

Curriculum Vitae

Susanne C. Brenner

Department of Mathematics and
Center for Computation and Technology
Louisiana State University
Baton Rouge, LA 70803
225-578-8108 (Office) 225-578-4276 (FAX)
e-mail: brenner@math.lsu.edu

Education

Ph.D.	The University of Michigan, 1988	(Mathematics)
M.S.	The University of Michigan, 1985	(Applied Mathematics)
M.A.	State University of New York at Stony Brook, 1982	(Mathematics)
	Universität Tübingen, 1980-1981	(Mathematics and German)
B.S.Ed.	West Chester State College, 1980	(Mathematics and German)

Employment

2010–present	Michael F. and Roberta Nesbit McDonald Professor
2008–present	Associate Director for Academic Affairs, Center for Computation & Technology, Louisiana State University
2006–present	Professor, Center for Computation & Technology and Dept. of Mathematics, Louisiana State University
2005–2006	Associate Chair, Dept. of Mathematics, University of South Carolina
2002–2004	Assistant Chair, Dept. of Mathematics, University of South Carolina
1999–2007	Professor, Dept. of Mathematics, University of South Carolina
1993–1999	Associate Professor, Dept. of Mathematics, University of South Carolina
1990–1993	Assistant Professor, Dept. of Mathematics, Clarkson University
1988–1989	Teaching Postdoc, Dept. of Mathematics, Syracuse University

Visiting Positions

December 2013	Sun Yat-sen University, Guangzhou, China
February 2013	Indian Institute of Technology, Bombay, India
September 2010–June 2011	Institute for Mathematics and its Applications, Minneapolis
November–December 2009	Université de Paris VI, Paris, France
September–October 2009	LSEC, Chinese Academy of Sciences, Beijing, China
May–June 2008	Humboldt-Universität zu Berlin, Germany
May–August 2007	Humboldt-Universität zu Berlin, Germany

June 2007	Consiglio Nazionale delle Ricerche, Pavia, Italy
May–August 2006	Humboldt-Universität zu Berlin, Germany
June–July 2002	Université de Valenciennes, Valenciennes, France
March–July 2001	Imperial College, London, UK
September–October 2000	Universität Dortmund, Dortmund, Germany
November 2000	Max-Planck Institute, Leipzig, Germany
March–April 2000	Mathematical Sciences Research Institute, Berkeley, CA
Winter & Spring 1997	Institute for Mathematics and its Applications, Minneapolis
Fall 1986	Institute for Mathematics and its Applications, Minneapolis

Member, Editorial Boards

- *Mathematics of Computation*, 1993–present (Editor, 2006–2011; Managing Editor, 2012–present)
- *SIAM Journal on Numerical Analysis*, 1997–2002, 2005–present
- *Numerische Mathematik*, 1998–present
- *Electronic Transactions on Numerical Analysis*, 2000–present
- *Notices of the American Mathematical Society*, 2001–present
- *Applied Numerical Analysis and Computational Mathematics*, 2003–2005
- *Journal of Numerical Analysis, Industrial and Applied Mathematics*, 2006–2012
- *Journal of Computational and Applied Mathematics*, 2007–present (Principal Editor 2007–2010)
- *Advances in Numerical Analysis*, 2008–2012
- *International Journal of Pure and Applied Mathematics*, 2009–2012
- *International Journal of Numerical Analysis and Modeling, Series B*, 2010–present
- *SIAM Classics in Applied Mathematics*, 2011–present
- *Numerical Algorithms*, 2012–present
- *Journal of Numerical Mathematics*, 2013–present

Guest Editor

- Special Issue on Nonlinear Elliptic Differential Equations, Bifurcation, Local Dynamics of Parabolic Systems and Numerical Methods, *Journal of Computational and Applied Mathematics*, Volume 254, 2013.

Professional Organizations

- American Association for the Advancement of Science
- American Mathematical Society
- Association for Women in Mathematics
- Society for Industrial and Applied Mathematics
- United States Association for Computational Mechanics

- Member, Electorate Nominating Committee, American Association for the Advancement of Science (Section A), 2013–present
- Member, Scientific Council, Centre International de Mathématiques Pures et Appliquées, 2009–present
- Member, National Advisory Committee, Statistical and Applied Mathematical Sciences Institute, 2010–2013
- Member, Ibni Oumar Mahamat Saleh Prize Committee, 2009–present
- Member, AMS Council, 2012–present
- Vice President for Publications, SIAM, 2010–2011
- Member, SIAM Council, 2010–2011
- Chair, SIAM Book Committee, 2010–2011
- Member, SIAM Book Committee, 2013–present
- Member, SIAM Best Paper Prizes Committee, 2007
- Member, SIAM Coordinating Committee for the Joint Mathematics Meetings, 2004–2007
- Member, SIAM Selection Committee for the 2013 Germund Dahlquist Prize
- Member, AWM-SIAM Kovalevsky Lecture Committee, 2012–2014
- Founding Faculty Advisor, SIAM Student Chapter at the University of South Carolina, 2004–2006
- Founding Faculty Advisor, SIAM Student Chapter at Louisiana State University, 2007–present
- Founding Faculty Advisor, AWM Student Chapter at Louisiana State University, 2009–present
- Secretary, Society for the Foundations of Computational Mathematics, 1999–2002
- Member, Board of Directors, Society for the Foundations of Computational Mathematics, 1999–2011
- Member, Scientific Council, Basque Center for Applied Mathematics, 2012

Awards and Honors

2013	Distinguished Visiting Professor (Indian Institute of Technology, Bombay)
2012	AAAS Fellow
2012	AMS Fellow (Inaugural Class)
2011	Sonia Kovalevsky Lectureship (AWM-SIAM Prize)
2010	Michael F. and Roberta Nesbit McDonald Professorship
2010	SIAM Fellow (First Nominated Class)
2009	Rainmaker (Top 100 Faculty), Louisiana State University
2009	Professeur Invité, Université de Paris VI
2009	Overseas Visiting Professor, Chinese Academy of Sciences

- 2008 Rainmaker (Top 100 Faculty), Louisiana State University
- 2008 BCHS Distinguished Graduate
- 2005 Humboldt Forschungspreis
- 2005 Who's Who in Computational Science and Engineering
- 2004 USC Educational Foundation Research Award in Science, Mathematics and Engineering
- 2004 West Chester University Distinguished Alumni Award
- 2002 Professeur Invité, Université de Valenciennes
- 2001 Woman in Residence, West Chester University
- 2001 EPSRC Visiting Fellow, Imperial College, London
- 2000 Gambirinus Fellow, Universität Dortmund
- 2000 Research Professor, Mathematical Sciences Research Institute, Berkeley
- 1998 London Mathematical Society Invited Lecturer (July)
(Imperial College, University of Leeds, University of Loughborough)
- 1997 Visiting Scholar, Chinese University of Hong Kong (August 5–9)
- 1995 Support for Research Program, Institute for Advanced Study/Park City Mathematics Institute
- 1987–1988 Horace H. Rackham Predoctoral Fellowship, The University of Michigan
- 1986 Outstanding Teaching Award, The University of Michigan
- 1983 Chairman's Award for Excellence in Teaching by a First or Second Year Graduate Student, SUNY Stony Brook
- 1980–1981 German Academic Exchange Service (DAAD) Fellowship, Universität Tübingen
- 1980 Graduated summa cum laude, West Chester State College
- 1979 Charles S. Swope Memorial Scholarship, West Chester State College
- 1978 German Academic Exchange Service (DAAD) Scholarship, Schwäbisch Hall

Research Grants

- 2013–2016 Principal Investigator, National Science Foundation Grant, DMS-13-19172
- 2011–2015 Co-Principal Investigator, National Science Foundation Grant, CNS-11-26739 (MRI)
- 2010–2014 Principal Investigator, National Science Foundation Grant, DMS-10-16332
- 2007–2010 Principal Investigator, National Science Foundation Grant, DMS-07-13835
- 2003–2009 Principal Investigator, National Science Foundation Grant, DMS-03-11790
- 2000–2003 Principal Investigator, National Science Foundation Grant, DMS-00-74246
- 2000–2003 Co-Principal Investigator, National Science Foundation Grant, DMS-00-79549 (SCREMS)
- 1996–2000 Principal Investigator, National Science Foundation Grant, DMS-96-00133
- 1992–1996 Principal Investigator, National Science Foundation Grant, DMS-92-09332

and DMS-94-96275

1989–1992 Principal Investigator, National Science Foundation Grant, DMS-89-04911
and DMS-90-96126

Graduate Students

- Doctoral Students: Qingmi He (2000), Jie Zhao (2004), Kening Wang (2006), Luke Owens (2007), Jintao Cui (2010), Armin Reiser (2011), Shiyuan Gu (2012), Zhe Nan (2013), Yi Zhang (2013)
- Master Student: Jun Han (2000)

Postdoctoral Advisees

- Fengyan Li (Postdoctoral Fellow, 2004–2006)
- Thirupathi Gudi (CCT Distinguished Postdoctoral Fellow, 2007–2010)
- Michael Neilan (NSF Postdoctoral Fellow, 2009–2011)
- Andrew T. Barker (VIGRE Postdoctoral Fellow, 2009–2012)
- Eun-Hee Park (Korea Research Foundation Postdoctoral Fellow, 2009–2010; CCT Postdoctoral Fellow, 2010–2012)
- Aycil Çeşmelioglu (IMA Postdoctoral Fellow, 2010–2011)
- Hengguang Li (IMA Postdoctoral Fellow, 2010–2011)
- Christopher B. Davis (VIGRE Postdoctoral Fellow, 2011–)
- Duk-Soon Oh (CCT Postdoctoral Fellow, 2012–)
- Joscha Gedicke (DAAD Postdoctoral Fellow, 2013–)

Member, International Review Panels

- Deutsche Forschungsgemeinschaft (DFG) Excellence Initiative Panel (five panels)
- French Investissements d’Avenir “Laboratoires d’excellence” (one panel)

Member, National Review Panels

- NSF-CBMS Regional Research Conference (three panels)
- NSF Research Planning Grants and Career Advancement Awards for Women and Minorities (one panel)
- NSF Group Infrastructure Grants (one panel)
- NSF REU Sites (four panels)
- AWM Travel Grants Selection Committee (two panels)
- DOE ASCI Site Visit (one panel)
- NSF CAREER (two panels)
- NSF Interdisciplinary Grants in the Mathematical Sciences (two panels)
- NSF-DUE Course Curriculum and Laboratory Improvement (one panel)

- NSF Research Training Group (one panel)
- DOE SciDAC (one panel)
- NSF Numerical PDEs (two panels)
- NSF Mathematical Sciences Postdoctoral Research Fellowship (one panel)

Reviewer

National Science Foundation, Division of Mathematical Sciences:

- Applied Mathematics
- Visiting Professorships for Women
- Research Experiences for Undergraduates
- Research Planning Grants and Career Advancement Awards for Women and Minorities
- Collaborations in Mathematical Geosciences
- Computational Mathematics
- Group Infrastructure Grants
- Infrastructure Program
- International Programs
- Information Technology Research

National Science Foundation, Biomedical Engineering Program

National Science Foundation, Division of Undergraduate Education

Department of Energy, Mathematical, Information, and Computational Sciences Division

European Research Council

Deutsche Forschungsgemeinschaft

Agence Nationale de la Recherche

Nederlandse Organisatie voor Wetenschappelijk Onderzoek

Czech Science Foundation

Fundação para a Ciência e a Tecnologia

External Member

- Ph. D. Committee, Department of Mathematics, University of Jyväskylä, Finland, 2004
- Ph. D. Committee, Department of Mathematics, Indian Institute of Technology, Bombay, India, 2007
- Tenure and Promotion Committee, Department of Mathematics, University of Cyprus, Cyprus, 2009

Referee

- Advances in Computational Mathematics
- Applied Mathematics Letters
- Applied Numerical Mathematics
- BIT
- Computational and Applied Mathematics

- Computer Methods in Applied Mechanics and Engineering
- Computers and Mathematics with Applications
- Constructive Approximation
- Electronic Transactions on Numerical Analysis
- IMA Journal on Numerical Analysis
- Journal of Computational Mathematics
- Journal of Numerical Mathematics
- Journal of the American Mathematical Society
- Journal of Computational Physics
- Journal of Scientific Computing
- Mathematics of Computation
- Numerical Algorithms
- Numerical Linear Algebra With Applications
- Numerical Methods for Partial Differential Equations
- RAIRO Mathematical Modelling and Numerical Analysis
- SIAM Journal on Applied Mathematics
- SIAM Journal on Numerical Analysis
- SIAM Journal on Scientific Computing
- SIAM Review
- Proceedings of the conference “Mathematics of Computation 1943-1993”
- Proceedings of the 4th, 5th, 7th, 12th, 13th and 14th Copper Mountain Conference on Multigrid Methods
- Proceedings of the 10th and 20th Domain Decomposition Methods Conference

Conference Organization

- Co-Organizer of Finite Element Circus, 2012–present
- Organizing Committees
- Computational Engineering, Oberwolfach, Germany, September 27–October 3, 2015
 - IMA Hot Topic Workshop (on the occasion of Douglas N. Arnold’s 60 birthday), Structure Preserving Discretizations of Partial Differential Equations, 2014
 - 2012 SIAM Annual Meeting, Minneapolis, July 9–13, 2012
 - Theory and Applications of Discontinuous Galerkin Methods, Oberwolfach, Germany, February 20–24, 2012
 - Scientific Computing Around Louisiana 2012 (SCALA 2012), LSU, January 20–21, 2012
 - Scientific Computing Around Louisiana 2011 (SCALA 2011), Tulane, January 28–29, 2011

- Simulating Our Complex World: Modeling, Computation and Analysis, IMA Annual Program, Minneapolis, September 2010–June 2011 (Co-Chair)
- Numerical Partial Differential Equations: Fast Solution Techniques, IMA Workshop, Minneapolis, November 29–December 3, 2010
- Numerical Partial Differential Equations: Novel Discretization Techniques, IMA Workshop, Minneapolis, November 1–5, 2010
- Scientific Computing Around Louisiana 2010 (SCALA 2010), LSU, February 5-6, 2010
- Workshop “Metamaterials: applications, analysis and modeling” Institute for Pure and Applied Mathematics, January 25–29, 2010
- Nonstandard Finite Element Methods, Oberwolfach, Germany, August 10–16, 2008
- MATHEON Workshop on Computational Partial Differential Equations, Berlin, Germany, June 6, 2007
- 16th International Conference on Domain Decomposition Methods, New York, January 11–15, 2005

Scientific Committees

- Journées Singulières Augmentées – Conférence en l’honneur de Martin Costabel pour ses 65 ans, Rennes, France, August 26–30, 2013
- CIMPA Research School on Current Trends in Computational Methods for PDEs, Bangalore, India, July 8–19, 2013
- Sixteenth Copper Mountain Conference on Multigrid Methods, USA, March 17–22, 2013
- The International Scientific Committee for Domain Decomposition, 2011–present
- Fourth Chilean Workshop on Numerical Analysis of Partial Differential Equations (WONAPDE 2013), Universidad de Concepcion, Chile, January 14–18, 2013
- International Conference of Numerical Analysis and Applied Mathematics 2012 (ICNAAM 2012), Kos, Greece, September 19–25, 2012
- International Conference of Numerical Analysis and Applied Mathematics 2011 (ICNAAM 2011), Halkidiki, Greece, September 19–25, 2011
- Nonlinear Elliptic Differential Equations, Bifurcation and Local Dynamics of the Parabolic Systems: Numerical Methods and Adaptivity, Marburg, Germany, June 22–24, 2011
- Fifteenth Copper Mountain Conference on Multigrid Methods, USA, March 27–April 1, 2011
- International Conference of Numerical Analysis and Applied Mathematics 2010 (ICNAAM 2010), Rhodes, Greece, September 19–25, 2010
- International Conference of Numerical Analysis and Applied Mathematics 2009 (ICNAAM 2009), Chania, Crete, Greece, September 18–22, 2009
- Fourteenth Copper Mountain Conference on Multigrid Methods, USA, March 22–27, 2009

- 6th International Conference on Recent Trends in Computational Partial Differential Equations (ICCPDE-2008), Mumbai, India, December 10–13, 2008
- International Conference of Numerical Analysis and Applied Mathematics 2008 (ICNAAM 2008), Kos, Greece, September 16–20, 2008
- International Conference of Numerical Analysis and Applied Mathematics 2007 (ICNAAM 2007), Corfu, Greece, September 16–20, 2007
- Fifth Singular Days, Luminy, France, April 23–27, 2007
- Thirteenth Copper Mountain Conference on Multigrid Methods, USA, March 19–23, 2007
- Eighth IMACS International Symposium on Iterative Methods in Scientific Computation, College Station, USA, November 14–17, 2006
- International Conference of Numerical Analysis and Applied Mathematics 2006 (ICNAAM 2006), Hersonnisos, Crete, Greece, September 15–19, 2006
- International Conference on Partial Differential Equations and Numerical Analysis, Changsha, People’s Republic of China, June 22–26, 2006
- International Conference of Numerical Analysis and Applied Mathematics 2005 (ICNAAM 2005), Rhodes, Greece, September 16–20, 2005
- Twelfth Copper Mountain Conference on Multigrid Methods, USA, April 3–8, 2005
- Fifth International Conference on Large Scale Scientific Computations, Sozopol, Bulgaria, June 6–10, 2005
- International Conference of Numerical Analysis and Applied Mathematics 2004 (ICNAAM 2004), Chalkis, Greece, September 10–14, 2004
- Com²MaC Conference on Computational Mathematics, Pohang, South Korea, July 2–5, 2001

Mini-Symposia/Mini-Workshops/Special Sessions

- Mini-symposium: Mathematical Foundations of Computational Mechanics (with Carsten Carstensen), 11th World Congress on Computational Mechanics (WCCM XI-ECCMV), Barcelona, Spain, July 20–25, 2014
- Special Session: Mathematics of Computation (with Chi-Wang Shu), Joint Mathematics Meetings, Baltimore, January 15–18, 2014
- Mini-Symposium: Numerical Methods for Fully Nonlinear Elliptic Equations (with Klaus Böhmer and Michael Neilan), XIVth Conference on the Mathematics of Finite Elements and Applications (MAFELAP 2013), Brunel University, UK, June 11–14, 2013
- Special Session: Mathematics of Computation (with Chi-Wang Shu), Joint Mathematics Meetings, San Diego, January 9–12, 2013
- Mini-Symposium: Solvers for Discontinuous Galerkin Methods (with Blanca Ayuso de Dios), The Twenty-first International Conference on Domain Decomposition Methods, Rennes, June 25–29, 2012

- Mini-Symposium: Generalized Finite Element Methods for PDEs (with Christopher B. Davis), 36th Annual SIAM Southeastern Atlantic Section Conference (SIAM SEAS 2012), University of Alabama in Huntsville, March 24–25, 2012
- Special Session: Mathematics of Computation (with Chi-Wang Shu), Joint Mathematics Meetings, Boston, January 4–7, 2012
- Mini-Symposium: Numerical Treatment of Singularities of PDEs (with Hengguang Li and Victor Nistor), 11th US National Congress on Computational Mechanics, Minneapolis, July 25–29, 2011
- Mini-Symposium: Domain Decomposition for Discontinuous Galerkin Methods (with Blanca Ayuso de Dios), The Twentieth International Conference on Domain Decomposition Methods, San Diego, February 7–11, 2011
- Special Session: Mathematics of Computation (with Chi-Wang Shu), Joint Mathematics Meetings, New Orleans, January 6–9, 2011
- Numerical Methods for High-Order Nonlinear Equations (with Michael Neilan), SIAM Annual Meeting, Pittsburgh, July 12–16, 2010
- Mini-Symposium: GFEM and Numerical Treatment of Singularities (with Constantin Bacuta and Victor Nistor), IV European Conference on Computational Mechanics (ECCM 2010), Paris, May 16–21, 2010
- Special Session: Mathematics of Computation (with Chi-Wang Shu), Joint Mathematics Meetings, San Francisco, January 13–16, 2010
- Special Session: Mathematics of Computation (with Chi-Wang Shu), Joint Mathematics Meetings, Washington, DC, January 5–8, 2009
- Invited Mini-Symposium: Mathematical Foundations of Computational Mechanics (with Carsten Carstensen), Eighth World Congress on Computational Mechanics and ECCOMAS 2008, Venice, Italy, June 30–July 4 2008
- Invited Mini-Symposium: Numerical PDEs (with Ronald Hoppe), International Conference of Numerical Analysis and Applied Mathematics (ICNAAM 2006), Hersonisos, Crete, Greece, September 15–19, 2006
- Mini-Symposium: Computational Methods for Electromagnetism (with Fengyan Li), MAA-SIAM-SEAS 2006, Auburn, March 31–April, 2006
- Mini-Symposium: Advances in Computational Mechanics (with Carsten Carstensen), Fifth International Conference on Large Scale Scientific Computations (LSSC'05), Sozopol, Bulgaria, June 5-10, 2005
- Mini-Symposium: Regional Student Chapter Talks (with Li-yeng Sung), SIAM-SEAS 2005, Charleston, March 25–26, 2005
- Mini-Symposium: Discontinuous Galerkin Methods (with Fengyan Li), SIAM-SEAS 2005, Charleston, March 25–26, 2005
- Invited Mini-Symposium (in honor of Ivo Babuška's eightieth birthday): Advances in the Mathematics of Finite Elements (with Richard Falk), Eighth U.S. Congress for Computational Mechanics, Austin, Texas, July 2005.

- Invited Mini-Symposium: Treatment of Singularities, Sixth World Congress on Computational Mechanics, Beijing, PRC, September 2004.
- Invited Mini-Symposium: Nonconforming Methods: Classical, Mortar and Discontinuous Galerkin, ECCOMAS 2004, Jyväskylä, Finland, July 2004
- Mini-Workshop: Analytical and Numerical Treatment of Singularities in PDE (with Monique Dauge and Anna-Margarete Sändig), Oberwolfach, Germany, November 2002
- Invited Mini-Symposium: Mathematical Foundations of Computational Mechanics (with Carsten Carstensen), Fifth World Congress on Computational Mechanics, Vienna, Austria, July 2002
- Invited Special Session: Numerical Methods for PDEs (with Craig C. Douglas), AMS Southeastern Section Meeting, Chattanooga, TN, October 2001
- Invited Special Session: Numerical Solutions of PDEs (with Jun Zou), AMS-HKMS Joint Meeting, Hong Kong, December 2000
- Invited Mini-Symposium: Finite Element Methods in Mechanics, SIAM Annual Meeting, Atlanta, GA, May 1999
- Invited Mini-Symposium: Finite Element Methods in Mechanics, SIAM Annual Meeting, Charlotte, NC, October 1995

Other Conferences

Finite Element Circus and Finite Element Rodeo, Louisiana State University, March 8–9, 2013

Automating the Development of Scientific Computing Software, Louisiana State University, March 2008

Finite Element Circus and Finite Element Rodeo, Louisiana State University, March 2008

Finite Element Circus, University of South Carolina, April 1996

Publications

Monograph

S.C. Brenner and L.R. Scott, *The Mathematical Theory of Finite Element Methods*, Texts in Applied Mathematics, v. 15, Springer–Verlag, New York

- First edition, 1994
- Second corrected printing, 1996
- Third printing, 1998
- Second edition, 2002
- Second printing, 2004
- Third printing, 2005
- Third edition, 2008
- First edition reprinted by Beijing World Publishing, 1998
- Second edition reprinted by Beijing World Publishing, 2008
- Third edition reprinted by Beijing World Publishing, 2010
- Springer International Edition (Reprint of Third Edition), New Delhi, 2012

Refereed Research Articles

Journal Articles In Print

1. S.C. Brenner, *An optimal order multigrid method for $P1$ nonconforming finite elements*, Mathematics of Computation **52** (1989), 1–15.
2. S.C. Brenner, *An optimal order nonconforming multigrid method for the biharmonic equation*, SIAM Journal on Numerical Analysis **26** (1989), 1124–1138.
3. S.C. Brenner, *A nonconforming multigrid method for the stationary Stokes equations*, Mathematics of Computation **55** (1990), 411–437.
4. S.C. Brenner, *A multigrid method for the lowest order Raviart-Thomas mixed triangular finite element*, SIAM Journal on Numerical Analysis **29** (1992), 647–678.
5. S.C. Brenner and L.-Y. Sung, *Linear finite element methods for planar linear elasticity*, Mathematics of Computation **59** (1992), 321–338.
6. S.C. Brenner, *A nonconforming mixed multigrid method for the pure displacement problem in planar linear elasticity*, SIAM Journal on Numerical Analysis **30** (1993), 116–135.
- 7a. S.C. Brenner, *A nonconforming multigrid method for the pure traction problem in planar linear elasticity*, Mathematics of Computation **63** (1994), 435–460.
- 7b. S.C. Brenner, *Supplement to A nonconforming multigrid method for the pure traction problem in planar linear elasticity*, Mathematics of Computation **63** (1994), S1–S5.
8. S.C. Brenner, *A two-level additive Schwarz preconditioner for two-dimensional stationary Stokes equations*, Advances in Computational Mathematics **4** (1995), 111–126.
9. S.C. Brenner, *A two-level additive Schwarz preconditioner for macro-element approximations of the plate bending problem*, Houston Journal of Mathematics **21** (1995), 823–844.
10. S.C. Brenner, *A two-level additive Schwarz preconditioner for nonconforming plate elements*, Numerische Mathematik **72** (1996), 419–447.
11. S.C. Brenner, *Multigrid methods for parameter dependent problems*, RAIRO Mathematical Modelling and Numerical Analysis **30** (1996), 265–297.
12. S.C. Brenner, *Two-level additive Schwarz preconditioners for nonconforming finite element methods*, Mathematics of Computation **65** (1996), 897–921.
13. S.C. Brenner, *Preconditioning complicated finite elements by simple finite elements*, SIAM Journal on Scientific Computation **17** (1996), 1269–1274.
14. S.C. Brenner, *Two-level additive Schwarz preconditioners for plate elements*, Wuhan University Journal of Natural Sciences **1** (1996), 658–667.
15. S.C. Brenner and L.-Y. Sung, *Multigrid methods for the computation of singular solutions and stress intensity factors II: Crack singularities*, BIT **37** (1997), 623–643.
16. S.C. Brenner, *Overcoming singularities by multigrid methods*, SIAM Journal on Numerical Analysis **35** (1998), 1883–1892.
17. S.C. Brenner, *Convergence of nonconforming multigrid methods without full elliptic regularity*, Mathematics of Computation **68** (1999), 25–53.

18. S.C. Brenner, *Multigrid methods for the computation of singular solutions and stress intensity factors I: Corner singularities*, Mathematics of Computation **68** (1999), 559–583.
19. S.C. Brenner, *A nonstandard finite element interpolation estimate*, Numerical Functional Analysis and Optimization **20** (1999), 245–250.
20. S.C. Brenner and L.-Y. Sung, *Balancing domain decomposition for nonconforming plate elements*, Numerische Mathematik **83** (1999), 25–52.
21. S.C. Brenner, *The condition number of the Schur complement in domain decomposition*, Numerische Mathematik **83** (1999), 187–203.
22. S.C. Brenner, *Lower bounds for two-level additive Schwarz preconditioners with small overlap*, SIAM Journal on Scientific Computation **21** (2000), 1657–1669.
23. S.C. Brenner and L.-Y. Sung, *Lower bounds for nonoverlapping domain decomposition preconditioners in two dimensions*, Mathematics of Computation **69** (2000), 1319–1339.
24. S.C. Brenner and L.-Y. Sung, *Discrete Sobolev and Poincaré inequalities via Fourier series*, East-West Journal of Numerical Mathematics **8** (2000), 83–92.
25. F. Ben Belgacem and S.C. Brenner, *Some nonstandard finite element estimates with applications to 3D Poisson and Signorini problems*, Electronic Transactions on Numerical Analysis (ETNA) **12** (2001), 134–148.
26. S.C. Brenner, *Convergence of the multigrid V-cycle algorithm for second order boundary value problems without full elliptic regularity*, Mathematics of Computation **71** (2002), 507–525.
27. S.C. Brenner, *Smoothers, mesh dependent norms, interpolation and multigrid*, Applied Numerical Mathematics **43** (2002), 45–56.
28. S.C. Brenner and Q. He, *Lower bounds for three-dimensional nonoverlapping domain decomposition algorithms*, Numerische Mathematik **93** (2003), 445–470.
29. S.C. Brenner, *An additive Schwarz preconditioner for the FETI method*, Numerische Mathematik **94** (2003), 1–31.
30. S.C. Brenner, *Poincaré-Friedrichs inequalities for piecewise H^1 functions*, SIAM Journal on Numerical Analysis **41** (2003), 306–324.
31. S.C. Brenner and L.-Y. Sung, *Multigrid methods for the computation of singular solutions and stress intensity factors III: Interface singularities*, Computer Methods in Applied Mechanics and Engineering **192** (2003), 4687–4702.
32. S.C. Brenner, *Analysis of two-dimensional FETI-DP preconditioners by the standard additive Schwarz framework*, Electronic Transactions on Numerical Analysis (ETNA) **16** (2003), 165–185.
33. S.C. Brenner, *Convergence of nonconforming V-cycle and F-cycle multigrid algorithms for second order elliptic boundary value problems*, Mathematics of Computation **73** (2004), 1041–1066.
34. S.C. Brenner, *Korn’s inequalities for piecewise H^1 vector fields*, Mathematics of Computation **73** (2004), 1067–1087.

35. S.C. Brenner, *Discrete Sobolev and Poincaré inequalities for piecewise polynomial functions*, Electronic Transactions on Numerical Analysis (ETNA) **18** (2004), 42–48.
36. S.C. Brenner, K. Wang and J. Zhao, *Poincaré-Friedrichs inequalities for piecewise H^2 functions*, Numerical Functional Analysis and Optimization **25** (2004), 463–478.
37. S.C. Brenner and L.-Y. Sung, *C^0 interior penalty methods for fourth order elliptic boundary value problems on polygonal domains*, Journal of Scientific Computing **22/23** (2005), 83–118.
38. S.C. Brenner and J. Zhao, *Convergence of multigrid algorithms for interior penalty methods*, Applied Numerical Analysis and Computational Mathematics **2** (2005), 3–18.
39. S.C. Brenner and K. Wang, *Two-level additive Schwarz preconditioners for C^0 interior penalty methods*, Numerische Mathematik **102** (2005), 231–255.
40. S.C. Brenner and L.-Y. Sung, *Multigrid algorithms for C^0 interior penalty methods*, SIAM Journal on Numerical Analysis **44** (2006), 199–223.
41. S.C. Brenner and L.-Y. Sung, *BDDC and FETI-DP without matrices or vectors*, Computer Methods in Applied Mechanics and Engineering **196** (2007), 1429–1435.
42. S.C. Brenner, F. Li and L.-Y. Sung, *A locally divergence-free nonconforming finite element method for the time-harmonic Maxwell equations*, Mathematics of Computation **76** (2007), 573–595.
43. S.C. Brenner and L. Owens, *A weakly over-penalized non-symmetric interior penalty method*, Journal of Numerical Analysis, Industrial and Applied Mathematics. **2** (2007), 35–48.
44. S.C. Brenner and L. Owens, *A W-cycle algorithm for a weakly over-penalized interior penalty method*, Computer Methods in Applied Mechanics and Engineering **196** (2007), 3823–3832.
45. S.C. Brenner, F. Li and L.-Y. Sung, *A locally divergence-free interior penalty method for two-dimensional curl-curl problems*, SIAM Journal on Numerical Analysis **46** (2008), 1190–1211.
46. S.C. Brenner, J. Cui, F. Li and L.-Y. Sung, *A nonconforming finite element method for a two-dimensional curl-curl and grad-div problem*, Numerische Mathematik **109** (2008), 509–533.
47. S.C. Brenner, L. Owens and L.-Y. Sung, *A weakly over-penalized symmetric interior penalty method*, Electronic Transactions on Numerical Analysis (ETNA) **30** (2008), 107–127.
48. S.C. Brenner and L.-Y. Sung, *A quadratic nonconforming vector finite element for $H(\text{curl}; \Omega) \cap H(\text{div}; \Omega)$* , Applied Mathematics Letters **22** (2009), 892–896.
49. S.C. Brenner, J. Cui and L.-Y. Sung, *Multigrid methods for the symmetric interior penalty method on graded meshes*, Numerical Linear Algebra with Applications **16** (2009), 481–501.
50. S.C. Brenner, F. Li and L.-Y. Sung, *Nonconforming Maxwell eigensolvers*, Journal of Scientific Computing **40** (2009), 51–85.

51. S.C. Brenner, T. Gudi and L.-Y. Sung, *A posteriori error control for a weakly over-penalized symmetric interior penalty method*, Journal of Scientific Computing **40** (2009), 37–50.
52. S.C. Brenner, F. Li and L.-Y. Sung, *A nonconforming penalty method for a two-dimensional curl-curl problem*, Mathematical Models and Methods in Applied Sciences **19** (2009), 651–668.
53. S.C. Brenner, J. Cui and L.-Y. Sung, *An interior penalty method for a two dimensional curl-curl and grad-div problem*, Australian & New Zealand Industrial and Applied Mathematics Journal **50** (2009), C947–C975.
54. S.C. Brenner, T. Gudi and L.-Y. Sung, *An a posteriori error estimator for a quadratic C^0 interior penalty method for the biharmonic problem*, IMA Journal of Numerical Analysis **30** (2010), 777–798.
55. S.C. Brenner, T. Gudi, L. Owens and L.-Y. Sung, *An intrinsically parallel finite element method*, Journal of Scientific Computing **42** (2010), 118–121.
56. S.C. Brenner, T. Gudi and L.-Y. Sung, *A weakly over-penalized symmetric interior penalty method for the biharmonic problem*, Electronic Transactions on Numerical Analysis (ETNA) **37** (2010), 214–238.
57. A.T. Barker, S.C. Brenner, E.-H. Park and L.-Y. Sung, *Two-level additive Schwarz preconditioners for a weakly over-penalized symmetric interior penalty method*, Journal of Scientific Computing **47** (2011), 27–49.
58. S.C. Brenner and M. Neilan, *A C^0 interior penalty method for a fourth order elliptic singular perturbation problem*, SIAM Journal on Numerical Analysis **49** (2011), 869–892.
59. S.C. Brenner, J. Cui, T. Gudi and L.-Y. Sung, *Multigrid algorithms for symmetric discontinuous Galerkin methods on graded meshes*, Numerische Mathematik **119** (2011), 21–47.
60. S.C. Brenner, T. Gudi, M. Neilan and L.-Y. Sung, *C^0 penalty methods for the fully nonlinear Monge-Ampère equation*, Mathematics of Computation **80** (2011), 1979–1995.
61. A.T. Barker, S.C. Brenner and L.-Y. Sung, *Overlapping Schwarz domain decomposition preconditioners for the local discontinuous Galerkin method for elliptic problems*, Journal of Numerical Mathematics **19** (2011), 165–187.
62. S.C. Brenner, J. Cui, Z. Nan and L.-Y. Sung, *Hodge decomposition for divergence-free vector fields and two-dimensional Maxwell’s equations*, Mathematics of Computation **81** (2012), 643–659.
63. S.C. Brenner, L. Owens and L.-Y. Sung, *Higher order weakly over-penalized symmetric interior penalty methods*, Journal of Computational and Applied Mathematics **236** (2012), 2883–2894.
64. S.C. Brenner, L.-Y. Sung and Y. Zhang, *Finite element methods for the displacement obstacle problem of clamped plates*, Mathematics of Computation **81** (2012), 1247–1262.

65. S.C. Brenner and M. Neilan, *Finite element approximations of the three dimensional Monge-Ampère equation*, ESAIM-Mathematical Modelling and Numerical Analysis **46** (2012), 979–1001
66. P.F. Antonietti, B. Ayuso de Dios, S.C. Brenner and L.-Y. Sung, *Schwarz methods for a preconditioned WOPSIP method for elliptic problems*, Computational Methods in Applied Mathematics **12** (2012), 241–272.
67. S.C. Brenner, T. Gudi, S. Gu and L.-Y. Sung, *A quadratic C^0 interior penalty method for linear fourth order boundary value problems with boundary conditions of the Cahn-Hilliard type*, SIAM Journal on Numerical Analysis **50** (2012), 2088–2110.
68. S.C. Brenner and K. Wang, *An iterative substructuring algorithm for a C^0 interior penalty method*, Electronic Transactions on Numerical Analysis **39** (2012), 313–332.
69. S.C. Brenner, L.-Y. Sung, H. Zhang and Y. Zhang, *A quadratic C^0 interior penalty method for the displacement obstacle problem of clamped Kirchhoff plates*, SIAM Journal on Numerical Analysis **50** (2012), 3329–3350.
70. S.C. Brenner, E.-H. Park and L.-Y. Sung, *A balancing domain decomposition by constraints preconditioner for a weakly over-penalized symmetric interior penalty method*, Numerical Linear Algebra with Applications **20** (2013), 472–491.
71. S.C. Brenner, J. Gedicke and L.-Y. Sung, *An adaptive P_1 finite element method for two-dimensional Maxwell's equations*, Journal of Scientific Computing **55** (2013), 738–754.
72. S.C. Brenner, M. Neilan and L.-Y. Sung, *Isoparametric C^0 interior penalty methods*, Calcolo **50** (2013), 35–67.
73. S.C. Brenner, *An additive analysis of multiplicative Schwarz methods*, Numerische Mathematik **123** (2013), 1–19.
74. S.C. Brenner, L.-Y. Sung, H. Zhang and Y. Zhang, *A Morley finite element method for the displacement obstacle problem of clamped Kirchhoff plates*, Journal of Computational and Applied Mathematics **254** (2013), 31–42.
75. A.T. Barker and S.C. Brenner, *A mixed finite element method for the Stokes equations based on a weakly over-penalized symmetric interior penalty approach*, Journal of Scientific Computing, published online June 2, 2013. (DOI:10.1007/s10915-013-9733-9)
76. S.C. Brenner, C.B. Davis and L.-Y. Sung, *A partition of unity method for the displacement obstacle problem of clamped Kirchhoff plates*, Journal of Computational and Applied Mathematics, published on line October 23, 2013. (DOI: 10.1016/j.cam.2013.09.033)

Articles in Refereed Proceedings

1. S.C. Brenner, *Multigrid methods for nonconforming finite elements*, in Proceedings of the Fourth Copper Mountain Conference on Multigrid Methods, J. Mandel, et.al., ed., Society for Industrial and Applied Mathematics, Philadelphia, 1989, pp. 54–65.
2. S.C. Brenner, *Two-level additive Schwarz preconditioners for nonconforming finite elements*, in Domain Decomposition Methods in Scientific and Engineering Computing,

Contemporary Mathematics, v. 180, D.E. Keyes and J. Xu, ed., American Mathematical Society, Providence, 1994, pp. 9–14.

3. S.C. Brenner and L.-Y. Sung, *Lower bounds for two-level additive Schwarz preconditioners for nonconforming finite elements*, Advances in Computational Mathematics, Z. Chen et al., ed., Lecture Notes in Pure and Applied Mathematics **202**, Marcel Dekker, 1998, pp. 585–604.
4. S.C. Brenner, *A new look at FETI*, Proceedings of the Thirteenth International Conference on Domain Decomposition Methods, N. Debit, M. Garbey, R. Hoppe, J. Périaux, D. Keyes and Y. Kuznetsov, ed., DDM.org, 2001, pp. 41–51.
5. S.C. Brenner, *Lower bounds in domain decomposition*, *Domain Decomposition Methods in Science and Engineering XVI*, O.B. Widlund and D.E. Keyes, ed., Springer-Verlag, Berlin-Heidelberg, 2007, pp. 27–39.
6. S.C. Brenner, *A functional analytic framework for BDDC and FETI-DP*, *Domain Decomposition Methods in Science and Engineering XVII*, U. Langer, M. Discacciati, D. Keyes, O. Widlund and W. Zulehner, ed., Springer-Verlag, Berlin-Heidelberg, 2008, pp. 239–246.
7. S.C. Brenner, S. Gu and L.-Y. Sung, *Multigrid methods for the biharmonic problem with Cahn-Hilliard boundary conditions*, *Domain Decomposition Methods in Science and Engineering XX*, Lecture Notes in Computational Science and Engineering 91, R.E. Bank, M.J. Holst, O.B. Widlund and J. Xu ed., Springer, 2013, pp. 129–136.
8. A.T. Barker, S.C. Brenner, E.-H. Park and L.-Y. Sung, *A nonoverlapping DD preconditioner for a weakly over-penalized symmetric interior penalty method*, *Domain Decomposition Methods in Science and Engineering XX*, Lecture Notes in Computational Science and Engineering 91, R.E. Bank, M.J. Holst, O.B. Widlund and J. Xu ed., Springer, 2013, pp. 257–264.

Articles In Press

- S.C. Brenner, L.-Y. Sung and Y. Zhang, *A C^0 interior penalty method for an elliptic optimal control problem with state constraints*, to appear in the Proceedings of the 2012 John H. Barrett Memorial Lectures (IMA Volumes in Mathematics and Its Applications **157**).
- S.C. Brenner and L.-Y. Sung, *Piecewise H^1 functions and vector fields associated with meshes generated by independent refinements*, to appear in *Mathematics of Computation*.
- A.T. Barker, S.C. Brenner, E.-H. Park and L.-Y. Sung, *A one-level additive Schwarz preconditioner for a discontinuous Petrov-Galerkin method*, to appear in the Proceedings of Domain Decomposition Methods in Science and Engineering XXI.

Articles Submitted for Publication

1. S.C. Brenner, H. Li and L.-Y. Sung, *Multigrid methods for saddle point problems: Stokes and Lamé systems*
2. S.C. Brenner and D.-S. Oh *A multigrid method for $H(\text{div})$ in three dimensions with a nonoverlapping domain decomposition smoother*

3. S.C. Brenner, C.B. Davis and L.-Y. Sung, *A partition of unity method for a class of fourth order elliptic variational inequalities*
4. S.C. Brenner, L.-Y. Sung and Y. Zhang, *Post-processing procedures for an elliptic distributed optimal control problem with pointwise state constraints*

Chapters in Books

1. S.C. Brenner and C. Carstensen, *Finite Element Methods*, in *Encyclopedia of Computational Mechanics*, pages 73–118, E. Stein, R. de Borst and T.J.R. Hughes, eds., Wiley, Weinheim, 2004.
2. S.C. Brenner, C. Carstensen and P. Monk, eds., *Nonstandard Finite Elements*, pages 2027–2093, Oberwolfach Report 2008.
3. S.C. Brenner, *Fast Solvers for Mixed Finite Element Methods*, in *Mixed Finite Element Technologies*, pages 57–88, P. Wriggers and C. Carstensen, eds., Springer, Wien-New York, 2009.
4. S.C. Brenner, *C^0 Interior Penalty Methods*, in *Frontiers in Numerical Analysis—Durham 2010*, pages 79–147, J. Blowey and M. Jensen, eds., Springer-Verlag, Berlin-Heidelberg, 2012.
5. S.C. Brenner, R.H.W. Hoppe and B. Rivière, eds., *Theory and Applications of Discontinuous Galerkin Methods*, pages 555–609, Oberwolfach Report 2012

Book Review

Finite Element Methods: Fifty Years of the Courant Element, M. Křížek, P. Neittaanmäki and R. Stenberg, eds., *Mathematics of Computation* **65** (1996), 1365.

Extended Abstracts

1. S.C. Brenner and L.-Y. Sung, *New smoothers for the Stokes problem*, *Schnelle Löser für Partielle Differentialgleichungen*, Oberwolfach Report 24/2005, pp. 1338–1341.
2. S.C. Brenner, J. Cui, F. Li, J. Liu and L.-Y. Sung, *Nonconforming Maxwell eigen-solvers*, *Linear and Nonlinear Eigenproblems for PDEs*, Oberwolfach Report 37/2009, pp. 2040–2042.
3. A.T. Barker, S.C. Brenner, E.-H. Park, L.-Y. Sung and K. Wang, *DD for DG*, *Schnelle Löser für Partielle Differentialgleichungen*, Oberwolfach Report 28/2011, pp. 1523–1525.
4. S.C. Brenner, C.B. Davis, L.-Y. Sung, H. Zhang and Y. Zhang, *Finite element methods for a fourth order obstacle problem*, *Advanced Computational Engineering*, Oberwolfach Report 09/2012, pp. 492–495.
5. S.C. Brenner, E.-H. Park and L.-Y. Sung, *BDDC for SIPG*, *Theory and Applications of Discontinuous Galerkin Methods*, Oberwolfach Report 10/2012, pp. 593–596.

Research Presentations

Plenary Addresses

- *TBA*, 26th Biennial Numerical Analysis Conference, University of Strathclyde, Glasgow, Scotland, June 23–26, 2015
- *TBA*, AMS Invited Speaker, Greensboro, North Carolina, November 8–9, 2014
- *TBA*, International Conference On Spectral and High Order Methods (ICOSAHOM), Salt Lake City, June 23–27, 2014
- *C⁰ Interior Penalty Methods*, Copper Country Summer Workshop on Numerical Analysis and Inverse Problems, Michigan Technological University, August 12–14, 2013
- *Forty Years of the Crouzeix-Raviart Element*, Babuška Lecture, XIVth Conference on the Mathematics of Finite Elements and Applications (MAFELAP 2013), Brunel University, UK, June 11–14, 2013
- *C⁰ Interior Penalty Methods*, South African Numerical and Applied Mathematics Symposium (SANUM 2013), Stellenbosch, South Africa, April 3–5, 2013
- *C⁰ Interior Penalty Methods*, Fourth Chilean Workshop on Numerical Analysis of Partial Differential Equations (WONAPDE 2013), Universidad de Concepcion, Chile, January 14–18, 2013
- *Can We Trust Numerical Solutions of PDEs?*, 70th Midwest PDE Seminar, University of Memphis, November 3–4, 2012
- *Finite Element Methods for Fourth Order Obstacle Problems*, Computational Methods in Applied Mathematics (CMAM-5), Berlin, Germany, July 30–August 3, 2012
- *Finite Element Methods for Fourth Order Obstacle Problems*, International Conference on Computational Sciences, Shanghai, PRC, July 16–20, 2012
- *Finite Element Methods for a Fourth Order Obstacle Problem*, 36th Annual SIAM Southeastern Atlantic Section Conference (SIAM SEAS 2012), University of Alabama in Huntsville, March 24–25, 2012
- *A Cautionary Tale in Numerical PDEs*, Sonia Kovalevsky Lecture, 7th International Congress on Industrial and Applied Mathematics - ICIAM 2011, Vancouver, Canada, July 18–22, 2011
- *Finite Element Methods for the Monge-Ampère Equation*, The 30th Annual Southeast Atlantic Regional Conference on Differential Equations (SEARCDE), Virginia Tech, October 1–2, 2010
- *C⁰ Interior Penalty Methods for Fourth Order Problems*, South-Eastern Applied Mathematical Sciences (SEAMS) Workshop, College of Charleston, September 24–26, 2010
- *C⁰ Interior Penalty Methods for Fourth Order Problems*, Applied Mathematics International Conference 2010/The 6th East Asia SIAM Conference, Kuala Lumpur, Malaysia, June 22–24, 2010

- *Discontinuous Galerkin Methods on Graded Meshes*, 6th Singular Days, Weierstrass-Institut für Angewandte Analysis und Stochastik, Berlin, April 29–May 1, 2010
- *C^0 Interior Penalty Methods for Fourth Order Problems*, Red Raider Mini-Symposium, Texas Tech University, October 29–31, 2009
- *Fast Solvers for C^0 Interior Penalty Methods*, International Conference on Recent Trends in Computational Partial Differential Equations (ICCPDE-2008), Mumbai, India, December 10–13, 2008
- *Nonconforming Methods for Electromagnetics*, The 14th Biennial Computational Techniques and Applications Conference, Australian National University, Canberra, ACT, Australia, July 13-16, 2008
- *Nonconforming Methods for Electromagnetics*, The 6th International Conference on Scientific Computing and Applications, Pusan National University, Busan, South Korea, June 2-5, 2008
- *Nonconforming Methods for Electromagnetics*, Third Workshop on Numerical Methods for Evolution Equations, Heraklion, Crete, Greece, September 22-23, 2006
- *A Nonconforming Method for the Time-Harmonic Maxwell's Equations*, International Conference on Partial Differential Equations and Numerical Analysis, Changsha, Hunan, China, June 22–26, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, Numerical PDEs in the 21st Century, Santa Fe, NM, April 20–22, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, MAA-SIAM Southeast Atlantic Section Meeting, Auburn, Alabama, March 31–April 1, 2006
- *Multigrid and Domain Decomposition Algorithms for C^0 Interior Penalty Methods*, The Fourth International Workshop on Scientific Computing and Its Applications, Shanghai, China, June 20–23, 2005
- *Additive Multigrid Theory*, Fifth International Conference on Large Scale Scientific Computations (LSSC'05), Sozopol, Bulgaria, June 5–10, 2005
- *Lower Bounds in Domain Decomposition*, 16th International Conference on Domain Decomposition Methods, New York, January 12–15, 2005
- *Multigrid and Domain Decomposition Algorithms for C^0 Interior Penalty Methods*, International Conference of Numerical Analysis and Applied Mathematics 2004 (ICNAAM 2004), Chalkis, Greece, September 10–14, 2004
- *Multigrid Methods for Singular Solutions and Stress Intensity Factors*, Southeast Conference on Applied Mathematics (SECAM), Raleigh, North Carolina, November 9–11, 2001
- *Additive Multigrid Theory*, AMS Invited Speaker, Chattanooga, Tennessee, October 5–6, 2001

- *Additive Multigrid Theory*, Numerical Analysis Section Plenary Talk, 15 ÖMG-Kongress Jahrestagung der Deutschen Mathematikervereinigung, Vienna, Austria, September 16–22, 2001 (trip cancelled due to the events on September 11)
- *Additive Multigrid Theory*, 19th Biennial Conference on Numerical Analysis, Dundee, Scotland, June 26–29, 2001
- *A New Look at FETI*, 13th International Conference on Domain Decomposition Methods, Lyon, France, October 9–12, 2000

Semi-Plenary Address

- *C^0 Interior Penalty Methods for Fourth Order Problems*, Modern Computational Methods in Applied Mathematics (MCM 2004), Będlewo, Poznań, Poland, June 14–19, 2004

Short Courses

- *C^0 Interior Penalty Methods*, CIMPA Research School on Current Trends in Computational Methods for PDEs, Indian Institute of Science, Bangalore, India, July 8–19, 2013
- *Fast Solvers for Discontinuous Galerkin Methods*, Advanced Workshop on Nonstandard Finite Element Methods, IIT Bombay, Mumbai, India, February 11–15, 2013
- *Geometric Multigrid Methods*, IMA Tutorial: Fast Solution Techniques, University of Minnesota, Minneapolis, November 28–29, 2010
- *Finite Element Methods*, 12th LMS-EPSRC Summer School in Computational Mathematics and Scientific Computing, University of Durham, England, July 25–31, 2010
- *Discontinuous Galerkin Methods*, LSEC, Chinese Academy of Sciences, Beijing, PRC, September 18, September 25, October 9 and October 12, 2009
- *Principal lecturer, Mixed Finite Element Technologies*, International Centre For Mechanical Sciences, Udine, Italy, September 26–30, 2005

Presentations at Mathematisches Forschungsinstitut Oberwolfach

- *TBA*, Schnelle Löser für Partielle Differentialgleichungen, May 11–17, 2014
- *Finite Element Methods for a Fourth Order Obstacle Problem*, Advanced Computational Engineering, February 13–17, 2012
- *DD for DG*, Schnelle Löser für Partielle Differentialgleichungen, May 22–28, 2011
- *Nonconforming Maxwell Eigensolvers*, Linear and Nonlinear Eigenproblems for PDEs, August 9–15, 2009
- *New Smoothers for the Stokes Problem*, Schnelle Löser für Partielle Differentialgleichungen, May 22–28, 2005
- *Multigrid Methods for C^0 Interior Penalty Methods*, Schnelle Löser für Partielle Differentialgleichungen, June 1–6, 2003
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Mini-Workshop: Analytical and Numerical Treatment of Singularities in PDE, November 4–8, 2002

- *An Additive Theory for Multigrid V-cycle Algorithms*, Schnelle Löser für Partielle Differentialgleichungen, May 27–June 2, 2001
- *Multigrid Methods for Interface Problems*, Schnelle Löser für Partielle Differentialgleichungen, May 30–June 5, 1999
- *Lower Bounds in Domain Decomposition*, Domain Decomposition and Multifield Theories, April 27–May 1, 1998
- *Convergence of Nonconforming or Nonnested Multigrid Methods without Full Elliptic Regularity*, Multilevel Methods and Applications, April 30–May 6, 1995
- *Multigrid Methods for Parameter Dependent Problems*, Numerical Methods in Computational Mechanics, January 31–February 6, 1993

Invited Addresses

- *Finite Element Methods for Fourth Order Elliptic Variational Inequalities*, Hackbusch Fest, Leipzig, Germany, October 28–30, 2013
- *A Multigrid Method for Two Dimensional Maxwell Interface Problems*, Journées Singulières Augmentées 2013, Rennes, France, August 26–August 30, 2013
- *Finite Element Methods for Fourth Order Variational Inequalities*, 2013 Clifford Lectures conference, Tulane University, March 13–16, 2013
- *Can We Trust Numerical Solutions of PDEs?*, Third Indo-German Workshop on Adaptive Finite Element Methods (WAFEM-2013), The Institute of Mathematics and Applications, Bhubaneswar, India, February 13–March 2, 2013
- *C^0 Interior Penalty Methods*, 2012 John H. Barrett Memorial Lectures, University of Tennessee at Knoxville, May 9–11, 2012
- *Domain Decomposition Algorithms for Discontinuous Galerkin Methods for Fourth Order Problems*, Discontinuous Galerkin Methods for Partial Differential Equations, Heraklion, Greece, September 26–28, 2011
- *Finite Element Methods for a Fourth Order Obstacle Problem*, Nonlinear Elliptic Differential Equations, Bifurcation and Local Dynamics of the Parabolic Systems: Numerical Methods and Adaptivity, Marburg, Germany, June 22–24, 2011
- *Finite Element Methods for a Fourth Order Obstacle Problem*, Workshop on Advances in Numerical Analysis and Scientific Computing, University of Houston, April 15–16, 2011
- *Fast Solvers for Higher Order Problems*, IMA Workshop on Numerical Partial Differential Equations: Fast Solution Techniques, University of Minnesota, November 29–December 3, 2010
- *Fast Solvers for C^0 Interior Penalty Methods*, Fast Algorithms for Scientific Computing, A Symposium in Honor of Olof B. Widlund on the Occasion of His 70th Birthday, Courant Institute, New York University, New York City, September 19–20, 2008

- *Multigrid Algorithms for Weakly-Overpenalized Interior Penalty Methods*, Discontinuous Galerkin Methods for Partial Differential Equations, Banff International Research Station, Canada, November 25–30, 2007
- *Fast Solvers for C^0 Interior Penalty Methods*, MATHEON Workshop on Computational Partial Differential Equations, Berlin, Germany, February 2, 2006
- *Discontinuous Versions of Some Classical Inequalities*, ETNA's Tenth Anniversary Conference, Kent, Ohio, May 29–31, 2003
- *An Additive Theory for V-cycle Multigrid Algorithms*, Simulation Techniques for Fluid and Structural Mechanics, Universität Dortmund, Germany, September 22–23, 2000
- *Multigrid Methods for Interface Problems, Treatment of Singularities*, p-FEM 2000, Conference in Honor of Barna Szabò's 60th Birthday, St. Louis, Missouri, May 31–June 2, 2000
- *Domain Decomposition for Nonconforming Plate Elements*, Workshop on the Parallel Solution of PDE, Institute for Mathematics and its Applications, University of Minnesota, Minneapolis, Minnesota, June 9–13, 1997

Invited Conference Talks

- *Weakly Over-Penalized Symmetric Interior Penalty Methods*, Conference on Emerging Topics in Dynamical Systems and Partial Differential Equations (DSPDEs'10), Barcelona, May 31–June 4, 2010
- *Nonconforming Maxwell Eigensolvers*, ECCOMAS 4th European Conference on Computational Mechanics (ECCM 2010), Paris, May 17–21, 2010
- *Nonconforming Methods for Maxwell's Equations on Graded Meshes* 2nd South-East European Conference on Computational Mechanics (SEECCM 2009), Rhodes, Greece, June 22–24, 2009
- *Multigrid for Symmetric DG Methods on Graded Meshes*, 2009 International Conference on Scientific Computation and Differential Equations (SciCADE09), Beijing, PRC, May 25–29, 2009
- *Interior Penalty Methods for Second and Fourth Order Problems*, Workshop Presentation, Australian National University, Canberra, ACT, Australia, July 17, 2008
- *An A Posteriori Error Estimator for a Quadratic C^0 Interior Penalty Method for the Biharmonic Problem*, WCCM 8/ECCOMAS 08, Venice, Italy, June 30–July 4, 2008
- *Multigrid Algorithms for Some New Interior Penalty Methods*, Minisymposium: Discontinuous Galerkin Methods, The Sixth International Congress on Industrial and Applied Mathematics, Zurich, Switzerland, July 16–20, 2007
- *Multigrid Algorithms for Some New Interior Penalty Methods*, Eighth IMACS International Symposium on Iterative Methods in Scientific Computation, Texas A& M University, College Station, TX, November 14–17, 2006
- *A W-Cycle Multigrid Algorithm for a New NIPG Multigrid Method*, Mini-Symposium on Numerical PDEs, International Conference of Numerical Analysis and Applied

Mathematics 2006 (ICNAAM 2006), Hersonnisos, Crete, Greece, September 15–19, 2006

- *A Functional Analytic Framework for BDDC and FETI-DP*, Mini-Symposium, 17th International Conference on Domain Decomposition Methods, St. Wolfgang/Strobl, Austria, July 3–7, 2006
- *Multigrid and Domain Decomposition for C^0 Interior Penalty Methods*, Minisymposium: Scientific Computing, 16th Internationaler Kongress der ÖMG/DMV, Mathematik 2005, Klagenfurt, Austria, September 18–23, 2005
- *Fast Solvers for C^0 Interior Penalty Methods*, United States National Congress on Computational Mechanics (USNCCM 2005), Austin, Texas, July 25–27, 2005
- *Multigrid Algorithms for C^0 Interior Penalty Methods*, Computational Methods in Multiscale Analysis and Applications, University of Florida, Gainesville, February 29–March 2, 2004
- *Multigrid Methods for C^0 Interior Penalty Methods*, Recent Advances and State-of-the-Art in Discontinuous Galerkin Methods in Computational Structural Mechanics, Army High Performance Computing Research Center, Minneapolis, October 28–29, 2003
- *Discontinuous Versions of Some Classical Inequalities*, Minisymposium: Discontinuous Galerkin Method and its Applications, The Fifth International Congress on Industrial and Applied Mathematics, Sydney, Australia, July 7–11, 2003
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Minisymposium: Boundary Value Problems with Boundary Singularities and Related Methods, The Fifth International Congress on Industrial and Applied Mathematics, Sydney, Australia, July 7–11, 2003
- *Additive Multigrid Theory*, Workshop on Foundations of Numerical Algorithms for PDEs, Foundations of Computational Mathematics (FoCM) Conference, University of Minnesota, Minneapolis, Minnesota, August 5–7, 2002
- *Multigrid Methods for Two-Dimensional Interface Problems*, Fifth World Congress on Computational Mechanics, Vienna, Austria, July 2002
- *Multigrid Methods for Two-Dimensional Interface Problems*, Session on the Numerical Solution of PDEs, Joint AMS-HKMS Meeting, Hong Kong, December 13–16, 2000
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Innovative Finite Element Computations in Continuum Mechanics, 15th IMACS World Congress, Berlin, Germany, August 24–29, 1997
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Guangzhou International Symposium on Computational Mathematics, Zhongshan University, Guangzhou, China, August 11–15, 1997 (NSF Supported Speaker)
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Third IMACS International Symposium on Iterative Methods in Scientific Computation, Jackson

Hole, Wyoming, July 9–12, 1997

- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Approximation and PDEs, Foundations of Computational Mathematics, Rio de Janeiro, Brazil, January 5–12, 1997
- *Multigrid Methods for Stress Intensity Factors*, Workshop on Iterative Methods, International Linear Algebra Year, CERFACS (Centre Européen de Recherche et de Formation Avancée en Calcul Scientifique), Toulouse, France, June 10–13, 1996
- *A Two-level Additive Schwarz Preconditioner for Macro-element Approximations of the Plate Bending Problem*, Session on Mixed and Finite Element Methods, 14th World Congress of the International Association for Mathematics and Computers in Simulation (IMACS), Atlanta, Georgia, July 11–15, 1994
- *Two-level Additive Schwarz Preconditioners for Plate Elements*, International Conference on Parallel Algorithms 1995 (ICPA'95), Wuhan, China, October 15–19, 1995
- *Two-level Additive Schwarz Preconditioners for Some Plate Elements*, International Workshop on Multilevel Methods, Meisdorf, Germany, September 26–28, 1994
- *A Two-level Additive Schwarz Preconditioner for Macro-element Approximations of the Plate Bending Problem*, Session on Mixed and Finite Element Methods, 14th World Congress of the International Association for Mathematics and Computers in Simulation (IMACS), Atlanta, Georgia, July 11–15, 1994
- *Nonconforming Multigrid Methods*, Mini-symposium on Nonconforming and Non-nested Multigrid Methods, SIAM summer meeting, San Diego, California, July 17–21, 1989
- *Multigrid Methods for Some Nonconforming Finite Elements*, Fourth Copper Mountain Conference on Multigrid Methods, Copper Mountain, Colorado, April 9–13, 1989

Colloquia and Invited Seminar Talks

- *Can We Trust Numerical Solutions of PDEs?*, colloquium, TIFR Centre for Applicable Mathematics, Bangalore, India, July 17, 2013
- *Nonconforming Finite Element Methods for the Maxwell Eigenproblem*, colloquium, Department of Mathematics, University of Minnesota, October 14, 2010
- *C^0 Interior Penalty Methods for Fourth Order Problems*, colloquium, Computational and Applied Mathematics Department, Rice University, April 5, 2010
- *Nonconforming Maxwell Eigensolvers*, Université de Paris VI, Laboratoire Jacques-Louis Lions, Paris, France, December 14, 2009
- *Nonconforming Methods for Electromagnetics*, ICES Seminar, University of Texas at Austin, February 26, 2009
- *Nonconforming Methods for Electromagnetics*, Humboldt Universität, Berlin, Germany, June 19, 2008
- *C^0 Interior Penalty Methods*, University of Tennessee, Knoxville, TN, March 27, 2008

- *Nonconforming Methods for Electromagnetics*, Wayne State University, Detroit, MI, November 12, 2007
- *Nonconforming Methods for Electromagnetics*, Colorado State University, Fort Collins, CO, September 28, 2007
- *Nonconforming Methods for Electromagnetics*, Consiglio Nazionale delle Ricerche, Pavia, Italy, July 3, 2007
- *Nonconforming Methods for Electromagnetics*, Oberseminar: Numerik/Wissenschaftliches Rechnen, Max-Planck Institute, Leipzig, Germany, June 20, 2007
- *A Nonconforming Method for the Time-Harmonic Maxwell Equations*, McGill University, Montreal, Canada, November 27, 2006
- *Additive Multigrid Theory*, Emory University, Atlanta, GA, October 10, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, Georgia Tech University, Atlanta, GA, October 11, 2006
- *A Nonconforming Method for the Time-Harmonic Maxwell Equations*, Universität Augsburg, Augsburg, Germany, July 28, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, Xiangtan University, Xiangtan, China, June 22, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, Hunan University, Changsha, China, June 21, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, Hunan Normal University, Changsha, China, June 20, 2006
- *A Nonconforming Method for the Time-Harmonic Maxwell Equations*, Oberseminar, Freie Universität Berlin, Berlin, Germany, May 12, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, University of Maryland, April 4, 2006
- *Fast Solvers for C^0 Interior Penalty Methods*, Louisiana State University, March 24, 2006
- *Additive Multigrid Theory*, Louisiana State University, February 18, 2005
- *Additive Multigrid Theory*, Institute of Computational Mathematics, Chinese Academy of Science, Beijing, September 7, 2004
- *Discontinuous Versions of Some Classical Inequalities*, Humboldt-Universität zu Berlin, June 25, 2004
- *Discontinuous Versions of Some Classical Inequalities*, University of Maryland at Baltimore County, May 7, 2004
- *Additive Multigrid Theory*, University of Houston, April 2, 2004
- *Discontinuous Versions of Some Classical Inequalities*, University of Houston, February 5, 2004
- *Additive Multigrid Theory*, Illinois Institute of Technology, January 30, 2004
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Clemson University, March 13, 2003

- *Additive Multigrid Theory*, University of Minnesota, January 31, 2002
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Johns Hopkins University, November 12, 2001
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Imperial College, May 4, 2001
- *Iterations: from Newton to Teraflops Computing*, West Chester University, March 29, 2001
- *What is a Finite Element?*, West Chester University, March 28, 2001
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, The University of Reading, February 16, 2001
- *An Additive Theory for Multigrid V-cycle Algorithms*, Universität Leipzig, October 31, 2000
- *An Additive Theory for Multigrid V-cycle Algorithms*, University of Warsaw, October 26, 2000
- *Iterationen: Von Newton ins Teraflop-Zeitalter*, Gambrinus Lecture, Universität Dortmund, October 4, 2000
- *Multigrid Methods for Nonconforming Finite Elements II*, Universität Dortmund, September 12, 2000
- *Multigrid Methods for Nonconforming Finite Elements I*, Universität Dortmund, September 11, 2000
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions: An Application of Superconvergence*, Superconvergence Workshop, MSRI, Berkeley, CA, March 20–31, 2000
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, University of Loughborough, July 17, 1998
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, University of Leeds, July 16, 1998
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Imperial College, University of London, July 14, 1998
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Scientific Computation Seminar, University of Houston, May 8, 1998
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Applied Math Seminar, Duke University, February 23, 1998
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Virginia Tech University March 28, 1997
- *Nonconforming Finite Elements*, IMA Postdoc Seminar, Institute for Mathematics and its Applications, University of Minnesota, March 11, 1997
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, TICAM Seminar, University of Texas at Austin, February 20, 1997

- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Numerical Analysis Seminar, University of Minnesota, February 6, 1997
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, University of Colorado at Denver, November 4, 1996
- *Multigrid Methods for Nonconforming Finite Elements*, Otto-von-Guericke Universität, Magdeburg, Germany, September 29, 1994
- *Multigrid Methods for Parameter Dependent Problems*, University of Colorado at Denver, March 10, 1994
- *Multigrid Methods for Parameter Dependent Problems*, University of South Carolina, May 14, 1993
- *Multigrid for Nonconforming Finite Element Methods*, Chinese University of Hong Kong, June 25, 1992
- *Multigrid Methods for Nonconforming Finite Elements*, Clarkson University, November 21, 1988
- *Multigrid Methods for Nonconforming Finite Elements*, St. Lawrence University, March 30, 1988
- *Multigrid Methods for Nonconforming Finite Elements*, SUNY at Potsdam, March 1988

Contributed Conference and Seminar Talks

- *Multiplicative Schwarz Methods*, Finite Element Circus, Rutgers University, April 13–14, 2012
- *An Intrinsically Parallel Finite Element Method*, Finite Element Circus, University of Delaware, April 24–25, 2009
- *Interior Penalty Methods with Weak Over-Penalization*, Finite Element Circus, Cornell University, October 19–20, 2007
- *Multigrid Algorithms for C^0 Interior Penalty Methods for Fourth Order Problems*, Twelfth Copper Mountain Conference on Multigrid Methods, Copper Mountain, Colorado, April 3–8, 2005
- *Multigrid Algorithms for C^0 Interior Penalty Methods*, Finite Element Circus, University of Pittsburgh, April 16–17, 2004
- *Discontinuous Versions of Some Classical Inequalities*, Scientific Computing Seminar, University of South Carolina, February 18, 2004
- *Discontinuous Versions of Some Classical Inequalities*, Finite Element Circus, Cornell University, November 7–8, 2003
- *Discontinuous Versions of Some Classical Inequalities*, Numerical PDE Seminar, University of South Carolina, April 26, 2002
- *An Additive Theory for Multigrid V-cycle Algorithms*, Tenth Copper Mountain Conference on Multigrid Methods, Copper Mountain, CO, April 1–6, 2001
- *An Additive Convergence Theory for the Multigrid V-Cycle Algorithm*, Finite Element Circus, University of Texas at Austin, February 25–26, 2000

- *Neumann-Neumann Preconditioners*, Numerical PDE Seminar, University of South Carolina, September 14, 1999
- *Neumann-Neumann Preconditioners*, Numerical PDE Seminar, University of South Carolina, September 7, 1999
- *Lower Bounds for Nonoverlapping Domain Decomposition Methods*, Ninth Copper Mountain Conference on Multigrid Methods, Copper Mountain, CO, April 12–16, 1999
- *Lower Bounds in Domain Decomposition*, Applied Mathematics Seminar, University of South Carolina, April 14, 1998
- *Lower Bounds for Two-Level Additive Schwarz Preconditioners with Small Overlap*, Fifth Copper Mountain Conference on Iterative Methods, Copper Mountain, CO, March 30–April 3, 1998
- *Lower Bounds for Two-Level Additive Schwarz Preconditioners with Small Overlap*, Finite Element Circus, University of Colorado at Denver, March 27–28, 1998
- *Multigrid Methods for Stress Intensity Factors and Singular Solutions*, Eighth Copper Mountain Conference on Multigrid Methods, Copper Mountain, CO, April 6–11, 1997
- *Overcoming Singularities by Multigrid*, Finite Element Circus, University of Tennessee at Knoxville, October 18–19, 1996
- *Overcoming Singularities by Multigrid: Multigrid Theory*, Applied Math Seminar, University of South Carolina, October 4, 1996
- *Convergence of Nonconforming or Nonnested Multigrid Methods without Full Elliptic Regularity*, Seventh Copper Mountain Conference on Multigrid Methods, Copper Mountain, Colorado, April 3–7, 1995
- *Preconditioning Complicated FEMs by Simple FEMs*, Finite Element Circus, The Pennsylvania State University, November 11–12, 1994
- *The Mixed Finite Element Method II*, PICS Seminar, University of South Carolina, May 4, 1994
- *The Mixed Finite Element Method I*, PICS (Partnership in Computational Science) Seminar, University of South Carolina, April 27, 1994
- *Two-level Additive Schwarz Preconditioners for Nonconforming Finite Elements*, Finite Element Circus, Cornell University, November 11–12, 1993
- *Two-level Additive Schwarz Preconditioners for Nonconforming Finite Elements*, Seventh International Conference on Domain Decomposition Methods, Penn State University, October 27–30, 1993
- *Multigrid Methods for Parameter Dependent Problems*, Sixth Copper Mountain Conference on Multigrid Methods, Copper Mountain, Colorado, April 4–9, 1993
- *A Nonconforming Mixed Multigrid Method for the Pure Traction Problem in Planar Linear Elasticity*, Finite Element Circus, U.S. Naval Academy, Annapolis, Maryland, March 27–28, 1992
- *Multigrid Methods for 2D Linear Elasticity*, Fifth Copper Mountain Conference on Multigrid Methods, Copper Mountain, Colorado, March 31–April 5, 1991

- *Linear Finite Elements for Linear Elasticity*, Workshop on Mathematics of Computation in Partial Differential Equations (Conference in honor of Jim Bramble's 60th Birthday), Cornell University, January 25-27, 1991
- *A Multigrid Algorithm for the Lowest Order Raviart-Thomas Mixed Triangular Finite Element Method*, Third European Conference on Multigrid Methods, Bonn, Germany, October 1-5, 1990
- *A Multigrid Algorithm for the Lowest Order Raviart-Thomas Mixed Triangular Finite Element Method*, Finite Element Circus, Cornell University, April 20-21, 1990
- *A Nonconforming Multigrid Method for the Stationary Stokes Equations*, Finite Element Circus, Purdue University, March 31 –April 1, 1989
- *Multigrid Methods for Finite Elements III*, Applied Mathematics Seminar, Syracuse University, December 7, 1988
- *Multigrid Methods for Finite Elements II*, Applied Mathematics Seminar, Syracuse University, November 30, 1988
- *Multigrid Methods for Finite Elements I*, Applied Mathematics Seminar, Syracuse University, November 18, 1988
- *Multigrid Methods for Nonconforming Finite Elements*, Finite Element Circus, University of Maryland at College Park, May 6–7, 1988
- *Multigrid Techniques for Nonconforming Finite Element Methods*, Three Rivers Applied Math Colloquium, Pittsburgh, Pennsylvania, April 9–10, 1988

Other Conferences and Workshops Attended

- Numerical Solution of PDE Eigenvalue Problems, Oberwolfach, Germany, November 17–23, 2013
- Finite Element Circus, University of Delaware, October 18–19, 2013
- Finite Element Circus and Finite Element Rodeo, Louisiana State University, March 8–9, 2013
- Joint Mathematics Meeting, San Diego, January 9–12, 2013
- Finite Element Circus, University of Pittsburgh, October 19–20, 2012
- Finite Element Rodeo, Rice University, Houston, March 2–3, 2012
- Theory and Applications of Discontinuous Galerkin Methods, Oberwolfach, Germany, February 20–24, 2012
- Joint Mathematics Meeting, Boston, January 4–7, 2012
- Finite Element Circus, University of Connecticut, Avery Point, October 14–15, 2011
- Large-Scale Inverse Problems and Quantification of Uncertainty, IMA Workshop, Minneapolis, June 6–10, 2011
- Societally Relevant Computing, IMA Workshop, April 11–15, 2011
- Computing in Image Processing, Computer Graphics, Virtual Surgery and Sports, IMA Workshop, Minneapolis, March 7–11, 2011

- Finite Element Rodeo, Texas A&M University, College Station, February 25–26, 2011
- High Performance Computing and Emerging Architectures, IMA Workshop, Minneapolis, January 10–14, 2011
- Joint Mathematics Meetings, New Orleans, January 6–9, 2011
- Finite Element Circus, IMA, Minneapolis, November 5–6, 2010
- Computing with Uncertainty: Mathematical Modeling, Numerical Approximation and Large Scale Optimization of Complex Systems, IMA Workshop, Minneapolis, October 18–22, 2010
- SIAM Annual Meeting, Pittsburgh, July 12–16, 2010
- Finite Element Rodeo, Southern Methodist University, Dallas, March 5–6, 2010
- Metamaterials: applications, analysis and modeling, IPAM Workshop, Los Angeles, January 25–29, 2010
- Joint Mathematics Meetings, San Francisco, January 13–16, 2010
- Higher Order Geometric Evolution Equations: Theory and Applications from Microfluidics to Image Understanding, IMA Hot Topics Workshop, Minneapolis, March 23–26, 2009
- SIAM Conference on Computational Science and Engineering, Miami, Florida, March 2–6, 2009
- Finite Element Rodeo, University of Texas at Austin, February 27–28, 2009
- Nonstandard Finite Element Methods, Oberwolfach, Germany, August 10–16, 2008
- Joint Mathematics Meetings, Washington, DC, January 5–8, 2009
- Joint Mathematics Meetings, San Diego, January 6–9, 2008
- MATHEON Workshop on Computational Partial Differential Equations, Berlin, Germany June 6, 2007
- Fifth Singular Days, Luminy, France, April 23–27, 2007
- Joint Mathematics Meetings, New Orleans, January 5–8, 2007
- Festkolloquium zum 75. Geburtstag von Herrn Prof. em. Dr.-Ing. E.h. Dr. h.c. mult. Erwin Stein, Universität Hannover, Hannover, Germany, July 7, 2006
- European Finite Element Fair, ETH Zürich, Zürich, Switzerland, June 2–3, 2006
- Joint Mathematics Meetings, San Antonio, January 12–15, 2006
- Finite Element Circus, Rutgers University, October 21–22, 2005
- Finite Element Circus, University of Delaware, April 29–30, 2005
- SIAM-SEAS 2005, Charleston, March 25–26, 2005
- Gemischte und nicht-standard Finite-Elemente-Methoden mit Anwendungen, Oberwolfach, Germany, January 30 – February 5, 2005
- Joint Mathematics Meetings, Atlanta, January 5–8, 2005
- ECCOMAS 2004, Jyväskylä, Finland, July 24–28, 2004
- Fourth Singular Days, Pont-à-Mousson, France, June 7–9, 2004

- Joint Mathematics Meetings, Phoenix, January 6–10, 2004
- IMA Workshop: Probability and Partial Differential Equations in Modern Applied Mathematics, Minneapolis, July 21–August 1, 2003
- Joint Mathematics Meetings, Baltimore, January 17–19, 2003
- Joint Mathematics Meetings, San Diego, January 6–9, 2002
- Finite Element Circus, North Carolina State University, November 2–3, 2001
- Finite Element Circus, University of Delaware, March 30–31, 2001
- Mixed Finite Element Methods, Oberwolfach, Germany, February 4–8, 2001
- Joint Mathematics Meetings, New Orleans, January 10–13, 2001
- WAVES 2000, Santiago de Compostela, Spain, July 10–14, 2000
- Elastic Shells: Modeling, Analysis and Numerics, Mathematical Sciences Research Institute, Berkeley, April 17–28, 2000
- A-posteriori Error Estimation and Adaptive Approaches in the Finite Element Method, Mathematical Sciences Research Institute, Berkeley, California, April 3–14, 2000
- Homogenization and Effective Media Theories, Mathematical Sciences Research Institute, Berkeley, California, March 6–17, 2000
- Finite Element Circus, Cornell University, October 1–2, 1999
- Finite Element Circus, University of Maryland, College Park, November 6–7, 1998
- Conference on Numerical Analysis and Domain Decomposition in Honor of Olof B. Widlund’s 60th Birthday, Courant Institute, January 23–24, 1998
- Joint Mathematics Meeting, Baltimore, Maryland, January 7–10, 1998
- Finite Element Circus, Cornell University, October 10–11, 1997
- Grid Generation and Adaptive Algorithms, IMA Workshop, Institute for Mathematics and its Applications, University of Minnesota, April 28–May 2, 1997
- PDE Software, IMA Tutorial, Institute for Mathematics and its Applications, University of Minnesota, April 21–25, 1997
- Finite Element Circus, Courant Institute, New York, New York, April 18–19, 1997
- Computational Methods for the Incompressible Navier-Stokes Equations, IMA Short Course, Institute for Mathematics and its Applications, University of Minnesota, April 14–15, May 5–6, 1997
- Computational Radiology and Imaging, IMA Workshop, Institute for Mathematics and its Applications, University of Minnesota, March 17–21, 1997
- Eighth SIAM Conference on Parallel Processing for Scientific Computing, Minneapolis, Minnesota, March 14–17, 1997
- Basic Mathematics of Medical Imaging, IMA Tutorial, Institute for Mathematics and its Applications, University of Minnesota, March 10–11, 1997
- Molecular Structure: Dynamics, Geometry and Topology, A Workshop, Institute for Mathematics and its Applications, University of Minnesota, January 20–23, 1997

- The Second World Congress of Nonlinear Analysts, Athens, Greece, July 10-17, 1996
- Finite Element Circus, University of South Carolina, April 19–20, 1996
- Engineering Problems: Mathematical Formulations, Analysis, and Computational Treatment (Conference in honor of the 70th birthday of Ivo Babuška), University of Maryland, March 21–24, 1996
- Joint Mathematics Meeting, Orlando, Florida, January 10–13, 1996
- SIAM Annual Meeting, Charlotte, North Carolina, October 23–26, 1995
- Summer Research Program: Nonlinear Wave Phenomena, Institute for Advanced Study/ Park City Mathematics Institute (PCMI), Park City, Utah, July 9–29, 1995
- Finite Element Circus, Brookhaven National Laboratory, March 24–25, 1995
- Joint Mathematics Meeting, San Francisco, California, January 4–7, 1995
- Southeast Conference of Differential Equations, University of Tennessee at Knoxville, October 21–22, 1994
- Spectral Multi-Domain Methods Workshop, North Carolina State University, Raleigh, North Carolina, May 16–18, 1994
- Finite Element Circus, Rutgers University, April 29–30, 1994
- Joint Mathematics Meeting, Cincinnati, Ohio, January 10–13, 1994
- Mathematics of Computation 1943-1993, University of British Columbia, Vancouver, August 8–13, 1993
- IMA Workshop on Modeling, Mesh Generation and Adaptive Methods for Partial Differential Equations: Error Estimation and Adaptive Strategies, Institute for Mathematics and its Applications, Minneapolis, July 19–23, 1993
- Finite Element Circus, University of Maryland, April 16–17, 1993
- Finite Element Circus, University of Delaware, November 6–7, 1992
- World Congress of Nonlinear Analysts, Tampa, Florida, August 19-26, 1992
- Maple Summer Workshop, University of Waterloo, August 10–14, 1992
- Finite Element Circus, The Pennsylvania State University, November 8–9, 1991
- Fifth International Conference on Domain Decomposition Methods for Partial Differential Equations, Norfolk, Virginia, May 6–8, 1991
- Finite Element Circus, Rutgers University, October 12–13, 1990
- MODULEF Workshop, The Pennsylvania State University, July 16–20, 1990
- Finite Element Circus, UMBC, November 10–11, 1989
- Introductory and Advanced Supercomputing Workshops, Cornell National Supercomputer Facility, October 23–27, 1989
- The Future of Calculus, Ithaca College, April 15, 1989
- Finite Element Circus, The Pennsylvania State University, October 21–22, 1988
- AMS Centennial Conference, Providence, Rhode Island, August 8–12, 1988

- ACM Conference on the History of Scientific and Numeric Computation, Princeton, New Jersey, May 13–15, 1987
- Program on Scientific Computation, Institute for Mathematics and its Applications, August 17–December 15, 1986