill Publishing Company, May, 1990.

"Computer Science in Post Secondary Education." ACM Conference, June 10, 1985.

UNDERGRADUATE RESEARCH DIRECTED

Cai, Sihan, (summer 2018) "A ReSoLVE Tutorial."
Cai, Sihan, (summer 2017) "Introductory Activities for Formal Reasoning."
Ling, Lingbo (summer 2014) "A Step Toward Formal Verification of Compilers."
Phan, Viet Tan (summer 2014) "Basic Multi-Set Theory and Designing an Automated Proof Checker."
Liu, Jason (summer 2014) "Implementing Mathematical Type Checking."
Welch, Dan   (summer 2011, 2012) "Modular Design and Verification in RESOLVE," NSF student.
Sun, Sami. (summer 2009). "RESOLVE Generics for the Prioritizer." DURF student. Poster presentation.
Sun, Sami (summer 2008). "RESOLVE Applications." DURF student. Poster presentation.
McFall, S. (summer 2007). "Sound Applications for CS1." National Science Foundation student.
Behrend, S. (March 2007). "Logic for Program Verification." DURF student. Presentation at SIGCSE,
         March, 2007. Presentation at MCURCSM, November, 2007.
Behrend, S. (summer 2006). "Logic for Program Verification." DURF student.
Tucker, L. (summer 2006) "Media in Beginning Java Programming." ERES student.
Hudson, I. (June 2006). "Parallelizing DNA Sequence Searches." Presentation at Graphics Workshop.
Schmidt, N. (summer 2005 & Senior Research) "Denison Walk-Through." Anderson student.
Hoffman, A. (summer 2005 & Senior Research) "Hand Animation for Picking up Soft Object."
         Presentation at Graphics Workshop, June 2006. Anderson student.
Hoffman, A. (November, 2004). "Language Support for Software Engineering Principles." Presentation
          at Foundations of Software Engineering Conference, November, 2004.
Fressola, A. (January 2004). "Integers by Induction." National American Mathematical Society
         Conference, Phoenix, Arizona. Anderson student.
Fressola, A. (October 2003). "Integer Construction by Induction." MCURCSM.
Fressola, A. (October 2003) "Topological Touchdowns." Pi Mu Epsilon Conference.
Tawney, M. (2003) "Algorithm Analysis for the Object Oriented Paradigm." 2002. Anderson student.
         Invited talk at The Ohio State University, March 13, 2003. Posters on the Hill, April 1, 2003.
Roberts, J. (2003). "Designs for Hand Held Devices."
Roberts, J. (2002). "Generic possibilities in Java."
Fressola, A., & Paunov, S. (2002). "Logics Derived from Topologies."
Dimitrov, V. (summer 2001). "Zero-Divisor Graphs." Presented at the ACM-SIGCSE Conference,
         February, 2002.
Amos, J., & Nardella, B. (summer 2000) "Multiple Types Exported from Single ADT's: Can these be
         implemented in C++?"
Subherwal, M. (summer 1999). "Applying SE principles to Java components."
Groff, T. (November, 1998). "Non-determinism in Java." Presented at Argonne National Lab.
Ward, M. (April, 1998) "A New Programming Paradigm." Presented at a poster session on Capitol Hill.
Haidet, J. (March, 1997). "Bridging the Gap Between Theory and Practice." Presented at ACM
         Conference; award winning.
Eilar, L., Shen, F., & Ward, M. (summer 1996). "Software Engineering Design Principles in C++."
Ward, M. (November, 1996). "Billiard Ball Models of Computation." Presented at The Physics of
         Computation Conference.
Stoner, D. (February, 1996). "An Efficient Distribution of Types." Presented at ACM Conference.
Ni, K. (Summer 1995). "GUI Design Issues."
Holthaus, C. (Summer 1995) "Typing for the Sciences."
Van Ness, M. (1995). "Graphical Representations for Conceptual Models of Data Structures."

Goyal, R. (February, 1994). "Curve Fitting for Gamma Functions." Presented at ACM Conference.
Wu, J. (January, 1994). "Generics and Inheritance." Presented at MAA Conference.
Dexter, S. (February, 1993). "A Program Verifier for Modula 2." Presented at ACM Conference.

POSTER PRESENTATIONS

"Reasoning Across the Curriculum," CCLI Meeting, Washington, D.C., August, 2008.
"Mathematical Software for Computer Science." CUR Annual Meeting, LaFayette College, June, 1997.
"Non-Standard Logics and the Billiard Ball Model of Computation." Conference on the Physics of
      Computation, November, 1996, Boston University.
"Symbolic Computation for Analysis of Algorithms." International Conference on Technology, June,
      1996, University of Barcelona.

OTHER PROFESSIONAL ACTIVITIES

Workshop on Department Reviewing: CCSC with Henry Walker 2014.
Workshop for SIGCSE: "Making Mathematical Reasoning Fun." 2013
ICSR 2013
RESOLVE Workshop 2013
Panel for SIGCSE: Teaching Mathematical Reasoning across the CS Curriculum 2012
Workshop for CCSC: Applying Mathematical Reasoning throughout the CS Curriculum September 2011
Workshop for SIGCSE: Incorporating Mathematical Reasoning into the CS Curriculum March 2011
Student Research Judge, SIGCSE 2011
External Reviewer for Albright College CS/Math Department, March, 2011.
Student Poster Judge, SIGCSE 2010
Birds of a Feather Presentation at SIGCSE: Reasoning across the CS Curriculum, March 2010
Birds of a Feather Presentation at SIGCSE: The Role of Mathematics in the CS Curriculum, March, 2009.
Judge for Student Poster Session, SIGCSE 2009.
External Reviewer for Augustana CS Department, April, 2009.
Student Poster Coordinator for SIGCSE 2008.
Host and Program Chair for CS2 Workshop, June 16, 17, 2008.
External Reviewer for DePauw CS Department, February, 2008.
External Reviewer for Tenure Materials for Ursinus, Fall, 2008.
Reviewer for CMJ (College Math Journal) 2008, 2009, 2010, 2011.
External Reviewer for Tenure Materials for Kalamazoo, Fall, 2007.
Host and Program Chair for CS1 Workshop, June 14, 15, 2007.
Reviewer for SIGCSE 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.
Reviewer for ITiCSE 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011.
Reviewer for Grace Hopper Awards 2005, 2006, 2007, 2008, 2009, 2010, 2011.
Judge for Student Posters at SIGCSE conference, Covington, Kentucky, 2007.
Host and Program Chair for Graphics Workshop, June 4, 5, 2006.
Judge for Student Posters at SIGCSE conference, Houston, Texas, April 4, 2006.
External Reviewer for Tenure Materials for Wooster, Fall, 2005.
Program Chair Host for Planning a Graphics Workshop, June 20, 21, 2005.
Co-host of the Summer Topology Conference at Denison, July, 2005.
Co-host of the Topological Computation Workshop, July, 2005.
Session Chair of Formal Methods and Theory at the annual SIGCSE conference, Norfolk, Virginia,
      March 4 – 6, 2004.

Judge of Student Presentations at SIGCSE conference, Norfolk, Virginia, March 5, 2004, and previous 5 years.

Host of the 10th Annual CCSC (Consortium for Computing Sciences in Colleges), Ocotber 3 – 4, 2003.

Co-host of the MCURCSM (Midwest Conference for Undergraduate Research in Computer Science and Mathematics), October 25, 2003.

Judge for Student Poster presentations at Kenyon College, 2002.

Chair of the Division of Math and Computer Science for CUR from 1997 to 2001.

Host for GLCA CS workshop, 2001.

Programming Committee for CUR conferences.

Member of CUR Speakers Bureau.

Department external reviewer for University of Pittsburgh, Bradford, 2000.

Department external reviewer for Indiana University, SE, 1998.

Referee for papers submitted to the Conference on Software Reuse (occurs every other year).

Member of RSRG (Reusable Software Research Group) at OSU since 1984

CONTRIBUTIONS TO THE OTHER PURPOSES OF THE COLLEGE

Academic Year 2014-15

PFF mentor for Elif Miskioglu

Reviewer for CMJ

Reviewer for SIGCSE

Reviewer for ITiCSSE

Reviewer for student poster sessions

Reviewer for Grace Hopper Scholarships

Reviewer for CCSC

Directed Studies for 4 student internships

Academic Year 2013-14

Reviewer for CMJ

Reviewer for SIGCSE

Reviewer for ITiCSSE

Reviewer for student poster sessions

Reviewer for Grace Hopper Scholarships

PFF mentor for Mark Risser

Directed Studies for 2 student internships

Academic Year 2012-13

Reviewer for CMJ

Reviewer for SIGCSE

Reviewer for ITiCSSE

Reviewer for student poster sessions

Reviewer for Grace Hopper Scholarships

PFF mentor for Candace Joswick

Information Technology Committee

Academic Year 2011-2012

Reviewer for CMJ

Reviewer for SIGCSE

Reviewer for ITiCSSE

Reviewer for student poster sessions

Reviewer for Grace Hopper Scholarships

RESOLVE Workshop Site Host

PhD Committee for Heather Harton

ETS

SIGCSE Workshop

NSF Showcase at SIGCSE
Workshop for CCSC "Applying Mathematical Reasoning throughout the CS Curriculum"

Academic Year 2009-2010
Host for Mellon sponsored workshop on CS2.
Pilot program for students and faculty and staff to have lunch or dinner together
Director of Fellowships and Scholarships
President's Advisory Board
Honors Committee
Department Assessment Coordinator
Admissions Events
Women in Science
Reviewer for Grace Hopper Scholarships
Reviewer for CMJ (College Math Journal)
Reviewer for MCURCSM (Midwest Conference for Undergraduate Research in Computer Science and Mathematics).
Mentor for OSU grad student Matt Boggus
Reviewer for SIGCSE (Special Interest Group Computer Science Education)
CUR (Council on Undergraduate Research) Councilor
CCLI Workshop

Academic Year 2008-2009
Host for Mellon sponsored workshop on CS2.
Pilot program for students and faculty and staff to have lunch or dinner together
Director of Fellowships and Scholarships
President's Advisory Board
Honors Committee
Department Assessment Coordinator
Admissions Events
Women in Science
Reviewer for Grace Hopper Scholarships
Reviewer for CMJ (College Math Journal)
Reviewer for MCURCSM (Midwest Conference for Undergraduate Research in Computer Science and Mathematics).
Reviewer for Ursinus tenure case
Reviewer for Wooster professor promotion
Mentor for OSU grad student (Matthew Lang)
Reviewer for SIGCSE (Special Interest Group Computer Science Education)
CUR (Council on Undergraduate Research) Councilor

Academic Year 2007-2008
Admissions Events
CUR Councilor
Department Assessment Coordinator
Director of Fellowships and Scholarships
Honors Committee
Host for Chowder Hour
Host for Faculty Friday
President's Advisory Board
Women in Science
Reviewer for McGraw Hill java text

Reviewer for MCURCSM
Reviewer for SIGCSE
Women in Science

Academic Year 2006-2007
Admissions Events
Chair of the Faculty
Chaired Search Committee for Dean of First Year Studies
CUR Councilor
Facilitator for Faculty Conference
Honors Committee
Reader for Salary Reviews
Reviewer for Grace Hopper Scholarships
Reviewer for Jones & Bartlett java text
Reviewer for MCURCSM
Reviewer for SIGCSE
Tuesday Lunch Speaker
Women in Science

Academic Year 2005-2006
Admissions Events
Chair Elect
Chair of Search Committee for Dean of First Year Students
Chair of the Senior Administrative Review Committee
Co-Chair of the Task Force to Study the Major
CUR Councilor
Honors Committee
Reviewer for MCURCSM
Reviewer for SIGCSE
Women in Science

Academic Year 2004-2005
Admissions Events
Co-host of the Summer Topology Conference
CUR Councilor
Honors Committee
June Orientation
Meeting with junior faculty
Mellon Grant Committee
Planning meeting for Mellon supported Graphics Workshop
Women in Science

Academic year 2003-2004 sabbatical
Honors Committee
June Orientation

Academic Year 2002-2003
Ad Hoc Committee on Harassment
Admissions Events
CUR Councilor
First Year Studies Committee

June Orientation

<u>Academic Year 2001-2002</u>
Admissions Events
Advisory Council
CUR Councilor
First Year Studies Committee
GLCA Representative
Jack Thornborough Association
June Orientation

<u>Academic Year 2000-2001</u>
Admissions Events (Faculty Fair, meetings with prospective students and parents)
Committee appointed to review a tenure decision
CUR councilor
Department Chair
First Year Studies Committee
GLCA Representative
Honorary Degree Committee
Jack Thornborough Association
June Orientation
Parents' weekend
Safety Committee
Science Coordinator

<u>Academic Year 1999 – 2000</u>
Admissions events for faculty to meet with prospective students and parents
Committee to Address the Issue of Assessing the Academic Program
Committee to Evaluate Senior Faculty (Seth Patton and Larry Scheiderer)
CUR National Division Chair (Council on Undergraduate Research)
Department Chair
Evaluator of Kenyon student research poster presentations
First Year Studies Committee
Jack Thornborough Association (3 summer stipends) and industrial partnership
June Orientation
May Alumni College
Safety Committee
Science Coordinator

<u>Pre 1999</u>
Campus and Residential Life Committee which considered the housing issues resulting from the closing of
    the fraternity houses.
Computer Committee Member from 1991 – 1996
Department Chair from 1994
First Year Studies Committee for the past 5 years
Participated in Teaching Matters for new faculty