

CURRICULUM VITAE

Jerry Lloyd Bona

Born on 5 February, 1945, in Little Rock, Arkansas
Citizen of the United States of America

Current Address

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Education

B.S. in Applied Mathematics and Computer Science from Washington University, Saint Louis (1966)
Ph.D. in Mathematics directed by Garret Birkhoff, from Harvard University, Cambridge (1971)

Principal Professional Appointments

Research Fellow under the guidance of T. Brooke Benjamin at the Fluid Mechanics Research Institute, University of Essex (1970-72)
L. E. Dickson Instructor in Mathematics, University of Chicago (1972-73)
Assistant Professor of Mathematics, University of Chicago (1973-76)
Associate Professor of Mathematics, University of Chicago (1976-79)
Professor of Mathematics, University of Chicago (1979-1986)
Professor of Mathematics, The Pennsylvania State University (1986-95) Acting Chairman (1990-91)
Raymond Sibley Professor of Mathematics, The Pennsylvania State University (1991-95) Chairman (1991-95)
CAM Professor in Mathematics and in the Texas Institute for Computational and Applied Mathematics, University of Texas at Austin (1995-2001)
Professor of Mathematics, Statistics & Computer Science, University of Illinois at Chicago (2002-) Chairman (2002-2007)

Concurrent and Other Professional Appointments of Several Weeks or More

- Research Assistant, National Aeronautics and Space Administration Electronics Research Center, Cambridge, (summer, 1968)
- Teaching Fellow in Applied Mathematics, Harvard University (fall semester 1969-70)
- Research Fellow, Department of Mathematics, Harvard University (summer 1970 and summer 1973)
- U.K. Science and Engineering Research Council Senior Visiting Fellow, Fluid Mechanics Research Institute, The University of Essex (fall 1973, summer and fall 1974, summer and fall 1975, April-May 1977, spring and summer 1978)
- Visiting Research Associate, Brookhaven National Laboratory (Summer 1976, Summer 1977)
- National Academy of Sciences exchange visitor to Poland (September 1977)
- Visiting Professor, Centro Brasileiro de Pesquisas Fisicas, Rio de Janeiro (March 1980)
- Visiting Professor, Mathematics Research Center, University of Wisconsin, Madison (1980-81 academic year and summer 1981)
- Visiting Professor, Department of Mathematics, University of Brasilia (January-February 1982)
- Professeur Invité, Université de Paris-Sud, Centre d'Orsay (October 1982, December-January 1986-87, May-June 1988, June-July 1989, May 1992, March and May 2001, June and November, 2003, September 2007)
- Visiting Professor, Laboratoriet for Anvendt Matematisk Fysik, Danmarks Tekniske Højskole (November 1982)
- Professeur Invité l'Institut National de la Recherche Scientifique-Océanologie, Université du Québec (1982-1997)
- Visiting Professor, Institute for Mathematics and its Applications, University of Minnesota (May-July 1985, Nov 1988, May-June 1990, May 1991, May 2001)
- Research Professor in the Applied Research Laboratory, The Pennsylvania State University (1986-95)
- Professeur Invité, Ecole Normale Supérieure de Cachan (December-January 1990-91, July 1991, CNRS Directeur de Recherche, March-May 1995, June-July, 2009)
- Invited Professor, Instituto de Matemática Pura e Aplicada, Rio de Janeiro (September-October 1991, November 1992, July 1993, August 1998, July 1999, February 2001, September 2001, June 2002, July-August 2006, November 2007, August 2008, August 2010)
- Invited Professor, Information Sciences Institute, Academia Sinica, Beijing (October-November 1991, October 1996, July 2010)
- Invited Professor, Mathematics Department, Xian Jiatong University, Xian (October 1991, July 2010)
- Professeur Invité, Université de Paris Nord, Laboratoire de Mathématiques, Villetaneuse (November 1993, June 1995, March and June 1999, June 2003, August 2005, June-July 2006, June-July 2010)
- Invited Professor, Mathematical Sciences Research Institute, Berkeley, California (January-February 1994)

Adjunct Professor, Penn State Department of Mathematics (1995-98)

Visiting Professor, Mathematics Institute, University of Oxford and Visiting Fellow of St. Catherine's College (January-February 1995)

Professeur Invité, Université Bordeaux, Mathématiques Appliquées (July 1995, September 1996, March 2000, June-July 2001, May-June 2003, July 2005, March 2006, March-May 2008, May-June 2011)

Visiting Professor, Institute of Computational and Applied Physics, Academia Sinica, Beijing (October 1996, August 1999)

Visiting Professor, Department of Applied Mathematics, Chongqing University and East Carolina Normal University, Shanghai (October 1996)

Visiting Professor, Schrödinger Institute, Vienna, Austria (November 1997, July 2011)

Invited Professor, Instituto de Matemática, Estatística e Computação Científica, UNICAMP, Campinas, Brasil (August 1998, May-June 2000, February 2001, June, 2004, September, 2005, May, 2006, CAPES lecturer, May-June 2007, September 2011)

Invited Professor, Tata Institute of Fundamental Research, Bangalore, India (May-June 1999, July-August, 2001, July-August, 2003, December, 2003, June-July, 2007, September, 2007)

Professeur Invité, Institut des Sciences de la Mer, Université du Québec (1999-2004)

Visiting Professor, Mathematisches Institute, Oberwolfach, Germany (February 2001, Nov. 2006)

Visiting Fellow, Isaac Newton Institute, Cambridge University (August 2001)

Visiting Professor, Department of Mathematics, Coimbra University, Portugal (March 2002)

Visiting Professor, Department of Mathematics, University of Vallilodid, Spain (March 2002)

Visiting Professor, Department of Mathematics, University of Lund, Lund, Sweden (April 2002)

Visiting Professor, Institute of Mathematical Sciences, Chinese University of Hong Kong (June-July 2002)

Visiting Professor, Mathematics Department, University of Athens, Athens, Greece (June 2003)

Visiting Fellow, Fields Institute, University of Toronto, Toronto, Canada (March and May 2004)

Visiting Adjunct Professor, Tata Institute for Fundamental Research, School of Mathematics, Bangalore (2004-2007)

Visiting Professor, Department of Mathematics, Hokkaido University, Sapporo, Japan (August, 2004)

Visiting Professor, National University of Taiwan, Taipei (March-April 2005, November-December 2009, May-June 2010)

Professeur Invité, Laboratoire d'Analyse et de Mathématiques Appliquées, Université Paris XII - Val de Marne, Creteil, France (June-July 2007, May-June 2010)

Visiting Professor and FAPESP lecturer, Instituto de Matematica e Estatística, Universidade de Sao Paulo, Brasil (January-February, 2011)

Professor Invité, Ecole Central de Paris (June-July, 2011)

Honors and Major Speaking Engagements

Tau Beta Pi, Washington University (1964)
National Science Foundation Graduate Fellow, Harvard University (1966-70)
Woodrow Wilson Fellow, Harvard University (1966-67)
Invited Speaker, International Congress of Mathematicians, Helsinki (1978)
Invited Speaker, Annual Meeting of the American Physical Society, Notre Dame (1979)
Invited Speaker, International Biennial Fluid Mechanics Meeting, Blazjewko, Poland (1979)
Invited Hour Lecturer, American Mathematical Society Meetings: Minneapolis (1984), Joint Meetings, San Francisco (1995)
Britton Lecturer, McMaster University (1986)
Invited Speaker, SIAM Annual Meeting, San Diego (1989)
W. M. Keck Award (1989)
Plenary Speaker, 19th Colóquio Brasileiro de Matemática, Rio de Janeiro (1993)
Porcelli Lecturer, Louisiana State University (1993)
Taft Lecturer, University of Cincinnati (1996)
Special Faculty Colloquia, Virginia Polytechnic Institute and State University (1996)
Principal series of lectures, Euroconference on Nonlinear Waves, Crete, Greece (1997), (2005)
Plenary speaker, Second International Conference on Nonlinear PDEs, Campinas, Brasil (1998)
Elected Fellow of the American Association for the Advancement of Science (1998)
Plenary speaker, Third World Congress of Nonlinear Analysis, Catania, Italy (2000)
Plenary speaker, Fifth International Conference on Mathematical and Numerical aspects of Propagation of Waves, Santiago de Compostela, Spain (2000)
First recipient of the CAM Students' Award for Excellence in Teaching, University of Texas (2000)
Distincion Honorifica, Universidad Nacional de Trujillo, Peru (2000)
Principal series of lectures at the Tata Institute for Fundamental Research, Bangalore, India (2001)
Plenary speaker, 50th Anniversary Conference of the Instituto Nacional do Matemática Pura e Aplicada, Rio de Janeiro, Brasil (2002)
Industrial Mathematics Institute Distinguished Lecturer, University of South Carolina, Columbia, South Carolina (2003)
Inaugural Fokas Distinguished Lecturer, Clarkson University, New York (2003)
Plenary speaker, Fifth Conference on Nonlinear Differential Equations, Campinas, Brasil (2004)
Keynote address, Fourth World Congress of Nonlinear Analysts, Orlando, Florida (2004)
Opening Lecture Series in the COE Special Year in Nonlinear Waves, Hokkaido University, Sapporo, Japan (2004)
Series of lectures on Nonlinear Waves, Sponsored by the London Mathematics Society, held at Reading University (2005)
Doctorat Honoris Causa, Université Bordeaux (2006)

Mathematics Association of America Invited Address, Joint Mathematics Meetings, New Orleans, (2007).

First Benajmin Lecturer, Oxford University (2007)

London Mathematical Society Visiting Lecturer (Cambridge, Bath and Reading) (2008)

Keynote address, 6th World Congress of Nonlinear Analysts, Orlando (2008)

Invited Hour Lecture, Illinois Section of the MAA annual meeting (2010)

Plenary Lecturer, International Workshop on Recent Advances in Computational Fluid Dynamics (series of three lectures), Guwahati, India (2010)

Invited Public Lecture, the University of North Carolina at Wilmington (2011)

First Blaylock Lecture in the Mathematical Sciences, University of Memphis (2011)

Major Committee and Board Memberships

Editorial Boards

Editorial board, *SIAM Journal on Mathematical Analysis* (1979–2004), served as Editor-in-Chief, (1987–1992)

Associate editor for applied mathematics of *SIMULATION* (1979–1990)

Editorial board, *Matemática Aplicada e Computacional* (1981–)

Editorial board, *Modélisation Mathématique et Analyse Numérique* (1985–2001)

Editorial board, *Differential and Integral Equations* (1988–)

Editorial board, *International J. of Mathematics and Mathematical Sciences* (1988–)

Editorial board, *Nonlinear World* and *Nonlinear Digest* (1992–)

Editorial board, *Electronic Journal of Differential Equations* (1993–)

Editorial Board, *Journal of Nonlinear Science* (1994–)

Editorial Board, *Discrete & Continuous Dynamical Systems, Series A* (1994–)

Editorial Board, *Advances in Differential Equations* (1994–)

Editorial Board, *Canadian Quarterly of Applied Mathematics* (1996–)

Editorial Board, *Communications on Applied Nonlinear Analysis* (1996–)

Editorial Board, *New York Journal of Mathematics* (1996–)

Editorial Board, *Communications in Applied Analysis* (1996–)

Editorial Board, *Dynamics of Continuous, Discrete and Impulsive Systems* (1996–)

Editorial Board, *Communications in Contemporary Mathematics* (1998–)

Editorial Board, *Computational Analysis & Applications* (1998–)

Editorial Board, *Nonlinear Analysis, Theory, Method & Applications, Series B: Applications* (1998–)

Editorial Board *Mathematical Sciences Research Journal* (1999–)

Editorial Board, *Discrete & Continuous Dynamical Systems, Series B* (2000–)

Editorial Board *Nonlinear Analysis, Theory, Methods & Applications Series A: Theory and Methods* (2001–) (co-Editor-in-Chief, 2008–)

Editorial Board *Electronic Journal of Mathematical and Physical Sciences* (2002–)

Editorial Board, *Chinese Journal of Computational Physics* (2002–)

Editorial Board, *International Journal of Pure and Applied Mathematics* (2002–)

Editorial Board, *Nagoya Mathematical Journal* (2003–)

Editorial Board, *Journal of Partial Differential Equations and Dynamical Systems* (2003–)
 Editorial Board, *Global Journal of Mathematical Sciences* (2004–)
 Editorial Board, *International Journal of Pure and Applied Mathematical Sciences* (2004–)
 Editorial Board, *Dynamics of Partial Differential Equations* (2004–)
 Associate Editor-in-Chief, *Selected Publications of Chinese Universities: Mathematics*
 (2004–)
 Editorial Board, *Centre de Recherches Mathématiques de l'Université de Montreal Mono-*
graph Series (2004–)
 Editorial Board, American Institute of Mathematics book series *Differential Equations and*
Dynamical Systems (2004–)
 Editorial Board, *Journal of Applied Mathematical Analysis* (2004–)
 Editorial Board, *Indian Journal of Mathematics and Mathematical Sciences* (2005–)
 Editorial Board, *Journal of Differential Equations and Nonlinear Mechanics* (2005–)
 Editorial Board, *Advances in Dynamical Systems and Applications* (2006–)
 Editorial Board, *International Journal of Applied Mathematics and Engineering Sciences*
 (2006–)
 Editorial Board, *International Journal of Applied Mathematics and Computational Science*
 (2006–)
 Editorial Board, *Pacific Journal of Applied Mathematics* (2006–)
 Editorial Board, *Journal of Applied Mathematics and Fluid Mechanics* (2008–)
 Editorial Board, *Journal of Applied Mathematics and Fluid Mechanics* (2010–)

Conference Committees

Organizer, Fourth Midwest *PDE* Seminar, Chicago, October 1978
 Organizer, Fifteenth Midwest *PDE* Seminar, Chicago, April 1984
 Organizing Committee for the Workshop *Dynamical Problems in Continuum Physics* held
 in Minneapolis in June, 1985
 Scientific Organizing Committee for the International Conference *Solitons, Instabilities,*
and Chaotic Processes in Fluid Dynamics held in Cetraro, Italy, June 1987
 Co-principal Organizer of the conference entitled *Advances in Computational Modelling*
and Numerical Analysis held at the University of Chicago, September 1987
 Organizing Committee of the *Three Rivers Applied Mathematics Colloquium* (1988-94)
 Co-organizer of the *SIAM* mini-symposium *Low Reynold's number, free-surface flows* held
 in Minneapolis at the *SIAM* annual meeting, July 1988
 Co-organizer of the Conference *Nonlinear Phenomena in Fluid Mechanics* held at Penn
 State University, April 1989
 Organizing Committee for *SIAM* Annual Meetings: Chicago 1990, Kansas City 1996
 Co-principal Organizer of the *NSF-CBMS* conference *Nonlinear Dispersive Wave Systems*
 held at the University of Central Florida, March 1991
 Organizing Committee for the *Third Potsdam - Fifth Kiev International Workshop on*
Nonlinear Processes in Physics held at Clarkson University, August 1991
 Co-organizer of the conference *Modern Ideas on Turbulence* held in Penn State, April 1991

Organizing Committee for the *MER* workshop entitled *Changing the Culture: Education and the Mathematics Research Community* held in Oakland, March 1992

Organizing Committee for the *7th international conference on Domain Decomposition* held at Penn State, October 1993

Organizing Committee for the *MSRI* workshop entitled *Waves in the Ocean* held at Berkeley, February 1994

Organizing Committee for the *MER* workshop entitled *Departmental Networks* held in Austin, May 1994

Co-organizer, of the Special Session entitled *Nonlinear Waves, 2nd World Congress of Nonlinear Analysis* held in Athens, Greece, July, 1996

Co-organizer of the Special Session *Mathematics and Education Reform* at the Annual Meeting of the *AMS*: San Diego, January, 1998; San Antonio, January 1999, Washington, January, 2000, San Francisco, January 2001, San Diego 2002, Baltimore 2003, Phoenix 2004, Atlanta, 2005.

Co-Chair of the Organizing Committee for the *AMS* conference entitled *Nonlinear PDE's, Dynamics and Continuum Physics* held at Mount Holyoke College in July, 1998

Co-Chair of the Organizing Committee of the *IMACS* International Conference *Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory*, held in Athens, Georgia in April, 1999

Organizing Committee for the *AMS-MER-SIAM* conference entitled *Professional Masters Degree in Mathematics* held in New York City in November, 1998

Co-organizer of the *ICIAM* Special Session *Nonlinear Waves*, held in Edinburgh, UK, July, 1999

Co-organizer of the *AMS* Special Session on *Theoretical, Computational and Experimental Aspects of Mechanics*, held in Austin, TX in October, 1999

Organizing Committee for the Second *AMS-MER-SIAM* conference on the *Professional Masters Degree in Mathematics* held in Tempe, AZ in November, 1999

Co-organizer of the Special Session on *Nonlinear Dispersive Waves* at the Fifth International Conference on Mathematical and Numerical aspects of Propagation of Waves, held in Santiago de Compostela, Spain, July, 2000

Organizing Committee for the *Second Latin American Workshop on PDE*, Universidad Nacional de Trujillo, Peru, November, 2000

Organizing Committee for the *AMS* conference entitled *The Lessons of Integrability*, held at Mount Holyoke College in June, 2001

Co-chair of the organizing committee of the *Second IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory*, held in Athens, Georgia in April, 2001

International Organizing Committee for *SOTA 2001* (Conference on Semigroups of Operators and Applications) held in Rio de Janeiro, Brasil in September, 2001.

Organizing Committee for the *AMS-MER-SIAM* Conference Series on *Excellence in Mathematics Education* held at Tempe, Arizona, December, 2001, St. Louis, May, 2002, Baton Rouge, November, 2002, Ithaca, February 2003, Fairbanks, September, 2003, Dubuque, March 2004.

Co-chair of the organizing committee of the *Third IMACS International Conference on*

Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, held in Athens, Georgia, April, 2003.

Global Scientific Committee, Conference on *Engineering Applications and Computational Algorithms*, Guelph, Canada, May, 2003.

Co-chair of the Organizing Committee for the Special Session on Nonlinear Waves at the *5th International Conference on Dynamical Systems and Differential Equations* held in Pomona, California in June, 2004.

Co-chair of the Organizing Committee for the Special Session on Nonlinear Wave Motion at the Regional Meeting of the AMS held at Northwestern University in October, 2004.

Organizing Committee, First SIAM Activity Group Conference on Nonlinear Waves and Coherent Structures, held in Orlando, Florida in October, 2004.

Co-chair of the organizing committee of the *Fourth IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory*, held in Athens, Georgia, April, 2005.

Co-chair of the organizing committee for a Euroconference on *Nonlinear Waves* held in Anogeia, Greece in July, 2005.

Scientific Organizing Committee for *6th International Conference on Dynamical Systems and Differential Equations* held in Poitiers, France in July, 2006.

Co-organizer of the special session on Nonlinear Dispersive Waves at the *6th International Conference on Dynamical Systems and Differential Equations* to be held in Poitiers, France in July, 2006.

Co-organizer of the special session on Tsunamis at the Annual Meeting of the American Association for the Advancement of Science in St. Louis, February, 2006.

Co-organizer of the 53rd Midwest PDE Conference held at UIC in April, 2006.

Co-organizer of the special session on Evolution Equations in Physics and Mechanics, American Mathematical Society sectional meeting, the University of Arkansas, November, 2006.

Co-Chair of the Organizing Committee of the Fifth *IMACS International Conference Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory*, to be held in Athens, Georgia in April, 2007

Co-organizer of the special session on Nonlinear Waves at the Fifth *IMACS International Conference Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory*, to be held in Athens, Georgia in April, 2007

Scientific Organizing Committee for *7th International Conference on Dynamical Systems and Differential Equations* to be held in Arlington, Texas, in May, 2008.

Scientific Organizing Committee for the 8th AIMS International Conference on Dynamical Systems, Differential Equations and Applications (2008-2010) The conference was held at Dresden University of Technology in Dresden, Germany in May of 2010.

Scientific Organizing Committee of *AMAT 2012*. (AMAT is a conference series in Applied Mathematics and Approximation Theory that runs once every two years. The next meeting is scheduled for Ankara, Turkey in May, 2012.)

Program Committee for the first Mathematical Congress of the Americas (2011-2012) The Congress is to be held in Guanajuato, Mexico on August, 2013.

University Service

Departmental Service

Chairman of the Committee on Applied Mathematics, The University of Chicago (1981-1986)
Policy Committee, Department of Mathematics, Penn State (1988-90, *ex officio* 1990-95)
Personnel Committee, Department of Mathematics, Penn State (*ex officio* 1990-95)
Acting Chairman, Department of Mathematics, Penn State (1990-91)
Chairman, Department of Mathematics, Penn State (1991-95)
Chairs Committee, Department of Mathematics, University of Texas at Austin (1995-1997)
Graduate Studies Committee, TICAM, University of Texas at Austin (1996-2001) Chairman (1998-99)
Advisory Committee, TICAM, University of Texas at Austin (1995-2001)
Chair Search Committee, TICAM, University of Texas at Austin (1996-2001)
Department of Mathematics Hiring Committee (1996-97)
Admissions and Fellowships Committee, TICAM, University of Texas at Austin (1997-2001)
Administrative Subcommittee of the Graduate Studies Committee, Department of Mathematics, University of Texas at Austin (1997-2001)
Curriculum Committee, TICAM, University of Texas at Austin (1997-2001) Applied Mathematics Subcommittee (1996-2001) Mathematical Modeling Subcommittee (1997-2001)
Area A Examination Committee, TICAM, University of Texas at Austin (1997-2001)
Chairman, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago (2002-2007)
Advisory Committee (*ex officio*), Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago (2002-) *ex officio* (2002-2007)
Mathematics Education Committee, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago (2007-)
Tenure track hiring committee, Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago (2007-2008, 2010-2011, 2011-2012)
Doctor of Arts subcommittee (2010-)

College & University Committees

College Council, The University of Chicago (1981-1984)
College Curriculum Committee, The University of Chicago (1984-1986)
Governing Committee, University of Chicago Physical Sciences Collegiate Division (1985-1986)
University Disciplinary Committee, University of Chicago, (1986)
College of Science Promotion and Tenure Committee for the Mathematical Sciences, Pennsylvania State University (1986-1987, 1989-90)
Physics Headship Review Committee, The Pennsylvania State University (1987)
Chairman of the Mathematics Headship Search Committee, The Pennsylvania State University (1988)
Member of the Penn State Task Force on Undergraduate Education (1989-91)

Headship search committee for Computer Science, The Pennsylvania State University (1990-91)

Chairman of the committee to select a department head in the Penn State Chemistry Department (1994)

Member of the committee to recommend Penn State Honorary Degrees (1994-95)

Co-Chairman of the University of Texas at Austin Project DISC Committee on New Initiatives (1995-1998)

University of Texas ORU (organized research unit) review committees; McDonald Observatory, Center for Nonlinear Dynamics (1995-96) Center for Relativity (1998-99), Center for Statistics (Chair of Committee, 1999-2000)

Chair, *ad hoc* Member of the review committee for the Vaughn Chair in Astronomy at the University of Texas at Austin (1998)

Chair, Faculty Board of the Center for Computational Finance in the Texas Institute for Computational and Applied Mathematics, University of Texas at Austin (1998-2002)

Executive Committee, College of Liberal Arts and Science, University of Illinois at Chicago (2002–)

Chairman of the Dean's Committee to review the Head of the Department of Physics at the University of Illinois at Chicago (2002-2003)

Fellow of the *CIC* Academic Leadership Program (2003-2004)

Elections Committee, College of Liberal Arts and Sciences, University of Illinois at Chicago (2007–2011)

Faculty Senate, University of Illinois at Chicago (2010–) subcommittee on Academic Freedom and Tenure, subcommittee on Research (2010–)

Professional Society Offices, Committees & Appointments

American Mathematical Society (*AMS* henceforth) Committee to select the Steele Prize Winner (1984-1987)

Society for Industrial and Applied Mathematics (*SIAM* henceforth) Committee of Managing Editors (1987-1992)

Mathematics Association of American (*MAA* henceforth) Committee on the Undergraduate Program in Mathematics (1987-91) Subcommittee on the Major in the Mathematical Sciences (1989-90), Subcommittee on Calculus Reform and the First Two Years (1989-91)

AMS Advisory Committee on a Newsletter on Collegiate Mathematics Education (1987-88)

American Association for the Advancement of Science (*AAAS* henceforth) Committee on Education (1988-1991)

SIAM Committee on Committees and Appointments (1988-1992)

AMS Board of Judges for the 1989 National Science and Engineering Fair held in Pittsburgh, May 8-12 (1989)

Chairman of the *AMS ad hoc* Committee on Applications of Mathematics (1989-92)

AMS Board of Judges for the 1990 National Science and Engineering Fair held in Tulsa, May 7-11, 1990
 Editorial Consultant to the *MAA* Committee on the Basic Library List (1990-1991)
 Chairman of the *AMS* Liaison Committee with the *AAAS* (1990-1992)
Ad hoc Committee to advise on a Remote Manuscript Tracking System for *SIAM* headquarters (1990)
AMS committee on education (1992-95) Chairman of the subcommittee on Graduate & Postdoctoral Education (1993-96)
SIAM Visiting Lecturer (1992-)
IMACS (International Association for Mathematics & Computers in Simulation) Technical Committee on Systems Dynamics and Nonlinear Science (1992-)
MAA representative to the *AAAS* Section Committee on Mathematics (1993-1996)
SIAM representative to the *AAAS* Section Committee on Mathematics (1994-1996)
 Chair Elect, Mathematics Section (Section A) of *AAAS* (1994-5), Chair, Section A (1995-6) Retiring Chair, Section A (1996-97)
MAA Program of Consultants (1994-)
AMS University Lecture Series Committee (1994-) Chairman (1999-2006)
AMS Nomination Committee (1995-1997, Chairman 1995-96)
MAA Task Force on Graduate Studies (1995-1999)
AAAS Council Member (1996-1997)
AMS Chair of the Committee on Committees (1998-2002)
AAAS Member-at-Large for Section A (Mathematics) (2002-2005)
AMS Mathematical Surveys and Monographs Editorial Committee (2003-2010)
MAA Departmental Liaison Committee (2003-)
SIAM Vice President of the Activity Group on Nonlinear Waves and Coherent Structures (2003-2005)
SIAM Nominating Committee for the *SIAM* Activity Group on Nonlinear Waves and Coherent Structures (2010-2011)
SIAM Elected Secretary of the *SIAM* Activity Group on Partial Differential Equations (2011-2013)
AMS Member of the American Mathematical Society Liaison Committee to the *AAAS* (2010-2012)
AMS Conant Prize Committee, (2010-2013) Chairman, (2012-2013)
SIAM Elected Secretary of the Activity Group on Partial Differential Equations (2011-2013)

Advisory Boards & Committees

Scientific Advisory Committee for Basic Research, Mathematical Sciences, U. S. Army Research Office (1979-1982)
 Review Committee for the Division of Mathematics and Computer Science, Argonne National Laboratory (1984-1990, Chairman of the Committee, 1985-1989)

National Science Foundation (*NSF* henceforth) Review Panel and Site Visit Team for Science and Technology Centers (1988)

NSF panel to review proposals in Undergraduate Curriculum Development in Mathematics: Calculus (1990)

Advisory Committee to the *NSF* Division of Mathematical Sciences (1990-1993) Chair of the committee (1990-92)

Public Information Resource Committee within the Joint Policy Board for Mathematics (1991-)

Panel to review *NATO* Post-Doctoral Fellowships (1991)

Member of the *ABET* team to evaluate the Korean Advanced Institute of Science & Technology (1992)

Chairman, Department of Energy Panel to review proposals in the Numerical Analysis of Ordinary and Partial Differential Equations (1993)

MIT Corporation Visiting Committee for the Department of Mathematics (1993-1997)

Co-director of the *MER* (Mathematicians and Education Reform) Network (1993-2004)

Visiting Committee for the University of Illinois at Chicago Department of Mathematics (1993)

Visiting Committee for *CUNY* Brooklyn College Department of Mathematics (1994)

MSEB (Mathematical Sciences Education Board) Forum on Post-secondary Education (1994-2000)

NSF Review Panel for proposals in Partial Differential Equations (1995)

International Mathematical Union Committee on the Atmosphere, Ocean and the Environment (1995-)

Chairman of the National Visiting Committee for the New York Collaborative for Excellence in Teacher Preparation in Mathematics, Science and Technology (1996-2000)

Visiting Committee for the University of North Carolina Mathematics Department (1996)

NSF Review Panel for the Institution-wide Reform Initiative proposals (1996)

Comité Scientifique de Laboratoire Mathématiques Appliquées de Bordeaux (ERS 123) (1996)

National Research Council Committee on Physics in a New Era (1997-99)

Research Networks Selection Committee of *NSEERC* (Natural Sciences and Engineering Research Council), Canada (1997-2000)

University Consultant for the Florida State University Mathematics Department (1997-1998)

Advisory Committee, Material Research Science and Engineering Center, The James Franck Institute, The University of Chicago (1997–2007)

Adjudication Committee for the position of Professor in Nonlinear Science in the Department of Mathematical Modeling, Technical University of Denmark, Lyngby (1998)

Expert Panel member for the proposal entitled “Mathematics for Information Technology and Complex Systems” (*MITACS*) in the Networks of Centres of Excellence Program, *NSEERC*, Canada (1998)

Dean’s Advisory Committee on the Mathematics Department, University of Arkansas, Fayetteville (1998)

NSF Knowledge and Distributed Intelligence panels (1999)

Evaluation Committee for the Department of Mathematics, Howard University (1999)
 Program Review Committee for the *N SERC* Networks of Centres of Excellence (2000)
N SERC Grant Selection Committee for Pure and Applied Mathematics B (2001–2005)
N SERC Site Visit Team (2002)
N SERC Equipment Requests Committee (2002 - 2005) (Chairman in 2003-2005)
 Invited Member of the *AMS* Council (2003)
 Evaluation Committee for the Department of Mathematics, University of Oklahoma (2004)
 Convener (Chair of the Program Committee) for the *International Centre for Mathematical Sciences*, Edinburgh, Scotland (2004–)
 Committee Consultif for the Centre de Recherches Mathématiques de l’Université de Montréal (2004–2008)
 Chair of the External Evaluation Committee for the Department of Mathematics of the University of Indiana and Purdue University at Indianapolis (2004–05)
 Chair of the External Evaluation Committee for the Department of Mathematics of the University of Tennessee at Knoxville (2005)
NSF Division of Mathematical Sciences Panel for proposals to the program *Mentoring through critical transitions* (2005)
NSF Division of Undergraduate Education Panel for proposals to the *Course, Curriculum and Laboratory Improvement program: Phase II* (2006)
NSF Division of Undergraduate Education Panel for proposals to the *Course, Curriculum and Laboratory Improvement program: Phase II* (2008)
 External Evaluator for the Department of Mathematics and Computer Science, University of Missouri at Saint Louis (2008)
N SERC Adjudicator (2010 and 2011)
 External Evaluator for the Department of Mathematics, Wayne State University, Detroit (2011)
 External Evaluator for the Department of Mathematical Sciences, Northeastern Illinois University, Chicago (2011)
 American Mathematical Society representative to the Organizing Committee for the year-long, world-wide program entitled ”Mathematics of Planet Earth 2013” (2011-2013)

Student Theses Supervised

D.K. Bose (Ph.D. in Mathematics, 1974, The University of Essex), (supervised jointly with T.B. Benjamin) Some mathematical aspects of steady waves in swirling flows.
 Eric Schechter (Ph.D. in Mathematics, 1978, The University of Chicago) Well-behaved evolutions and Trotter product formulas.
 J. Hoyos (Ph.D. in Mathematics, 1980, The University of Chicago), (supervised jointly with F.E. Browder) Differential equations of evolution and accretive operators on Finsler manifolds.
 Brad Lucier (Ph.D. in Mathematics, 1981, The University of Chicago) Dispersive approximations for hyperbolic conservation laws.

Douglas Cohen (Ph.D. in physics, 1983, The University of Chicago) A two-dimensional model for the interaction of shallow water waves with a changing bottom topography.

Manuel Santos (Ph.D. in economics, 1984, The University of Chicago), (supervised in collaboration with J. Scheinkman) Existence of equilibria for monetary economies.

John Albert (Ph.D. in Mathematics, 1984, The University of Chicago) On the stability of solitary waves and the decay of small-amplitude waves in nonlinear dispersive systems.

A.G. Malliaris (Ph.D. in Mathematics, 1986, The University of Chicago) Itô's calculus and economic analysis.

Michael Tom (Ph.D. in Mathematics, 1990, The Pennsylvania State University) Global well-posedness, local smoothing and dispersive blow-up of some nonlinear dispersive equations.

Michael Rose (Ph.D. in physics, 1990, The Pennsylvania State University) Long-wave models in stratified fluids.

Shubha Rajopadhye (Ph.D. in Mathematics, 1992, The Pennsylvania State University) Propagation of bores.

Juan Mario Restrepo (Ph.D. in physics, 1992, The Pennsylvania State University) Model for the formation and evolution of sand ridges on the continental shelf.

José Felipe Linares (Ph.D. in Mathematics, 1992, The Pennsylvania State University) (supervised jointly with Gustavo Ponce) On nonlinear dispersive equations.

Jenny Li (Ph.D. in Mathematics, 1993, Cornell University) (supervised jointly with Karl Shell) Optimal monetary policy.

Yong Lin (MA in Mathematics, 1994, The Pennsylvania State University) On the Boussinesq system of equations.

Laihan Luo (Ph.D. in Mathematics, 1994, The Pennsylvania State University) Initial- and boundary-value problems for some nonlinear partial differential equations.

Yi Li (Ph.D. in Mathematics, 1994, The Pennsylvania State University) Uniqueness and analyticity of solitary waves.

Beatrice Pelloni (Ph.D. in Mathematics, 1996, Yale University) (supervised as a consultant to Vassili Dougalis) Spectral methods for the numerical solution of nonlinear dispersive wave equations.

Hongqiu Chen (Ph.D. in Mathematics, 1998, The University of Texas at Austin) Solitary waves and other long-wave phenomena.

Joel Tropp (B.S. Honors in Mathematics, 1999, The University of Texas at Austin) Infinitesimals: history and application.

Walid Ben Youssef (Doctorate de Mathématiques, 2000, Université Bordeaux I) (supervised in collaboration with Thierry Colin) Systemes de Korteweg – de Vries: obtention asymptotique, probleme de Cauchy et étude numérique.

Gregory Richardson (Ph.D. in Mathematics, 2000, The University of Texas at Austin) (supervised jointly with Takis Konstantopoulos) Rare events and conditional limit theorems for a class of spectrally positive, heavy-tailed Lévy processes.

Henrick Kalisch (Ph.D. in Mathematics, 2001, The University of Texas at Austin) Models for internal waves in two-fluid systems.

Tara Rengarajan (M.Sc. in Mathematics, 2001, The University of Texas at Austin) Numerical investigation of a model for open market operations: stability of equilibrium

prices.

- Juan-ming Yuan (Ph.D. in Mathematics, 2001, The University of Texas at Austin) (supervised jointly with Todd Arbogast) Studies in recurrence and singularity formation in nonlinear dispersive wave equations.
- Katherine Socha (Ph.D. in Mathematics, 2002, The University of Texas at Austin) Modal analysis of long-wave equations. Mahaela Pal (Ph.D. in Mathematics, 2003, The University of Texas at Austin) (supervised jointly with Chris Brislawn) Theory of principal component filter banks with application to multicomponent imagery.
- Denis Gaidishev (Ph.D. in Physics, 2003, The University of Texas at Austin) (supervised jointly with Hans Koch) Renormalization of isoenergetically Hamiltonian flows, and instability of solitons in shear hydrodynamic flows.
- Nghiem Nguyen (Ph.D. in Mathematics, 2004, The University of Illinois at Chicago) Stability theory of solitary waves. (supervised jointly with John Albert)
- Hassan Fathallah-Shaykh (Ph.D. Mathematics, 2007, The University of Illinois at Chicago) Modeling and local filtering of noise embedded in genome-scale microarray datasets.
- Luisette Hernandez-Medina (Ph.D. Mathematics, 2011, The University of Illinois at Chicago) Benjamin-Bona-Mahony equation on finite trees.
- Dean Leonardi (Ph.D. Mathematics, 2011, The University of Illinois at Chicago) Internal and surface waves in a two-fluid system.
- Sanja Pantic (Ph.D. Mathematics, 2012, The University of Illinois at Chicago) Study of the solitary-wave solutions of the extended BBM-equation.

Post-doctoral Associates

- Peter Olver (L.E. Dickson Instructor, University of Chicago, 1976-78)
- Charles Amick (L.E. Dickson Instructor, University of Chicago, 1979-1981)
- Spencer Bowman (L.E. Dickson Instructor, University of Chicago, 1985-87)
- Frédéric Abergel (*NSF*-supported post-doctoral fellow, Penn State, 1987-89)
- Simon Tavener (*NSF*-supported post-doctoral fellow, Penn State, 1987-89)
- Daniel Dix (*NSF*-supported post-doctoral fellow, Penn State, 1989-91)
- Marcia Scíalom (*CNPq*, Brasil, sponsored post-doctoral fellow, Penn State, 1989-91 and 1994, University of Texas 1996, *FAPESP*, Brasil, sponsored scholar, University of Illinois at Chicago, 2003-2004)
- Min Chen (Mathematics Department post-doctoral fellow, Penn State, 1991-94)
- Keith Promislow (*NSF*-supported post-doctoral fellow, Penn State, 1991-95)
- Jenny Li (Mathematics Department post-doctoral fellow, Penn State, 1993-97)
- Yue Liu (Mathematics Department R.H. Bing Post-Doctoral Fellow, University of Texas, 1995-7)
- Steven Levandosky (Mathematics Department Instructor, University of Texas, 1997-1999)
- Jiahong Wu (Mathematics Department R.H. Bing Post-Doctoral Fellow, University of Texas, 1997-2000)

Jacques Bailly (Mathematics Department Instructor, University of Texas, 1999-2000)
Ioana Moise (Mathematics Department Instructor, University of Texas, 1999-2001)
Zoran Grujić (Mathematics Department Instructor, University of Texas, 1999-2001)
Vladimir Varlamov (Mathematics Department visiting Associate Professor, University of Texas, 2000–2002)
Jaime Angulo Pava (*CNPq*, Brasil, sponsored Visiting Scholar, University of Texas, and University of Illinois at Chicago, 2001–2002)
Claudia Valls (Mathematics, Statistics and Computer Science Department Visiting Scholar, the University of Illinois at Chicago, 2002–2003)
Borys Alvarez Samaniego, (*FAPESP*-sponsored, Brasil, Visiting Scholar, Mathematics, Statistics and Computer Science Department, University of Illinois at Chicago, 2004)
Chun-Hsiung Hsia (Mathematics, Statistics & Computer Science Department Research Assistant Professor, University of Illinois at Chicago, 2006-2008)
Gleb Doronin, (*CAPE*-sponsored, Visiting Scholar, Department of Mathematics, Statistics & Computer Science, University of Illinois at Chicago, 2007-2008)
Benjamin Akers (Mathematics, Statistics and Computer Science Department Research Assistant Professor, University of Illinois at Chicago, 2008-2011) (Joint with David Nicholls)