December, 2018

Curriculum Vitae

1. Name   **John Mallet-Paret**

        Date and Place of Birth

           February 15, 1952
           Montreal, Quebec, Canada
           U.S. Citizen

      Position George I. Chase Professor of the Physical Sciences

        Academic Department

           Division of Applied Mathematics
           Brown University
           Providence, RI 02912

2. Home Address

           84 Blaisdell Avenue
           Pawtucket, RI 02860

3. Education

           1971, B.Sc., University of Alberta, Canada
           1974, Ph.D., University of Minnesota

        Doctoral Thesis: Generic Properties of Fixed Points and Periodic
                             Orbits of Retarded Functional Differential Equations

        Research Interests

           Dynamical systems; differential-delay, lattice, and
           reaction-diffusion equations; singular perturbations;
           pattern formation; bifurcation theory.

4. Professional Appointments

           Sept. 1983–present   Professor
                                   Division of Applied Mathematics
                                   Brown University

           April, 2006   Ordway Visiting Professor
                                   School of Mathematics
                                   University of Minnesota

February, 2001	Ordway Visiting Professor School of Mathematics University of Minnesota
Fall, 2000 (two months)	Kloosterman Chaired Professor Department of Mathematics Leiden University, Netherlands
Jan. 1993–June 1993	Visiting Professor School of Mathematics Georgia Institute of Technology
Jan. 1989–June 1989	Visiting Professor School of Mathematics Georgia Institute of technology
Sept. 1981–Aug. 1983	Visiting Professor Department of Mathematics Michigan State University
Sept. 1978–July 1981	Associate Professor Division of Applied Mathematics Brown University
Sept. 1975–July 1978	Assistant Professor Division of Applied Mathematics Brown University
Aug. 1974–July 1975	Assistant Professor (Research) Division of Applied Mathematics Brown University
Sept. 1971–June 1974	Graduate Student School of Mathematics University of Minnesota
Sept. 1968–May 1971	Undergraduate Student University of Alberta Edmonton, Canada

5b. Chapters in Books

Hopf bifurcation and the method of averaging, (with S.-N. Chow), Chap. 4C of The Hopf Bifurcation, by J. Marsden and M. McCracken, *Applied Math. Sciences*, Vol. 19, Springer–Verlag, New York, 1976.

5c. Refereed Publications

Generic properties of retarded functional differential equations, *Bull. Amer. Math. Soc.* **81** (1975), 750–752.

Generic periodic solutions of functional differential equations, *Jour. Diff. Eq.* **25** (1977), 163–183.

Negatively invariant sets of compact maps and an extension of a theorem of Cartwright, *Jour. Diff. Eq.* **22** (1976) 331–348.

Applications of generic bifurcation, I, (with S.-N. Chow and J.K. Hale), *Arch. Rat. Mech. Anal.* **59** (1975), 159–188.

Applications of generic bifurcation, II, (with S.-N. Chow and J.K. Hale), *Arch. Rat. Mech. Anal.* **62** (1976), 209–235.

Integral averaging and bifurcation, (with S.-N. Chow), *Jour. Diff. Eq.* **26** (1977), 112–159.

The Fuller index and global bifurcation, (with S.-N. Chow), *Jour. Diff. Eq.* **28** (1978), 66–85.

Buckling of cylindrical shells with small curvature, *Quart. Appl. Math.* **35** (1977), 383–400.

Finding zeros of maps: Homology methods that are constructive with probability one, (with S.-N. Chow and J.A. Yorke), *Math. Comp.* **32** (1978), 887–899.

Global Hopf Bifurcation from a Multiple Eigenvalue (with S.-N. Chow and J.A. Yorke), *J. Nonlinear Anal.* **2** (1978), 753–763.

A homotopy method for locating all zeros of a system of polynomials (with S.-N. Chow and J.A. Yorke) Functional differential equations and approximation of fixed points, Springer–Verlag Lecture Notes in Mathematics, Vol. 730 (1979), pp. 77–88.

Generic unfoldings and normal forms of some singularities arising in the obstacle problem, *Duke Math. Jour.* **46** (1979), 645–683.

The parametrized obstacle problem (with S.-N. Chow), *J. Nonlinear Anal.* **4** (1980), 73–91.

Generic bifurcation in the obstacle problem, *Quart. Appl. Math.* (1980), 355-387.

An example of bifurcation to homoclinic orbits (with S.-N. Chow and J.K. Hale), *J. Differential Equations* **37** (1980), 351–373.

Snakes: oriented families of periodic orbits, their sources, sinks and continuation (with J.A. Yorke), *J. Differential Equations* **43** (1982), 419–450.

Families of periodic orbits: local continuability does to imply global continuability (with K.T. Alligood and J.A. Yorke), *J. Differential Geometry* **16** (1981), 483–492.

A periodic orbit index which is a bifurcation invariant (with S.-N. Chow and J.A. Yorke), Geometric Dynamics, Springer–Verlag Lecture Notes in Mathematics, Vol. 1007 (1983), 109–131.

An index for the global continuation of relatively isolated sets of periodic orbits (with K.T. Alligood and J.A. Yorke), Geometric Dynamics, Springer–Verlag Lecture Notes in Mathematics, Vol. 1007 (1983), 1–21.

Regularity results for real analytic homotopies (with T.Y. Li and J.A. Yorke), *Numerische Mathematik*, **46** (1985), 43–50.

The Lyapunov dimension of a nowhere differentiable attracting torus (with J.A. Kaplan and J.A. Yorke), *Ergodic Theory and Dynamical Systems* **4** (1984), 261–281.

Morse decompositions and global continuation of periodic solutions of singularly perturbed delay equations, in Systems of Nonlinear Partial Differential Equations (ed. by J.M. Ball), pp. 351–365, D. Reidel, Dordrecht, 1983.

Singularly perturbed delay-differential equations (with S.-N. Chow) in Coupled Nonlinear Oscillators (ed. by J. Chandra and A.C. Scott), North Holland Math. Studies **80** (1983), 7–12.

Stable transition layers in a semilinear boundary value problem (with S.B. Angenent and L. A. Peletier), *J. Differential Equations* **67** (1987), 212–242.

Stability, multiplicity and global continuation of symmetric periodic solutions of a nonlinear Volterra integral equation (with S.-N. Chow and O. Diekmann), *Jap. Jour. Appl. Math.* **2** (1985), 433–469.

Global continuation and asymptotic behavior for periodic solutions of a differential–delay equation (with R.D. Nussbaum), *Ann. Mat. Pura ed Applicata* **145** (1986), 33–128.

A bifurcation gap for a singularly perturbed delay equation (with R. D. Nussbaum), in Chaotic Dynamics and Fractals (ed. by M.F. Barnsley and S.G. Demko), pp. 263–286, Academic Press, 1986.

Hopf bifurcation and symmetry: traveling and standing waves on the circle (with S. van Gils), *Proc. Roy. Soc. Edinburgh* **104A** (1986), 279–307.

Switchings of optimal controls and the equation $y^{(4)} + |y|^\alpha$ sign $y = 0, 0 < \alpha < 1$ with P. Brunovsky), *Casopis pro Pestivani Matematiky* **110** (1985), 302–313.

Lorenz–like chaos in a partial differential equation for a heated fluid loop (with J.A. Yorke and E.D. Yorke), *Physica* **24D** (1987), 279–291.

Morse decompositions for delay–differential equations, *J. Differential Equations* **72** (1988) 270–315.

The principle of spatial averaging and inertial manifolds for reaction–diffusion equations (with G.R. Sell), in Nonlinear Semigroups, Partial Differential Equations and Attractors, Springer–Verlag Lecture Notes in Mathematics, Vol. 1248 (1987), 94–107.

Inertial manifolds for reaction–diffusion equations in higher space dimensions (with G.R. Sell), *Jour. Amer. Math. Soc.* **1** (1988), 805–866.

Transition layers for singularly perturbed delay differential equations with monotone nonlinearities (with S.-N. Chow and X.-B. Lin), *Jour. Dyn. Diff. Eq.* **1** (1989), 3–43.

Connections between Morse sets for delay–differential equations (with B. Fiedler), *Jour. Reine Ang. Mat.* **397** (1989), 23–41.

The Poincare–Bendixson theorem for scalar reaction diffusion equations (with B. Fiedler), *Arch. Rat. Mech. Anal.* **107** (1989), 325–345.

The Poincare–Bendixson theorem for monotone cyclic feedback systems (with H.L. Smith), *J. Dyn. Diff. Eq.* **2** (1990), 367–421.

A differential–delay equation arising in optics and physiology (with R.D. Nussbaum), *SIAM Jour. Math. Anal.* **20** (1989), 249–292.

Multiple transition layers in a singularly perturbed differential–delay equation (with R.D. Nussbaum), *Proc. Roy. Soc. Edinburgh* **123A** (1993), 1119–1134.

Stable periodic solutions for the hypercycle system (with J. Hofbauer and H. L. Smith), *J. Dyn. Diff. Eq.* **3** (1991), 423–436.

Ponies on a merry-go-round in large arrays of Josephson junctions (with D. G. Aronson and M. Golubitsky), *Nonlinearity* **4** (1991), 903–910.

Floquet theory for parabolic differential equations: (with S.-N. Chow and K. Lu), *J. Differential Equations* **109** (1994), 147–200.

Boundary layer phenomena for differential delay equations with state dependent time lags, I (with R. D. Nussbaum), *Arch. Rat. Mech. Anal.* **120** (1992), 99–146.

Obstructions to the existence of normally hyperbolic inertial manifolds (with G. R. Sell and Z. Shao), *Indiana Univ. Math. J.* **42** (1993), 1027–1055.

Periodic solutions for functional differential equations with multiple state-dependent time lags (with R. D. Nussbaum and P. Paraskevopoulos), *Top. Meth. Nonlin. Anal.* **3** (1994), 101–162.

Boundary layer phenomena for differential delay equations with state dependent time lags, II (with R. D. Nussbaum), *J. Reine Angew. Math.* **477** (1996), 129–197.

Floquet bundles for scalar parabolic equations (with S.-N. Chow and K. Lu), *Arch. Rat. Mech. Anal.*, **129** (1995), 245–304.

Pattern formation and spatial chaos in lattice dynamical systems, I, (with S.-N. Chow) *IEEE Trans. Circuits Syst.* **42** (1995), 746–751.

Pattern formation and spatial chaos in lattice dynamical systems, II, (with S.-N. Chow) *IEEE Trans. Circuits Syst.* **42** (1995), 752–756.

Systems of differential delay equations: Floquet multipliers and discrete Lyapunov functions (with G.R. Sell), *J. Diff. Eq.* **125** (1996), 385–440.

The Poincaré–Bendixson theorem for monotone cyclic feedback systems with delay (with G.R. Sell), *J. Diff. Eq.,* **125** (1996), 441–489.

Stability and oscillation in nonlinear cyclic systems, in: *Differential Equations and Applications to Biology and Industry* (eds. M. Martelli, K. Cooke, E. Cumberbatch, B. Tang, and H. Thieme), World Scientific Publishers, Singapore, 1996, pp. 337–346.

Dynamics of lattice differential equations (with S.-N. Chow and E. Van Vleck), *Int. J. Bifurcation and Chaos* **6** (1996), pp. 1605–1621.

Pattern formation and spatial chaos in spatially discrete evolution equations (with S.-N. Chow and E. Van Vleck), *Random & Computational Dynamics* **4** (1996), 109–178.

Spatial patterns, spatial chaos, and traveling waves in lattice differential equations, in: *Stochastic and Spatial Structures of Dynamical Systems* (eds. S.J. van Strien and S.M. Verduyn Lunel), North-Holland, Amsterdam, 1996, pp. 105–129.

Recent progress in lattice dynamical systems (with S.-N. Chow), *Japanese Society for Industrial and Applied Mathematics*, accepted for publication.

Traveling waves in lattice dynamical systems, (with S.-N. Chow and W. Shen), *J. Diff. Eq.* **149** (1998), pp. 248–291.

Modeling reflex asymmetries with implicit delay differential equations (with F.M. Atay), *Bull. Math. Biol.* **60** (1998), pp. 999–1015.

Traveling wave solutions for systems of ODE's on a two-dimensional spatial lattice (with J. W. Cahn and E. Van Vleck), *SIAM J. Appl. Math.* **59** (1999), pp. 455–493.

The Fredholm alternative for functional differential equations of mixed type, *J. Dyn. Diff. Eq.* **11** (1999), pp. 1–47.

The global structure of traveling waves in spatially discrete systems, *J. Dyn. Diff. Eq.* **11** (1999), pp. 49–127.

Crystallographic pinning: direction dependent pinning in lattice differential equations, *J. Diff. Eq.*, to appear (91 pages).

Exponential dichotomies and Wiener-Hopf factorizations for mixed-type functional differential equations via holomorphic factorization (with S. Verduyn Lunel), *J. Diff. Eq.*, to appear (81 pages).

Eigenvalues for a class of homogeneous cone maps arising from max-plus operators (with R.D. Nussbaum), *Disc. Conts. Dyn. Syst.* **8** (2002), pp. 519–562.

A basis theorem for a class of max-plus eigenproblems (with R.D. Nussbaum), *J. Diff. Eq.* **189** (2003), pp. 616–639.

Boundary layer phenomena for delay-differential equations with state dependent time lags: III (with R.D. Nussbaum), *J. Diff. Eq.* **189** (2003), pp. 640–692.

Theorems of Hartman-Grobman type for singularly perturbed vector fields (with S.-N. Chow and P. Brunovský), *Trans. Amer. Math. Soc.*, to appear (58 pages).

Traveling waves in spatially discrete systems, in: *Dynamical Systems, Cetraro, Italy, 2000* (eds. J.W. Macki and P. Zecca), Springer–Verlag Lecture Notes in Mathematics, Vol. 1822 (2003), pp. 231–298.

Differential systems with feedback: time discretizations and Lyapunov functions (with G.R. Sell), *Disc. Conts. Dyn. Syst.* **15** (2003), pp. 659–698.

Asymptotic fixed point theory and the beer barrel theorem (with R.D. Nussbaum), *J. Fixed Point Theory Appl.* **4** (2008), pp. 203–245.

Obituary of Jack K. Hale (with S.-N. Chow), *J. Dyn. Diff. Eq.* **22** (2010), pp. 73–78.

Universality of crystallographic pinning (with A. Hoffman), *J. Dyn. Diff. Eq.* **22** (2010), pp. 79–119.

Generalizing the Krein-Rutman theorem, measures of noncompactness and the fixed point index (with R.D. Nussbaum), *J. Fixed Point Theory Appl.* **7** (2010), pp. 103–143.

Inequivalent measures of noncompactness and the Radius of the Essential Spectrum (with R.D. Nussbaum), *Proc. Amer. Math. Soc.* **139** (2011), pp. 917–930.

Inequivalent measures of noncompactness (with R.D. Nussbaum), *Annali di Matematica* **190** (2011), pp. 453–488.

Superstability and rigorous asymptotics in singularly perturbed state-dependent delay differential equations (with R.D. Nussbaum), *J. Diff. Eq.* **250** (2011), pp. 4037–4084.

Stability of periodic solutions of state-dependent delay differential equations (with R.D. Nussbaum), *J. Diff. Eq.* **250** (2011), pp. 4085–4103.

Tensor products, positive linear operators, and delay-differential equations (with R.D. Nussbaum), *J. Dyn. Diff. Eq.* **25** (2013), pp. 843–905.

Analyticity and nonanalyticity of solutions of delay-differential equations (with R.D. Nussbaum), *SIAM J. Math. Anal.* **46** (2014), pp. 2468–2500.

Intricate structure of the analyticity set for solutions of a class of integral equations (with R.D. Nussbaum), *J. Dyn. Diff. Eq.*, accepted for publication.

Asymptotic homogenization for delay-differential equations and a question of analyticity, submitted for publication.

5g. Invited Lectures and Conferences since Sept. 1978

Nov. 1978 - Univ. of Colorado, Math. Dept. - Seminar talk

Nov. 1978 - Colorado State Univ., Math. Dept. - Seminar talk

Nov. 1978 - Univ. of New Mexico, Math. Dept. - Seminar talk

March 1979 - SUNY at Albany, Conference in Dynamical Systems, March 16–17, invited one hour address

June 1979 - Northwestern Univ. Conference in Dynamical Systems, June 17-21, 1979, invited one hour address, joint with J.A. Yorke

July 1979 - Univ. of Sao Paulo (Sao Carlos campus), Brazil, invited one hour address, Conference in Bifurcation Theory and Functional Differential Equations, July 2–7

July 1979 - 12th Brazilian Mathematics Colloquium Pocos de Caldas, Brazil, July 23–27, invited one hour address

June 27 – July 7, 1979, Summer School in Bifurcation Theory and Functional Differential Equations, Univ. of Sao Paulo, Sao Carlos, Brazil

Oct. 1979 - Boston University, Math. Dept. - Seminar talk

Oct. 1979 - Operations Research Society/Institute of Management Science Joint National Meeting, Milwaukee, Oct. 15–17, invited 20 minute address

Dec. 1979 - New York Academy of Sciences Conference on Nonlinear Dynamics, New York, NY, Dec. 17–21, one hour invited address, with J. A. Yorke.

Jan. 1980 - American Mathematical Society Annual Meeting, San Antonio, Texas, Jan. 3–8, invited talk, special session on differential dynamics

May 1980 - Michigan State University, Midwest Dynamical Systems Seminar, invited talk

July 1980 - University of Warwick, England Summer School on Turbulence and Nonlinear Dynamics, approx. one month

July 1980 - Heriot–Watt University, Scotland, seminar talk

Jan. 1981 - Pomona College, Claremont, CA, NSF Regional Conference on Global Topological Methods in Applied Mathematics, one hour invited talk

Jan. 1981 - University of Southern California, Los Angeles, CA, seminar talk

Feb. 1981 - Heriot–Watt University, Scotland - visitor, two weeks

Mar. 1981 - Oberwolfach, Germany, Conference in nonlinear functional analysis, nonlinear analysis and numerical analysis, invited talk

May 1981 - American Math. Society, Pittsburgh, PA, Special Session on Dynamic Bifurcation - invited talk

June 1981 - Sardinia, Italy, NATO Conference on Homotopy (continuation) methods, invited talk

July/Aug. - 1981 IMPA, Rio de Janeiro, International Symposium on Dynamical Systems, invited visitor, one month

May. 1982 - AMS Special session on Differential and Differential–delay Equations, Bryn Mawr College, PA, invited 20 minute address

Mar. 1982 - University of Michigan, math. Dept., two seminar talks

July 1982 - NATO Conf. on Differential Equations, Oxford England, invited 40 minute address

Oct. 1982 - AMS Special Session on Differential Equations, University of Maryland, invited 20 minute address

Dec. 1982 - Canadian Mathematical Society Winter Meeting, University of Toronto, invited one hour talk (the Coxeter–James Lecture).

Jan.–Mar. 1983 - Mathematisch Centrum, Amsterdam, the Netherlands - invited visitor for two months; series of weekly lectures given

Mar. 1983 - Conference on Chaos in Dynamical systems, University of Maryland, invited one hour talk

Feb. 1984 - Boston University, Math. Dept. - Seminar talk

Mar. 1984 - ARO Workshop on Chaos in Nonlinear Dynamical Systems, U.S. Army Research Office, invited talk

May/June 1984 - Institute for Mathematics and its Applications, University of Minnesota, invited visitor; several seminar talks given

July 1984 - Free University of Amsterdam, visitor for one week, seminar talk

July 1984 - Symposium on Bifurcation Theory and Applications, University of Durham, England, invited 45 minute talk

Oct. 1984 - University of Rhode Island, seminar talk

Jan. 1985 - AMS Special Session on Ordinary Differential Equations, Anaheim, CA, invited 20 minute address

Jan.-Mar. 1985 - Institute for Mathematics and Its Applications, University of Minnesota, invited visitor (three months)

Mar. 1985 - Conference on Chaotic Dynamics, Georgia Institute of Technology, Atlanta, GA, invited one hour address

April–May 1985 - University of Maryland, Mathematics Department, invited visitor (two months)

Feb. 1985 - Northwestern University, Mathematics Department, seminar talk

May 1985 - Naval Research Lab., Washington, DC, seminar talk

July 1985 - Institute for Mathematics and its Applications, University of Minnesota, visitor for one week, seminar talk

Aug. 1985 - Howard University Symposium on Partial Differential Equations, invited address

October 1985 - Society for Industrial and Applied Mathematics Meeting, Special Session on Functional Differential Equations, Tempe, Arizona, invited talk

Dec. 1985 - Rensselaer Polytechnic Institute, Mathematics Department, seminar talk

May 1986 - NATO Meeting on Infinite Dimensional Dynamical Systems, Lisbon, Portugal, invited speaker

May 1986 - Conference on Topological Methods in Analysis, Heidelberg, Germany, invited participant

July 1986 - Conference on Oscillation, Bifurcation, and Chaos, Toronto, Canada, invited plenary speaker

Oct. 1986 - NATO Advanced Research Workshop on Hamiltonian Systems, II Ciocco, Italy, invited participant

Oct. 1986 -FY 86 DARPA Annual Meeting, Applied and Computational Mathematics Program, report on current research sponsored by DARPA

Nov. 1986 - Minisymposium on Dynamical Systems and Partial Differential equations, Institute for Mathematics and Its Applications, University of Minnesota, invited talk

March 1987 - Boston University, Mathematics Department, seminar talk

March 1987 - Workshop on Nonlinear Partial Differential Equations, Brigham Young University, Provo, UT, invited talk

March 1987 - DARPA/URI Winter School, University of California at San Diego, series of three invited lectures

March 1987 - Miami University, Mathematics Department, seminar talk

April 1987 - AMS Special Session on Differential Equations, Newark, NJ, invited 20 minute talk

July 1987 - AMS Summer Research Conference on Infinite and Finite Dimensional Dynamical Systems, University of Colorado, Boulder, CO, invited talk

July 1987 - First International Conference on Industrial and Applied Mathematics, Paris, France, participant in minisymposium, and invited talk

July 1987 - Gregynog Symposium on Differential Equations, Gregynog, Wales, invited talk

August 1987 - Second Howard University Symposium on Partial Differential Equations, invited talk

August 1987 - Equadiff 87 Conference on Differential Equations, Xanthi, Greece, invited talk

Oct. 87 - FY 87 DARPA Annual Meeting, Applied and Computational Mathematics Program, report on current research sponsored by DARPA

January 1988 - AMS Special Session on Delay-Differential Equations, Atlanta, GA, invited 20 minute talk

February 1988 - Summer School on Differential Equations and Dynamical Systems, University of Campinas, Brazil, invited talk

March 1988 - Seminar talk, Mathematics Department, University of Indiana, Bloomington, IN

March 1988 - Seminar talk, Courant Institute of Mathematical Sciences, New York University

April 1988 - Conference on Differential Equations and Control Theory, Mathematics Department, University of Minnesota: invited speaker

April 1988 - Courant Institute, New York University: invited speaker (two weeks).

May 1988 - University of Tennessee: seminar talk.

October 1988 - Conference on Differential Equations, University of Stuttgart, Germany: invited speaker.

October 1988 - Rutgers University, New Brunswick, NJ invited visitor (one week); seminar talk.

November 1988 - University of Chicago: seminar talk.

Jan. - June 1989 - Georgia Institute of Technology: invited visitor; course on current research.

August 1989 - Differential Equations Conference, Beijing, China: invited speaker. (Conference cancelled in June).

July 1989 - US - Japan Conference on Differential Equations, Kyoto, Japan: invited speaker.

September 1989 - June 1990 - Special Year on Dynamical Systems, Institute for Mathematics and Applications, Univ. of Minnesota - invited participant for entire year, including invited talks at opening workshop (Sept.) and workshop on delay–differential equations (March).

January 1990 - International Conference on Differential Equations and Applications to Biology and Population Dynamics - Harvey Mudd College, Claremont California - invited participant.

May 1990 - SIAM Conference on Applications of Dynamical Systems - Orlando, Florida - invited speaker.

October 20–21, 1990 - American Mathematical Society Meeting, Amherst, MA: invited one hour talk.

October, 1990 - Rutgers University, New Brunswick, NJ, invited visitor (one week); two seminar talks.

October, 1990 - Courant Institute, NYU, New York, NY; seminar talk

December 1990 - January 1991 -Center for Dynamical Systems and Nonlinear Studies, Georgia Institute of Technology; invited visitor (4 weeks).

January 16–19, 1991 - AMS Special Session on Oscillation and Dynamics in Delay Equations, San Francisco, CA: invited talk.

March 24–30, 1991 - Conference on Invariant Manifolds and Applications. Oberwolfach, Germany: invited participant.

May 15–18, 1991 - International Conference on Theory and Applications of Differential Equations, University of Texas (Pan American), Edinburg, TX: invited speaker.

June 9–15, 1991 - Conference on Singular Perturbations. Oberwolfach, Germany: invited participant.

June, 1991 - Invited seminar talks at Universities of Munich, Stuttgart, and Augsburg, Germany.

June 24–29, 1991 - Fourth Czechoslovak Summer School on Dynamical Systems, Bratislava: invited series of lectures.

July, 1991 - Invited visitor, Comenius University, Bratislava, Czechoslovakia (one week).

June 30 - July 4, 1991 - USSR - Spain - Czechoslovak Symposium on Dynamical Systems, Kiev, USSR: invited participant.

July 23 - August 2, 1991 - Army High Performance Computing Research Center, Minneapolis: invited visitor.

October 21 - 25, 1991 - Rutgers University, New Brunswick, NJ, invited visitor: seminar talk.

October 30, l991 - Boston University; colloquium talk.

January 12–18, 1992 - Conference on Applied Dynamics and Bifurcation, Oberwolfach, Germany: invited talk.

March 22–30, 1992 - Georgia Tech/UAB Conference on Differential Equations and Mathematical Physics: invited hour address.

June 17–20, 1992 - Second Geoffry J. Butler Memorial Conference on Differential Equations and Mathematical Biology, University of Alberta, Edmonton, Canada: invited principal speaker.

June 21–27, 1992 - Army High Performance Computing Research Center, Minneapolis: invited visitor.

June 30 - July 17, 1992 - University of Stuttgart: invited visitor.

September, 1992 (one week) - York University, Canada: invited visitor.

October, 1992 (one month) - Brigham Young University: invited visitor.

November – December, 1992 (6 weeks) - Rutgers University; invited visitor.

January – June, 1993 - Georgia Institute of Technology; visiting professor.

March, 1993 - Fields Institute, University of Waterloo, Canada; invited visitor (one month) and, participant workshop.

April, 1993 - Auburn University; colloquium.

August 3–7, 1993 Differential Equations Conference, Ohio University, invited talk.

August 24–28, 1993, Equadiff Conference, Bratislava, Slovakia; invited plenary address

December 1–4, 1993 - Joint Meeting of American Mathematical society and Mexican Mathematical Society; invited talk.

February, 1994 - University of Houston; colloquium talk.

May, 1994 - Conference on Differential Equations, Crimea, Ukraine; invited hour talk.

June, 1994 - Conference of Differential Equations and Applications to Biology and to Industry, Harvey Mudd College, Pomona California; invited talk.

Aug. 1-6, 1994 - Workshop on Interface Motion in Materials (organizers: J. Cahn and P. Fife), Telluride, Colorado. Invited participant.

Oct. 24-Nov. 3, 1994 - Brigham Young University: invited visitor and seminar talk.

Nov. 14-18, 1994 - International Conference of Dynamical Systems, Taxco, Mexico. Invited one-hour talk.

Nov. 30-Dec. 2, 1994 - ARO Workshop on Nonlinear Dynamics in Science and Engineering, Georgia Institute of Technology, Atlanta, Georgia. Invited one-hour talk.

Dec. 5-9, 1994 - Rutgers University: invited visitor and seminar talk.

Jan. 26-28, 1995 - Colloquium on Dynamical Systems and Applications to Science, Royal Netherlands Academy of Arts and Sciences, Amsterdam, Netherlands. Invited one-hour talk.

March 20-24, 1995 - Conference on Differential Equations, Oberwolfach, Germany. Invited talk.

April 7-8, 1995 - Second Mississippi State Conference on Differential Equations and Computational Simulations, Miss. State University. Invited principal speaker (one-hour address).

May 21-24, 1995 - SIAM Dynamical Systems Conference, Snowbird, Utah. Two invited talks: (1) Minisymposium on space-time chaos, choherent structures, and intermittency in dynamical systems; (2) Time-dependent perturbations of dynamical systems.

June 1-5, 1995 - NSF-CBMS Conference on Approximation Dynamics and Numerical Analysis, University of Missouri, Columbia, Missouri. Invited one-hour talk.

June 8-16, 1995 - Summer School on Differential Equations, Marrakesh, Morocco. Invited course of six hour lectures.

June 16-20, 1995 - Second Marrakesh International Conference on Differential Equations, Marrakech, Morocco. Invited plenary talk.

June 24-28, 1995 - Workshop on Discretely Coupled Dynamical Systems, Universidade de Santiago de Compostela, Spain. Invited participant.

July 17-21, 1995 - Conference on Singular Perturbations in Differential Equations, Luming, France. Invited talk.

July 24-29, 1995 - Equadiff 95 Conference, Lisbon, Portugal. Member of Scientific committee and Invited plenary talk.

October 23-27, 1995, Workshop on Pattern Dynamics, Cambridge University, England. Invited talk.

January, 1996 - Georgia Institute of Technology - Seminar Talk.

May 29-Jun 1, 1996 - Conference on Dynamical Systems and Differential Equations, Springfield, Missouri. Hour plenary talk.

June 10-21, 1996 - National Tsing Hua University, Taipei, Taiwan. Invited visitor (two weeks), and series of lectures.

June, 1996 - Conference on Differential Equations, Chih-Tou, Taiwan. Invited lecture.

June 22-28, 1996 - US - China Conference on Differential Equations, Hangzhou, China. Member of scientific committee and invited plenary speaker.

July 1-5, 1996 - Tsing Hua University, Beijing, China. Invited visitor. Seminar talks at Tsing Hua University, Beijing University, and Fudan University (Shanghai).

October 28-November 1, 1996 - Workshop on Differential Equations and Nonlinear Analysis, Sao Carlos, Brazil. Invited talk.

January, 1997 - Seminar talk, Georgia Institute of Technology.

March 16-22, 1997 - Conference on ODE's and Reduction of High-Dimensional Systems, Oberwolfach, Germany. Invited talk.

April, 1997 - Conference on Future Directions in Mathematical Sciences, IMA, University of Minnesota. Plenary talk.

April, 1997 - University of Illinois, Urbana-Champaign. Two invited seminar talk (Depts. of Mathematics and Engineering).

April, 1997 - Rutgers University. Invited seminar talk and one week visit.

May, 1997 - Brigham Young University. Invited seminar talk and one week visit.

July 23-29, 1997 - International Conference on Differential Equations with Applications to Biology, Dalhousie University, Halifax, Canada. Invited plenary talk, and three hour minicourse.

July 2-6, 1997 - International Conference on Nonlinear Phenomena in Dynamical Systems, Whitehorse, Canada. Invited plenary talk.

September 24-October 16, 1997 - Lorentz Center, University of Leiden, Netherlands. Invited visitor and workshop participant (invited talk).

October, 1997 - University of Ghent, Belgium. Invited seminar talk.

October 17-19, 1997 - AMS Special Session on Dynamical Systems, Atlanta. Invited talk.

January 11-17, 1998 - Conference on Global and Geometric Theory of Delay Differential Equations, Oberwolfach, Germany - co-organizer with Roger Nussbaum and Hans-Otto Walther.

May 11-15, 1998 - Workshop on Pattern Formation in Continous and Coupled Systems, IMA, University of Minnesota. Invited participant.

June 17-27, 1998 - Conference on Lattice Dynamical Systems (June 25-27), Hsin-Chu, Taiwan. Invited plenary talk. Invited visitor (10 days) at Chiao Tung University, Hsin-Chu.

June 29-July 3, 1998 - Conference on Bifurcation Theory and its Numerical Analysis, Xi'an Jiaotong University, Xi'an, China. Invited plenary talk.

July 7-15, 1998 - University of Singapore. Invited visitor.

September 9-13, 1998 - Conference on Differential Equations and Dynamical Systems, Georgia Institute of Technology. Invited plenary talk.

September 26-28, 1998 - Conference on Waves and Continuation Methods in Biology and Related Areas, University of Pittsburgh. Invited talk.

November 23-28, 1998 - Conference on Dynamical Systems and Evolutionary Equations, Technical University of Lisbon. Invited plenary talk.

December, 1998 - University of Connecticut; colloquium talk.

March 14-20, 1999 - Conference on Differential Equations, Homoclinic and Heteroclinic Orbits, Oberwolfach, Germany. Invited participant.

May 11-15, 1999 - SIAM National Meeting, Atlanta. Minisymposium organizer and invited talk.

May 23-27, 1999 - SIAM Dynamical Systems Conference, Snowbird, Utah. Minisymposium organizer and invited talk.

July 19-21, 1999 - Workshop on Lattice Dynamical Systems, NIST, Gaithersburg, MD. Invited participant.

July 26-30, 1999 - Conference on Functional Differential Equations, Lisbon, Portugal. Invited plenary speaker.

August 1-7, 1999 - Equadiff Conference on Differential Equations, Berlin, Germany. Invited plenary speaker.

August 16-19, 1999 - Workshop on Methods in Nonlinear Analysis, Edmonton, Canada. Invited speaker.

January 3-7, 2000 - International Conference on Differential Equations and Applications, University of La Frontera, Temuco, Chile. Invited speaker.

June 19-26, 2000 - CIME Conference and Summer School, Cetraro, Italy. Invited series of lectures.

June 26-30, 2000 - Conference on Differential Equations and Dynamical Systems, Instituto Superior Técnico, Lisbon, Portugal. Invited speaker.

August 10-12, 2000 - SIAM Pacific Rim Conference on Dynamical Systems, Wailea, Hawaii. Invited plenary talk.

Fall, 2000 - Universities of Leiden, Utrecht, and Free University of Amsterdam. Invited talks.

December 10-16, 2000 - Conference on Global Invariant Manifolds in Dynamical Systems, Oberwolfach, Germany. Invited participant.

February, 2001 - Colloquium and several seminar talks at the University of Minnesota, as Ordway Visiting Professor.

Spring, 2001 - Seminar talk at Rutgers University, during two-month visit.

March 18-24, 2001 - Conference on Differential Equations, Oberwolfach, Germany. Invited participant.

June 27-29, 2001 - Workshop on Discretizations of Continuous Operators: Regular and Fractal Lattices. Invited hour talk.

October 14-18, 2001 - Conference on Non-compact Variational Problems and General Relativity, Rutgers University. Invited hour talk.

July 7-12, 2002 - Fifth Americas Conference on Differential Equations and Nonlinear Dynamics, University of Alberta, Canada. Invited plenary talk.

August 12-14, 2002 - Workshop on Computational Dynamics, IMA, University of Minnesota. Invited lecture.

September 9-21, 2002 - Autumn School on Delay Differential Equations: Theory and Applications, Marrakech, Morocco (co-sponsored by ICPAM, Nice, France). Invited series of lectures. (Attended 9/9 to 9/16).

September 18-20, 2002 - International Conference on Differential Equations and Dynamical Systems, Isik University, Istanbul, Turkey. Two invited plenary talks.

October 31-November 1, 2002 - "Markus at 80" Conference on Differential Equations, University of Minnesota. Invited talk.

July 22-26, 2003 - Equadiff 2003 (International Conference on Differential Equations), Hasselt, Belgium. Invited lecture.

December 14-20, 2003 - Conference on Structured Systems, Oberwolfach, Germany. Invited lecture.

September 15-17, 2004 - Workshop on Differential Equations and their Applications, Kadir Has University, Istanbul, Turkey. Two plenary lectures.

November 6-11, 2004 - Workshop on Functional Differential Equations, Banff International Research Station. Invited lecture.

December 2-4, 2004 - Workshop on Qualitative Mathematical Modeling in Gene Regulatory Networks, Mathematical Biology Institute, Ohio State University. Invited lecture.

January 10-19, 2005 - Sixth Americas Conference on Differential Equations and Nonlinear Analysis, Santiago, Chile - minicourse (series of lectures).

March 14, 2005 - McGill University, Montreal, Canada. Invited seminar talk.

July 4-8, 2005 - Conference on Dynamical Systems and Differential Equations, Luminy, France. Invited talk.

July 11-14, 2005 - Minisymposium on Max-Plus Algebras and Associated Applications, SIAM Conference on Control, New Orleans. Invited talk.

July 25-29, 2005 - Equadiff 11 Conference on Differential Equations and Numerical Analysis, Bratislava, Slovakia. Invited plenary talk; also invited talk in minisymposium on differential delay equations.

October 15-17, 2005 - 26th Midwest-Pacific Differential Equations Conference, University of Alberta, Canada. Invited plenary talk.

November 3, 2005 - Colloquium talk, Georgia Institute of Technology.

February 6-10, 2006 - Winter School on Dynamical Systems and Nonlinear Science, Oviedo, Spain. Minicourse on lattice dynamical systems (five lectures).

February 20-22, 2006 - ICMC Summer Meeting in Differential Equations, University of São Paulo, Brazil. Invited plenary lecture.

March 2-3, 2006 - DARPA Workshop on State-Dependent Delays in Regulatory Networks, DIMACS, Rutgers University. Invited talk.

July 10-14, 2006 - Summer School on Functional Differential Equations, Guangzhou, China. Minicourse (four lectures).

July 17-21, 2006 - Conference on Dynamical Systems and Differential Equations, Guangzhou, China. Invited plenary lecture.

July, 19-23, 2006 - Workshop on Dynamical Systems and Applications, Kyoto University. Three invited lectures. (This overlaps with Guangzhou conference; partial attendance at each.)

July, 24-28, 2006 - International Conference on Difference Equations and Applications, Kyoto, Japan. Invited plenary lecture.

August 1, 2006 - Seminar talk, University of Tokyo.

September, 2006 – February, 2006, to total four months - Visitor, Rutgers University, including seminar talk (Nonlinear Analysis Seminar) and Colloquium.

May 28-June 1, 2007 - SIAM Meeting on Dynamical Systems, Snowbird, Utah. Invited minisymposium talk.

June 4-8, 2007 - Congress on Nonlinear Dynamical Analysis, St. Petersburg, Russia. Invited lecture.

June 25-28, 2007 - Conference on the Qualitative Theory of Differential Equations, Bolyai Institute, University of Szeged, Hungary. Invited plenary lecture.

July 23-27, 2007 - International Conference on Difference Equations and Applications, Lisbon, Portugal. Invited plenary lecture.

April, 2007 (one month) - Ordway Visiting Professor, University of Minnesota, including seminar talk (Dynamical Systems Seminar) and Colloquium.

November 1-6, 2007 - Workshop on Recent Advances in Functional and Delay Differential Equations, Dalhousie University, Halifax, Canada. Invited talk.

January 28-February 1, 2008 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil. Invited plenary lecture.

September 24-28, 2008 - Conference on Infinite Dimensional Dynamical Systems, Fields Institute, Toronto, Canada. Speaker and co-organizer (with Jianhong Wu [York University, Toronto] and Yingfei Yi [Georgia Institute of Technology]).

December 14-20, 2008 - Conference on Dynamics of Patterns, Oberwolfach, Germany. Invited speaker.

May 30-June 5, 2009 - Mini-School and International Conference on Nonlinear and Stochastic Dynamics, Sichuan University, Chengdu, China. Three hour invited lecture in mini-school, and one hour plenary lecture in conference.

June 19-22, 2009 - International Conference on Asymptotic Analysis and Infinite-Dimensional Dynamical Systems, City University of Hong Kong. Invited talk.

October 12-16, 2009 - Workshop on Delay Differential Equations, Max Planck Institute, Dresden, Germany. Attended as co-organizer.

March, 2010 - Brigham Young University - invited seminar talk and one week visit.

June 7-11, 2010 - Workshop on Low-Dimensional Structures in Dynamical Systems, American Institute of Mathematics, Palo Alto, CA. Co-organizer (with Roger Nussbaum [Rutgers] and Hans-Otto Walter [Giessen, Germany]).

September-November, 2010 - Visitor, Rutgers University, including seminar talk (Nonlinear Analysis Seminar) and Colloquium.

December, 2010 - Georgia Institute of Technology - invited seminar talk and one week visit.

December, 2010 - Auburn University - invited colloquium talk.

May, 2011 - Sichuan University, Chengdu, China - invited seminar talk and two week visit.

June 28-July 1, 2011 - 9th Colloquium on the Qualitative Theory of Differential Equations, University of Szeged, Hungary. Invited plenary talk.

July 14-16, 2011 - ICIAM-2011 Workshop on Delay Differential Equations, University of British Columbia, Vancouver, Canada. Invited talk.

November, 2011 - George Mason University - invited seminar talk.

December, 2011 - Georgia Institute of Technology - invited seminar talk.

January 9-14, 2012 - IX Americas Conference on Differential Equations, Trujillo, Peru. Invited plenary talk.

June 4-8, 2012 - Workshop on Delay Equations, Cortona, Italy. Invited talk.

June 25-27, 2012 - Sixth International Conference on Recent Advances in Applied Dynamical Systems, Guangzhou, China. Invited talk.

July, 2012 - Zhejiang University, Hangzhou, China - invited seminar talk.

July, 2012 - Hangzhou Normal University, Hangzhou, China - invited seminar talk.

July, 2012 - Jilin University, Changchun, China - invited seminar talk.

October 22-26, 2012 - Workshop on Random Dynamical Systems, Institute for Mathematics and its Applications, University of Minnesota. Invited talk.

December 3-7, 2012 - Workshop on Lattice and Nonlocal Dynamical Systems and Applications, Institute for Mathematics and its Applications, University of Minnesota. Co-organizer (with Peter Bates [Michigan State University] and Wenxian Shen [Auburn University]).

December 16-22, 2012 - Conference on Dynamics of Patterns, Oberwolfach, Germany. Invited participant.

March 15, 2013 - Invited tutorial lectures (two) on delay-differential equations, in connection with International Conference on Dynamics of Differential Equations held March 16–20, Georgia Institute of Technology.

June 8-10, 2013 - Seventh International Conference on Recent Advances in Differential Equations, Linyi University, Linyi, China. Invited talk.

June, 2013 - University of Science and Technology of China, Hefei, China. Invited talk.

June, 2013 - Sichuan University, Chengdu, China. Invited talk and one week visit.

June, 2013 - Shanghai Jiao Tong University, Shanghai, China. Invited talk.

May, 2014 - Rutgers University - invited seminar talk.

February 2-4, 2015 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil. Invited plenary talk.

May 4-8 and May 18-22, 2015 - Fields Institute, Toronto, Canada. Coxeter Distinguished Lectures (three lectures) as part of a month long Thematic Program on Delay-Differential Equations.

May, 2015 - Sichuan University, Chengdu, China. Seminar talk.

June 1-4, 2015 - Ninth International Conference on Recent Advances in Applied Dynamical Systems, Guangzhou University, China. Invited plenary talk.

June, 2015 - Shanghai Jiao Tong University. Seminar talk.

July 1-4, 2015 - Tenth Colloquium on the Qualitative Theory of Differential Equations, Szeged, Hungary. Invited plenary talk.

February 1-3, 2016 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil. Invited plenary talk.

March 21-25, 2016 - Conference on Dynamics of Evolution Equations, International Center for Mathematical Research, Luminy, France. Invited plenary talk.

June 22-25, 2016 - Workshop on Dynamics and Differential Equations, Institute for Mathematics and its Applications, University of Minnesota. Invited plenary talk.

July 25-29, 2016 - Conference on Patterns of Dynamics, Free University of Berlin, Germany. Invited plenary talk.

February 6-8, 2017 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil. Invited plenary talk.

March 3, 2017 - Indiana University, colloquium talk.

May 29-June 2, 2017 - Workshop on Infinite Dimensional Dynamical Systems, Sichuan University, Chengdu, China. Invited talk.

June 13-15, 2017 - International Conference on Topological Nonlinear Analysis, Guangzhou University, Guangzhou, China. Invited plenary talk.

August 12-19, 2017 - XI America's Conference on Differential Equations and Nonlinear Analysis, University of Alberta, Edmonton, Canada. Invited plenary talk.

September 13-November 10, 2017 - Visitor at Rutgers University (as part of sabbatical). Seminar talk given.

November 20-December 15, 2017 - Visitor at University of Utrecht, Netherlands (as part of sabbatical). Seminar talk given.

February 5-7, 2018 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil. Invited plenary talk.

March 14-18, 2018 - Third International Conference on Dynamics of Differential Equations, Hiroshima University. Invited talk.

March 30, 2018 - University of South Florida, colloquium talk.

April 23, 2018 - University of Connecticut, colloquium talk.

Please note: Although I received several invitations to speak at international conferences in 2014 (São Carlos, Brazil; Guilin, China; Shanghai Jiao Tong University) I was unable to accept them as my ongoing U.S. Naturalization Procedure precluded international travel for a period.

Invited speaker at other national and international conferences which were declined.

Selected Future Invited Talks and Conferences

June, 2019 - Thirteenth International Conference on Recent Advances in Applied Dynamical Systems, Zhejian University, Hangzhou, China. Invited talk.

June, 2019 - 11th Colloquium on the Qualitative Theory of Differential Equations, University of Szeged, Hungary. Invited plenary talk.

5i. Conference Notes

Notes of Proceedings of Symposium on Differential–Delay and Functional Equations (Control and Stability), 6/26/72 – 7/7/72, University of Warwick, England.

Mixed-type functional differential equations, holomorphic factorization, and applications (with S.V Verduyn Lunel), Proceedings of Equadiff 2003, Hasselt, Belgium, pp. 73–89.

6. Research in Progress

Papers in Preparation

Traveling waves in lattice differential equations with spatial variations (with S.-N. Chow, K. Lu, and W. Shen).

Periodic solutions of differential equations with multiple state-dependent delays (with R.D. Nussbaum).

Analytic solutions of delay differential equations (with R.D. Nussbaum).

Additional

Continuing research in lattice dynamical systems (in part with S.-N. Chow, K. Lu, and W. Shen).

Continuing research in differential delay equations (in part with R.D. Nussbaum).

7. Service

Journal of Differential Equations

Editor-in-Chief (duties shared with Shui-Nee Chow, Adrian Constantin, and Wei-Ming Ni; over 350 manuscript per editor per year). Appointment since January, 2000.

Other Editorial Boards

Journal of Dynamics and Differential Equations

Ph.D. Students

1978 - Nicholas Alikakos (joint with Jack Hale)

1981 - Eric Takigawa

1983 - Ahmad Dizaji (Michigan State University)

1989 - Benjamin Regala

1990 - Jiangping Fan

1991 - Ying Huang

1993 - Panagiotis Paraskevopoulos

1994 - Fatihcan Atay

1997 - Hari Krishnan

2006 - Aaron Hoffman

Lefschetz Center for Dynamical Systems

Director of Lefschetz Center for Dynamical Systems (July, 2002 – June, 2006; July, 2007 – June, 2010; and July, 2014 – June, 2016).

VIGRE Program

Attended workshop on VIGRE funding, May 3–4, 2002, Reston, Virginia.

Co-coordinator (with P. Dupuis, C.-W. Shu, and Math Department faculty) of VIGRE Site Visit, December 11, 2002.

Departmental Offices and Committees

Associate Chair (July, 2005 – June, 2006; and July, 2011 – June, 2013).

Chair of Dynamical Systems Search Committee (Fall, 2007).

Colloquium Chair (September, 2008 – May, 2010).

Member of various departmental search committees, tenure committees, and review committees on regular basis.

Advising

Freshman advisor for six students, beginning September, 2018.

Conferences and Workshops Organized

Aug 15–19, 1988 - International Conference on "New Directions in Dynamical Systems", Brown University - member of organizing committee.

July 17–22, 1989 - US–Japan Conference on Differential Equations, Kyoto, Japan - member of US organizing committee.

March 19 – April 13, 1990 - Workshop on Mathematical Physiology and Delay-Differential Equations, Institute for Mathematics and Applications, University of Minnesota - member of organizing committee.

May 15–18, 1991 - International Conference on Theory and Applications of Differential Equations, University of Texas - Pan American - member of organizing committee.

October 1992 - Special Session on Differential Delay Equations, SIAM Meeting, Brigham Young University, Provo, Utah.

August, 1994 - International Conference on Functional Differential Equations and Applications, Moscow, Russia; member of Scientific Committee.

July 1995 - Equadiff 95, Lisbon, Portugal - member of Scientific Committee

June, 1996 - US - China Conference on Differential Equations, Hangzhou, China - member of Scientific Committee.

April, 1997 - Conference on Future Directions in Mathematical Sciences, IMA, University of Minnesota - member of Scientific Advisory Committee.

May, 1997 - SIAM Conference on Dynamical Systems, Snowbird, Utah - minisymposium organizer.

January, 1998 - Conference on Global and Geometric Theory of Delay Differential Equations, Oberwolfach, Germany - co-organizer with Roger Nussbaum and Hans-Otto Walther.

June/July, 1998 - Conference on Bifurcation Theory and its Numerical Analysis, Xi'an Jiaotong University, Xi'an, China - member of Scientific Committee.

May, 1999 - SIAM National Meeting, Atlanta - minisymposium organizer.

May, 1999 - SIAM Conference on Dynamical Systems, Snowbird, Utah - minisymposium organizer.

June, 1999 - Conference on Differential Equations and Applications, Sichuan University, Chengdu, China - member of Scientific Committee.

September, 2000 - Workshop on Topological Methods in Dynamical Systems, Leiden University, Netherlands. Co-organizer with L. Peletier and S. Verduyn Lunel.

October, 2000 - Workshop on Front Propagation in Periodic Media, Leiden University, Netherlands. Co-organizer with L. Peletier and S. Verduyn Lunel.

July 30 – August 3, 2001 - Sixth International Conference on Difference Equations and Applications, Augsburg, Germany - member of Scientific Committee.

July 12–16, 2003 - Conference on New Directions in Dynamics of Evolution Equations, Hunan University, Changsha, China - member of Scientific Committee.

September 15–17, 2004 - Workshop on Differential Equations and their Applications, Kadir Has University, Istanbul, Turkey - member of Scientific Committee.

November 6–11, 2004 - Workshop on Functional Differential Equations, Banff International Research Station - co-organizer.

January, 2005 - Sixth Americas Conference on Differential Equations and Nonlinear Analysis, Santiago, Chile - member of Organizing and Scientific Committee.

July 17–21, 2006 - Conference on Dynamical Systems and Differential Equations, Guangzhou, China - member of Scientific Committee.

July 23–27, 2007 - International Conference on Difference Equations and Applications, Lisbon, Portugal - member of Scientific Committee.

January 28 – February 1, 2008 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil - member of Scientific Committee.

September 24–28, 2008 - Conference on Infinite Dimensional Dynamical Systems, Fields Institute, Toronto, Canada. Co-organizer (with Jianhong Wu [York University, Toronto] and Yingfei Yi [Georgia Institute of Technology]).

June 1–5, 2009 - International Conference on Nonlinear and Stochastic Dynamics, Sichuan University, Chengdu, China. Member of Scientific Committee.

October 12–16, 2009 - Workshop on Delay Differential Equations, Max Planck Institute, Dresden, Germany. Co-organizer (with Tony Humphries [McGill University, Montreal] and Jayme De Luca [University of Sao Paulo at Sao Carlos, Brazil]).

June 7–11, 2010 - Workshop on Low-Dimensional Structures in Dynamical Systems, American Institute of Mathematics, Palo Alto, CA. Co-organizer (with Roger Nussbaum [Rutgers] and Hans-Otto Walter [Giessen, Germany]).

July 4–8, 2011 - Conference on Differential & Difference Equations and Applications, Azores University, Ponta Delgada, Portugal - member of Scientific Committee.

December 3–7, 2012 - Workshop on Lattice and Nonlocal Dynamical Systems and Applications, Institute for Mathematics and its Applications, University of Minnesota. Co-organizer with Peter Bates (Michigan State University) and Wenxian Shen (Auburn University).

February 4–7, 2013 - ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil - member of Scientific Committee.

March 16–20, 2013 - International Conference on Dynamics of Differential Equations, Georgia Institute of Technology - member of Organizing Committee.

June, 2014 - Eighth International Conference on Recent Advances in Differential Equations, Guilin, China. Chair of Scientific Committee.

June, 2015 - Ninth International Conference on Recent Advances in Applied Dynamical Systems, Guangzhou, China. Co-Chair of Scientific Committee.

ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil, February 2016. Member of Scientific Committee.

Tenth International Conference on Recent Advances in Applied Dynamical Systems, Jiangsu Normal University, Xuzhou, China, June, 2016. Member of Scientific Committee.

ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil, February 2017. Member of Scientific Committee.

Eleventh International Conference on Recent Advances in Applied Dynamical Systems, Xi'an, China, June, 2017. Member of Scientific Committee.

International Conference on Topological Nonlinear Analysis, Guangzhou, China, 2017. Member of Scientific Committee

XI America's Conference on Differential Equations and Nonlinear Analysis, University of Alberta, Edmonton, Canada, August, 2017. Member of Scientific Committee.

ICMC Summer Meeting on Differential Equations, University of São Paulo, São Carlos, Brazil, February 2018. Member of Scientific Committee.

Thirteenth International Conference on Recent Advances in Applied Dynamical Systems, Hangzhou, China, June, 2019. Member of Scientific Committee.

XII America's Conference on Differential Equations and Nonlinear Analysis, to be held in Guanajuato, Mexico, December, 2019. Member of Scientific Committee.

Miscellaneous Service

Chair of Elsevier Jack K. Hale Prize Committee (to be awarded 2014).

External reader for thesis of Martine Marion, University of Paris, student of R. Temam (1986).

External reader for thesis of Ignać Tereščak, Comenius University, Bratislava, Slovakia, student of P. Poláčik (1994).

Transactions of the American Mathematical Society Editorial Board Member - 767 manuscript handled over eight year period (January, 1992-January, 2000).

Member of Grant Selection Committee for Applied Mathematics, NSERC (Natural Science and Engineering Research Council, Canada). Three year term (Summer, 1997-Summer, 2000). Chair of committee for final year.

Advisory board of Society for Industrial and Applied Mathematics (SIAM) Activity Group on Dynamical Systems (two year term, 2000-2001). The board also functioned as the scientific committee for the SIAM Meeting on Dynamical Systems (May, 2001).

External reader for thesis of Benjamin Kennedy, Rutgers University (2007).

External reader for habilitation thesis of Marianne Akian, INRIA, Paris (2007).

NSF Proposal Panel Member.

Chair of SIAM Moser Prize Committee (Fall, 2010, for 2011 award).

Chair of SIAM Reid Prize Committee (Fall, 2010, for 2011 award).

9. Teaching

Spring 2019:   APMA 2200

Fall 2018:   APMA 2190

Spring 2018:   APMA 1360

Fall 2017:   Sabbatical leave

Spring 2017:   APMA 2200

Fall 2016:   APMA 2190

Spring 2016:   APMA 1360

Fall 2015:   APMA 0340

10. Date: December 31, 2018.