JASON S. HOWELL

Assistant Professor
Department of Mathematics
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EDUCATION:

- **Ph.D., Mathematical Sciences, Clemson University, Clemson, SC**, August 2007.
  Advisors: Vincent J. Ervin and Hyesuk Lee.
  Thesis: *Numerical Approximation of Shear-Thinning and Johnson-Segalman Viscoelastic Fluid Flows*.
- **M.S., Mathematical Sciences, Clemson University, Clemson, SC**, May 1998.
  Advisor: Shuhong Gao.
  Project: *The Index Calculus Algorithm for Discrete Logarithms*.
- **B.S., Mathematics, College of Charleston, Charleston, SC**, December 1996. *(Summa Cum Laude)*

ACADEMIC AND PROFESSIONAL POSITIONS:

- **Assistant Professor, Department of Mathematics, College of Charleston, Charleston, SC**
  August 2012 - present. (Courtesy appointment June 2012 - August 2012.)
- **Assistant Professor, Department of Mathematics, Clarkson University, Potsdam, NY**
  August 2010 - June 2012. Faculty Affiliate, Clarkson University Institute for a Sustainable Environment, September 2010 - June 2012.
- **Postdoctoral Associate, Center for Nonlinear Analysis, Department of Mathematical Sciences, Carnegie Mellon University, Pittsburgh, PA**
  September 2007 - July 2010.
- **Summer Scholar, Institute for Scientific Computing Research, Lawrence Livermore National Laboratory, Livermore, CA**
  May 2004 - August 2004, May 2005 - September 2005, May 2006 - June 2006.
- **Graduate Research Assistant, Department of Mathematical Sciences**
  Clemson University, Clemson, SC
  August 2004 - August 2007.
- **Graduate Teaching Assistant, Department of Mathematical Sciences, Clemson University, Clemson, SC**
  January 1997 - May 1999, August 2003 - May 2004.
- **Visiting Instructor, Department of Mathematical Sciences, Clemson University, Clemson, SC**
  August 2002 - August 2003.
- **Research Associate/Database Administrator, Clemson Apparel Research, Pendleton, SC**
  May 1999 - August 2002.

RESEARCH INTERESTS:

- **Current Activities:** Finite Element Methods for Fluids and Structures; Applications of Differential Equations in the Natural and Social Sciences; Direct Solution Methods for Large Sparse Linear Systems; Numerical and Computational Analysis of Arterial Blood Flow; Numerical Methods for Coupled Multiscale Problems in Fluid/Fluid and Fluid/Structure Interaction.
- **General Interests:** Numerical and Computational Analysis; Numerical Solution of Partial Differential Equations; Computational Fluid Dynamics; Finite Element Methods; Saddle Point Problems; Inf-Sup Conditions; Temporal Integration Methods for Systems of Ordinary Differential Equations; Operator-Splitting Methods; Defect Correction Methods; Continuation Methods; Newtonian and Non-Newtonian Fluid Flow; Reaction-Diffusion Equations; Flow in Porous Media; Iterative Linear and Nonlinear Solvers.

PUBLICATIONS:
Annotations: * = undergraduate student co-author, **C**= based on work done at the College of Charleston, **L**= based on work done at Clarkson University, **M**= based on work done at Carnegie Mellon University, **G**= based on work done as a graduate student at Clemson University

21. (**C**) J. S. Howell, M. R. Roesing*, and D. S. Boucher. *A functional approach to solubility parameter computations.* Submitted to Journal of Mathematical Chemistry, July 2016.
20. (**C**) N. Kuthirummal, G. Smith, L. Lopez*, R. Podila, J. Howell, C. Dun, and A. M. Rao. *Early stage ZnO nanorod growth facilitated by thermal anneal of CVD-grown ZnO nanoparticles.* Submitted to Applied Physics Letters, July 2016.
19. (**C**) C. A. Fletcher* and J. S. Howell. *Dynamic modeling of nontargeted and targeted advertising strategies in an oligopoly.* Submitted to Journal of Dynamics and Games, May 2016.
18. (**C**) J. S. Howell. *Prestructuring sparse matrices with dense rows and columns via null space methods.* Submitted to Numerical Linear Algebra and Applications, May 2016.
17. (**C**) J. S. Howell, M. Neilan, and N. J. Walkington. *A dual-mixed finite element method for the Brinkman problem.* SMAI J. Comput. Math., 2, 2016, 1-17.
16. (**C**) J. S. Howell and D. S. Boucher. *Temperature dependence of the convex solubility parameters of organic semiconductors.* J. Polym. Sci. Part B: Polym. Phys., 54(1), 2016, 81-88.
15. (**C**) J. S. Howell, B. O. Stephens*, and D. S. Boucher. *Convex solubility parameters for polymers.* J. Polym. Sci. Part B: Polym. Phys., 53(16), 2015, 1089-1097.
14. (**LC**) J. S. Howell, H. Lee, and S. Xu. *Finite element approximation of viscoelastic flow in a moving domain.* Elect. Trans. Numer. Anal., 41, 2014, 306–327.
13. (**LC**) J. S. Howell, H. Lee, and S. Xu. *Numerical study of a viscoelastic flow in a moving domain.* Proceedings of the 8th International Conference on Scientific Computing and Applications, Contemp. Math. Series no. 586, Amer. Math. Soc., 2013, 181–188.
12. (**LC**) J. S. Howell and N. J. Walkington. *Dual-mixed finite element methods for the Navier-Stokes equations.* ESAIM: Mathematical Modelling and Numerical Analysis, 47, 2013, 789–805.
11. (**ML**) J. M. Connors, J. S. Howell, and W. J. Layton. *Decoupled timestepping methods for fluid-fluid interaction.* SIAM J. Numer. Anal. 50(3), 2012, 1297–1319.
10. (**ML**) J. M. Connors and J. S. Howell. *A fluid-fluid interaction method using decoupled subproblems and differing time steps.* Numer. Methods PDE 28(4), 2012, 1283-1308.
9. (**ML**) J. S. Howell and N. J. Walkington. *Inf-sup conditions for twofold saddle point problems.* Numer. Math. 118(4) 2011, 663–693.
8. (**ML**) J. S. Howell. *Approximation of generalized Stokes problems using dual-mixed finite elements without enrichment.* Inter. J. Numer. Meth. Fluids 67(2) 2011, 247-268.
7. (**M**) J. M. Connors, J. S. Howell, and W. J. Layton. *Partitioned timestepping for a parabolic two domain problem.* SIAM J. Numer. Anal. 47(5) 2009, 3526–3549.
6. (**GM**) J. S. Howell. *Dual-mixed finite element approximation of Stokes and nonlinear Stokes problems using trace-free velocity gradients.* J. Comput. Appl. Math. 231(2) 2009, 780–792.
5. (**G**) J. S. Howell. *Computation of viscoelastic fluid flows using continuation methods.* J. Comput. Appl. Math. 225(1) 2009, 187–201.
4. (**G**) V. J. Ervin, J. S. Howell, and I. Stanculescu. *A dual-mixed approximation method for a three-field model of a nonlinear generalized Stokes problem.* Comput. Meth. Appl. Mech. Engrg. 197(33–40) 2008, 2886–2900.
3. (**G**) V. J. Ervin, J. S. Howell, and H. Lee. *A two-parameter defect-correction method for computation of steady-state viscoelastic fluid flow.* Appl. Math. Comput. 196(2) 2008, 818-834.
2. (**G**) S. Gao, J. S. Howell. *A general polynomial sieve.* Designs and codes—a memorial tribute to Ed Assmus. Des. Codes Cryptogr. 18 (1999), no. 1-3, 149–157.
1. (**G**) S. Gao, J. S. Howell, D. Panario. *Irreducible polynomials of given forms.* Finite fields: theory, applications, and algorithms (Waterloo, ON, 1997), 43–54, Contemp. Math., 225, Amer. Math. Soc., Providence, RI, 1999.

RESEARCH ACTIVITIES WITH UNDERGRADUATE STUDENTS:

- Spencer Wilder (Math & Chemistry Major), numerical methods for aeroelastic flutter, May 2016-present (with J. Webster).
- Katelynn Huneycutt (Math & Physics Major), numerical methods for aeroelastic flutter, May 2016-present (with J. Webster).
- Miranda Roesing (Chemistry & Biochemistry Major), computation of functional solubility parameters for polymers, January 2016-present (with D. Boucher).
- Ben Stephens (Chemistry & Biochemistry Major), solubility parameters for polymers, January 2015-May 2015 (with D. Boucher).
- Tyler Perini (Math Major), modeling social trends using differential equations, January 2014-May 2016.
- Danielle Massé (Math & Physics Major), computational analysis of blood flow in abdominal aortic aneurysms, May 2014-May 2016.
- Chloe Fletcher (Data Science Major), modeling and analysis of advertising strategies using differential equations, January 2014-May 2015.
- Allison Conger (Math Major), computational analysis of blood flow in intracranial aneurysms, May 2014-August 2014.

COURSES TAUGHT: (As Instructor of Record, * indicates graduate course, ° indicates new course)

Department of Mathematics, College of Charleston

COURSE	SEM/YR
MATH 111 (Pre-Calculus Mathematics)	S13
MATH 120 (Introductory Calculus)	F12(2), F13(3), F14, F15, S16, F16
MATH 207 (Discrete Structures I)	S13(2), S14, Su14
MATH 229° (Vector Calculus with Chemical Applications)	F14, S15, F15, S16
MATH 245 (Numerical Methods and Mathematical Computing)	F16
MATH 246 (Mathematical Computing and Programming Laboratory)	F16
HONS 280° (Applied Differential Equations)	F13
MATH 399 (Tutorial)	S15
MATH 470 (Mathematical Modeling)	S15
MATH 480/580*° (Special Topics: Introduction to Cryptography)	S15

Department of Mathematics, Clarkson University

COURSE	SEM/YR
MA131 (Calculus I)	F10
MA231 (Calculus III)	S11
MA311 (Abstract Algebra)	F11
MA330 (Advanced Engineering Mathematics)	F11
MA339 (Applied Linear Algebra)	S12
MA346 (Applied Algebra and Discrete Structures)	S11
MA511* (Algebraic Structures)	S12
MA571* (Numerical Methods for Differential Equations)	S11
MA572* (Finite Element Methods)	F11

Department of Mathematical Sciences, Carnegie Mellon University

COURSE	SEM/YR
21-120 (Differential and Integral Calculus)	S10
21-123 (Calculus of Approximation)	F08
21-126 (Introduction to Mathematical Software)	F08(3)
21-127 (Concepts of Mathematics)	S08
21-236 (Mathematical Studies II)	S09
21-369 (Numerical Methods)	F07, F08(Indep. Study)
21-762* (Finite Element Methods)	F09

Department of Mathematical Sciences, Clemson University

COURSE	SEM/YR
MTHSC 106 (Calculus I)	F97, F98(2)
MTHSC 108 (Calculus II)	S98, S99, F02(2), S03(2), Su03
MTHSC 206 (Multivariate Calculus)	F02, S03, F03
MTHSC 208 (Ordinary Differential Equations)	S04

HONORS AND AWARDS: (* indicates activities since June 2012)

- *College of Charleston Award for Outstanding Service to First-Year Students, 2013-2014.
- *College of Charleston Award for Outstanding Service to First-Year Students, 2012-2013.
- Clarkson University Phalanx Commendable Service Award, 2011-2012.
- Clarkson University Office of Accommodative Services RESPECT Award nomination, Fall 2011.
- SIAM Student Travel Grant, February 2007.
- Outstanding Citizenship Award 2006-2007, Department of Mathematical Sciences, Clemson University.
- Outstanding Graduate Student Presentation, Joint Meeting of the MAA Southeastern Section and the SIAM Southeast Atlantic Section, Auburn, AL, March 31 - April 1, 2006.
- Clemson University Graduate Student Government Travel Award, April 2006.
- Outstanding Citizenship Award 2005-2006, Department of Mathematical Sciences, Clemson University.
- Outstanding Service to the Department Award 2003-2004, Department of Mathematical Sciences, Clemson University.
- Graduate Teaching Assistant of the Year 1998-1999, College of Engineering and Science, Clemson University.
- Outstanding Service to the Department Award 1998-1999, Department of Mathematical Sciences, Clemson University.
- Dean's Scholar Fellowship, College of Engineering and Science, Clemson University, 1998-1999.
- Outstanding Master's Student 1997-1998, Department of Mathematical Sciences, Clemson University.
- Graduation honor *Summa Cum Laude*, College of Charleston, 1996.
- Ewa Wojcicka Mathematics Award (Outstanding Mathematics Major) 1995-1996, Department of Mathematics, College of Charleston.

FUNDED AND UNFUNDED GRANT PROPOSALS: (* indicates activities since June 2012)

- *NSF CAREER Grant Proposal, "CAREER: Compatibility Conditions and Solvers for Dual-Mixed Finite Element Methods with Applications in Fluids and Structures," Submitted July 2016, pending.
- *College of Charleston SURF Grant Proposal, "Numerical Methods for Aeroelastic Flutter," Submitted February 2016, funded, $6000.
- *College of Charleston RPG Grant Proposal, "Newtonian and Non-Newtonian Fluid Dynamics in Abdominal Aortic Aneurysms," Submitted October 2014, funded, $250.
- *College of Charleston RPG Grant Proposal, "Analysis of nontargeted and targeted advertising strategies in an oligopoly setting," Submitted September 2014, funded, $450.
- *NSF CAREER Grant Proposal, "CAREER: Compatibility Conditions and Solvers for Dual-Mixed Finite Element Methods with Applications in Continuum Mechanics," Submitted July 2014, unfunded.
- *Howard Hughes Medical Institute Summer Undergraduate Research Grant Proposal, "Computational analysis of wall shear stress in arterial aneurysms," Submitted March 2014, funded, $6000.
- *College of Charleston SURF Grant Proposal, "Computational analysis of wall shear stress in arterial aneurysms," Submitted February 2014, funded, $4000.
- *Simons Foundation Travel Grants for Mathematicians Proposal, "Numerical Methods for Coupled Multiscale Problems in Fluid Dynamics," Submitted January 2014, unfunded.
- *College of Charleston Honors College New Course Development Stipend, May 2013, $750.
- *College of Charleston Faculty R&D Grant Proposal, "Numerical Methods for Hemodynamical Flows," Submitted January 2013, funded, $4000.

- *Simons Foundation Travel Grants for Mathematicians Proposal, "Numerical Methods for Coupled Multiscale Problems in Fluid Dynamics," Submitted January 2013, unfunded.
- NSF Single Investigator Grant Proposal, "Numerical Approximation of Non-Newtonian Flows with Applications to Hemodynamics," Submitted December 2011, unfunded.
- NSF Single Investigator Grant Proposal, "Accurate Approximation of Newtonian and Non-Newtonian Fluid Stresses Using Dual-Mixed Finite Element Methods," Submitted December 2010, unfunded.
- NSF Single Investigator Grant Proposal, "Analysis of Dual-Mixed Finite Element Methods for Nonlinear Problems in Continuum Mechanics," Submitted December 2009, unfunded.

SERVICE ACTIVITIES: (* indicates activities since June 2012)

Department and School

- *College of Charleston Department of Mathematics Committees:
  - *Calculus Committee, 2012-present.
  - *Math 111 Committee, 2012-2013.
  - *Faculty Research and Development Committee, 2013-present.
  - *Student Activities and Major Recruitment Committee, 2012-present (chair 2013-present).
  - *Assessment Committee, 2013-present.
  - *Faculty Recruitment Committee, 2013-2014.
  - *Committee on the Major, 2014-present.
- *Co-webmaster of the department website, 2012-present.
- *Volunteer, College of Charleston Math Meet high school mathematics competition, 2013, 2014, 2015, 2016.
- *Exhibitor, School of Science and Mathematics STEM Education Day activities, April 2014 (Charleston Riverdogs), February 2015 (Lady Cougars), February 2016 (Lady Cougars).
- *Exhibitor, Charleston STEM Festival, February 2015.
- *Member, School of Science and Mathematics Scholarship Committee, Spring 2013, Spring 2014.
- *Undergraduate major advisor (currently 13 students), Department of Mathematics, College of Charleston, 2013-present.
- Faculty Advisor, Clarkson University SIAM Student Chapter, Spring 2012.
- Ph.D. advisor, Jay Appleton, Department of Mathematics, Clarkson University, 2011-2012.
- Undergraduate major advisor (5 students), Department of Mathematics, Clarkson University, 2011-2012.
- Organizer and speaker, Numerical Analysis Seminar, Clarkson University Department of Mathematics, Fall 2011.
- Member, Undergraduate Committee, Calculus Subcommittee, Mathematics Department, Clarkson University 2010-2012.
- Speaker, Clarkson University Math Club Seminar, Clarkson University Department of Mathematics Applied Mathematics Seminar, Fall 2010.
- Co-organizer, Center for Nonlinear Analysis Working Group on Recent Advances in Analysis and Approximation of Fluids, Carnegie Mellon University, Fall 2009.
- Speaker, Carnegie Mellon University Department of Mathematical Sciences Undergraduate Colloquium, Fall 2008, Fall 2009.
- Co-organizer, Graduate Student Seminar 2003-2004, Department of Mathematical Sciences, Clemson University.
- Treasurer, Clemson University SIAM Student Chapter 1997-1998.

College/University

- *Senator (SMM at-large), Faculty Senate, Fall 2016-Spring 2017.
- *Member, Presidential Advisory Committee, Fall 2016-Spring 2017.
- *Member, General Education Assessment Reading Group in Math/Logic, Fall 2013-Fall 2015.

- *Member, College of Charleston General Education Committee, 2015-2016.
- *Member, College of Charleston Committee on the Assessment of Institutional Effectiveness, 2013-2015 (Secretary 2013-2014).
- *Volunteer, Organized Chaos Student Move-In Program, College of Charleston, August 2013, August 2014.
- *Parent Group Facilitator, Family Orientation, College of Charleston, June-August 2013, July-August 2014, August 2015 (12 orientation sessions).
- *Facilitator, Convocation, College of Charleston, August 2013, August 2014, August 2015, August 2016.
- Faculty Advisor, Clarkson University chapter of Omega Lambda Tau service fraternity 2010-2012.
- Senator, Graduate Student Government 2006-2007, Clemson University. Member, Finance Committee, Constitution Committee, Parking Review Board.
- Member, organization and examination committees, Clemson Calculus Challenge (high school mathematics competition) 2003, 2004, Clemson University.

Professional

- *Local organizer, AMS Southeastern Section Meeting, March 2017.
- *NSF Computational Mathematics Panel Reviewer, March 2014.
- *Session Chair, AMS/MAA Joint Mathematics Meetings, January 2014.
- *Journal Reviewer/Referee:
  - *Advances in Applied Mathematics and Mechanics
  - Advances in Numerical Analysis
  - AMS Mathematical Reviews
  - *Applicable Analysis
  - *Applied Mathematics and Computation
  - *Applied Mathematical Modeling
  - *Applied Numerical Mathematics
  - *Computer Methods in Applied Mechanics and Engineering
  - *Computers and Mathematics with Applications
  - International Journal of Computational Fluid Dynamics
  - Journal of Aerospace Engineering
  - Journal of Applied Mathematics
  - *Journal of Complex Networks
  - *Journal of Computational and Applied Mathematics
  - *Mathematics in Computers and Simulation
  - *Mathematics of Computation
  - *Numerical Algorithms
  - *Numerical Methods for Partial Differential Equations
  - *Numerische Mathematik
  - *SIAM Journal on Numerical Analysis
- Triage Judge, Moody's Mega Math Challenge, March 2011, March 2012.
- Reviewer: Prentice-Hall (3 calculus textbooks).
- Member, AMS (since 1998), SIAM (since 1997), SIAM Activity Group on Computational Science and Engineering.

Community

- *Math week content provider and teacher training, Engaging Creative Minds Summer 2014 STEAM Institute.
- Volunteer, Animal Rescue League of Western Pennsylvania, Pittsburgh, PA, September 2008-June 2010.
- Founder and President, Clemson Card Players Club (student organization at Clemson University, organized fundraising activites for Big Brother/Big Sisters, Anderson County (SC) Humane Society, American Cancer Society, Camp Happy Days), February 2004-June 2006.

PRESENTATIONS: (* indicates activities since June 2012)

33. **Prestructuring sparse matrices with dense rows for direct solvers,* AMS Southeastern Sectional Meeting, Athens, GA, March 2016.

32. **Dual-mixed finite element methods for the Brinkman problem,* SIAM Conference on Computational Science and Engineering (CSE15), Salt Lake City, UT, March 2015.

31. **An early course on modeling and computation with differential equations,* AMS/MAA Joint Mathematics Meetings, Baltimore, MD, January 2014.

30. **Inf-sup conditions and mixed finite element methods,* Computational Mathematics Seminar, Clemson University, May 2013.

29. **To Be Continued...A Brief Introduction to Continuation Methods,* Colloquium, Department of Mathematics, College of Charleston, November 2012.

28. *Dual–mixed finite element methods for the Navier–Stokes Equations,* 8th International Conference on Scientific Computing and Applications (SCA2012), Las Vegas, NV, April 2012.

27. *Numerical analysis and computation of hemodynamical flows,* Colloquium, Department of Mathematics, College of Charleston, February 2012.

26. *Dual-mixed finite element methods for the Navier-Stokes equations,* Analysis and PDE Seminar, University of Delaware, Newark, DE, May, 2011.

25. *Dual-mixed finite element methods for the Stokes and Navier-Stokes equations,* Minisymposium on Algorithm Analysis, Design and Computation for Turbulent Flows, SIAM Annual Meeting (AN10), Pittsburgh, PA, July, 2010.

24. *Compatible dual-mixed finite element methods for fluids,* Computational and Applied Mathematics Seminar, University of Pittsburgh, Pittsburgh, PA, March 2010.

23. *Dual–mixed finite element methods for fluids*, Mathematics Colloquium, Clarkson University, Potsdam, NY, February 2010.

22. *Modeling and simulation of problems in fluid dynamics*, Colloquium, The Wilkes Honors College of Florida Atlantic University, Jupiter, FL, January 2010.

21. *Dual–mixed finite element methods for fluids*, Colloquium, Missouri University of Science & Technology, Rolla, MO, January 2010.

20. *Dual–mixed finite element methods for fluids*, Special Guest Lecture, Louisiana State University Center for Computation & Technology, Baton Rouge, LA, January 2010.

19. *Analysis and approximation of coupled fluid/elastic structure models arising in vascular fluid dynamics*, CNA Working Group on Recent Advances in Analysis and Approximation of Fluids, Carnegie Mellon University, Pittsburgh, PA, September 2009.

18. *Inf-sup conditions for twofold saddle point problems*, BCAM Seminar, Basque Center for Applied Mathematics, Derio, Spain, July 2009.

17. *Dual-mixed finite element methods for the steady Stokes problem using Arnold–Winther tensors*, Finite Element Circus, University of Delaware, Newark, DE, April 2009.

16. *Dual-mixed finite element approximation of Stokes and generalized Stokes problems*, SIAM Conference on Computational Science and Engineering, (CSE09), Miami, FL, March 2009.

15. *Low-order finite element approximation of nonlinear generalized Stokes problems*, 10th Copper Mountain Conference on Iterative Methods, Copper, CO, April 2008.

14. *Approximating the stress tensor in nonlinear generalized Stokes problems*, Finite Element Circus and Rodeo, Louisiana State University Center for Computation & Technology, Baton Rouge, LA, March 2008.

13. *Saddle point problems and inf-sup conditions,* US-Chile Workshop: New Developments in Partial Differential Equations II, Universidad de Chile, Santiago, Chile, January 2008.

12. *A brief introduction to viscoelastic fluids,* Center for Nonlinear Analysis Working Group on Complex Fluids and Transport, Carnegie Mellon University, Pittsburgh, PA, October 2007.

11. *Dual-mixed approximation of generalized Stokes problems,* Computational and Applied Mathematics Seminar, University of Pittsburgh, Pittsburgh, PA, September 2007.

10. *Computing viscoelastic fluid flows at high Weissenberg number,* SIAM Conference on Computational Science and Engineering, (CSE07), Costa Mesa, CA, February 2007.

9. *Cost of accuracy for coupled diffusion and reaction systems,* SIAM Conference on Computational Science and Engineering, (CSE07), Costa Mesa, CA, February 2007.
8. *Finite element approximation of partial differential equations using* `FreeFEM++`, USC SIAM Student Chapter Seminar, Columbia, SC, February 2007.
7. *Defect–correction methods for finite element computations of viscoelastic fluid flow,* AMS-MAA Joint Mathematics Meetings, New Orleans, LA, January 2007.
6. *Computing viscoelastic fluid flows at high Weissenberg number,* South Eastern Atlantic Mathematical Sciences Workshop (Cha-Cha Days), Charleston, SC, October 2006.
5. *Implementation and performance of a two-grid method for nonlinear reaction-diffusion equations,* Ninth Copper Mountain Conference on Iterative Methods, Copper, CO, April 2006.
4. *Iterative defect-correction strategies for viscoelastic fluid flow,* Joint Meeting of the MAA Southeastern Section and the SIAM Southeast Atlantic Section, Auburn, AL, April 2006.
3. *A defect-correction method for viscoelastic fluid flow,* CASC Work In Progress seminar, Center for Applied Scientific Computing, Lawrence Livermore National Laboratory, August 2005.
2. *Applying a defect correction method to viscoelastic fluid flow,* SIAM-Southeastern Atlantic Region Annual Meeting, Charleston, SC, March 2005.
1. *Irreducible polynomials of given forms,* $\mathbb{F}_{q^4}$ - The Fourth International Conference on Finite Fields and Applications, Waterloo, ON, August 1997.

OTHER CONFERENCES AND WORKSHOPS ATTENDED: (* indicates activities since June 2012)

- *Finite Element Circus, University of Minnesota, Minneapolis, MN, October 2014.
- *IMA Workshop on Structure-Preserving Discretizations of Partial Differential Equations, University of Minnesota, Minneapolis, MN, October 2014.
- *Faculty Technology Institute, College of Charleston, March 2013.
- *Finite Element Circus, University of Pittsburgh, Pittsburgh, PA, October 2012.
- AMS-MAA Joint Mathematics Meetings, Boston, MA, January 2011.
- Finite Element Circus, University of Minnesota, Minneapolis, MN, November 2010.
- IMA Workshop on Numerical Solutions of Partial Differential Equations: Novel Discretization Techniques, University of Minnesota, Minneapolis, MN, November 2010.
- AMS-MAA Joint Mathematics Meetings, San Francisco, CA, January 2010.
- Finite Element Circus, University of Tennessee, Knoxville, TN, October 2009.
- Workshop on Hybridization of Discontinuous Galerkin Methods, Basque Center for Applied Mathematics, Bilbao, Spain, July 2009.