

C.V. (January 2012)

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DEGREE HELD	FIELD	INSTITUTION	YEAR
B.S.	Mathematics	Fudan University, Shanghai, China	1968
M.S.	Mathematics	Fudan University, Shanghai, China	1982
Ph.D.	Mathematics	University of Minnesota	1988

PROFESSIONAL EXPERIENCE

1996-present	Professor	Dept of Mathematics, Univ of South Florida
1992-96	Associate Professor	Dept of Mathematics, Univ of South Florida
1990-92	Assistant Professor	Dept of Mathematics, Univ of South Florida
1989-90	Visiting Assistant Professor	School of Mathematics, Univ of Minnesota
1988-89	Research Assistant Professor	Dept of Mathematics, Purdue University
1986-88	Ph.D. Graduate Student	School of Mathematics, Univ of Minnesota
1982-86	Lecturer	Institute of Mathematics, Fudan University

RESEARCH GRANTS AND AWARDS	INSTITUTION	YEAR
Advances in Sciences and Technology Award	China State Education Commission	1986
National Award on Natural Sciences	China State Science Commission	1989
USF Research and Creative Scholarship Grant	University of South Florida	1991-94
NSF Grant, INT-9732631 (co-PI)	NSF, International Program	1998-2001
President's Award for Faculty Excellence	University of South Florida	2003
Ziqiang Distinguished Visiting Professorship	Shanghai University, China	2007
Guest Professorship	Shanghai Normal University, China	2010-13
NSF Grant, DMS-1010998 (co-PI)	NSF, International Conference	2010-12
Senior Visiting Scholarship	Fudan University, China	2011-13

EDITORIAL SERVICE

Associate Editor, Dynamics of Partial Differential Equations
Associate Editor, Journal of Applied Analysis and Computation

PERSONAL

Citizen of U.S.A.

RESEARCH INTERESTS

Infinite Dimensional Dynamical Systems
Partial Differential Equations and Applications
Mathematics of Finance
Mathematical Biology

BOOK

G.R. Sell and Y. You, Dynamics of Evolutionary Equations, (Applied Math Sciences, Vol. 143), Springer, New York, 2002. ISBN: 0-387-98347-3.

REFEREED PUBLICATIONS

[1] Y. You et al, Applications of linear programming to automatic optical designs, Acta Appl. Math. Sinica, 5 (1982), 78-84.

[2] Y. You, On some problems relating to the optimal control of linear systems with quadratic indefinite criteria in Hilbert spaces, Proceedings "Recent Development in Control Theory and Applications", Science Press, Beijing, (1982), 675-686.

[3] Y. You, On the generators of solution semigroups of linear retarded evolution equations in M^2 spaces, Fudan Journal (Natural Sci.), 21 (1982), 163-173.

[4] Y. Yao and Y. You, Linear quadratic unbounded optimal control on infinite horizon, Fudan Journal (Natural Sci.), 21 (1982), 403-415.

[5] Y. You, The unbounded quadratic optimal control for second-order linear systems, Fudan Journal (Natural Sci.), 22 (1983), 451-457.

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[8] Y. You, Indefinite quadratic-cost optimal control for distributed parameter systems with unbounded control operator, in "Control of Distributed Parameter Systems", edit. J. Babary and L.Letty, Pergamon, London, (1983), 619-625.

[9] Y. You, Optimal control for linear systems with a quadratic indefinite criterion in Hilbert spaces, Chin. Ann. Math., Ser. B, 4 (1983), 21-32.

[10] Y. Yao and Y. You, Some theorems on the unbounded control of distributed parameter systems, J. Mathematical Research & Exposition, 4 (1984), 87-92.

- [11] Y. You, On the solution of a class of operator Riccati equations, *Chin. Ann. Math., Ser. A*, 5 (1984), 219-227.
- [12] Y. You, The closed-loop optimal solution to a quadratic boundary control problem of hyperbolic systems, *Acta Appl. Sciences*, 3 (1985), 108-113.
- [13] Y. You, Closed-loop syntheses for quadratic differential games of distributed systems, *Chin. Ann. Math, Ser. B*, 6 (1985), 325-334.
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- [16] Y. You, The closed-loop solution to a class of differential games, *Acta Math Sciences*, 5 (1985), 251-260.
- [17] Y. Yao and Y. You, The closed-loop optimal solution for some parabolic systems with pointwise control ($n = 2, 3$), *Acta Appl. Sciences*, 3 (1985), 223-232.
- [18] Y. You, A nonlinear integral equation and an optimal state feedback, *Acta Math. Sinica*, 29 (1986), 837-846.
- [19] Y. You, Optimal control problems with hybrid quadratic criteria, *Chin. Ann. Math., Ser. B*, 7 (1986), 452-462.
- [20] Y. You, The direct expressions of solutions of Riccati differential equations, *Acta Appl. Math. Sinica*, 9 (1986), 201-209.
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- [23] Y. You, Infinite dimensional tracking optimal control via dynamical output feedback, *Chin. Ann. Math., Ser. B*, 8 (1987), 440--448.
- [24] E. B. Lee and Y. You, Stabilization of a hybrid (string/point-mass) system, *Proceedings of the Fifth International Conference on Systems Engineering*, (1987), 109-112.
- [25] E. B. Lee and Y. You, An infinite dimensional quadratic theory for linear delay systems, *IEEE Decision and Control*, Vol. 26 (1987), 546--551.

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- [29] E. B. Lee and Y. You, Optimal control of two-dimensional linear systems, IEEE Decision and Control, Vol. 26 (1987), 1572--1576.
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- [82] Y. You, Global dynamics of the Brusselator equations, *Dynamics of PDE*, Vol. 4, No. 2, (2007), 167--196.
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[94] Y. You, Global attractor of a coupled two-cell Brusselator model, arXiv:0906.4345v1, "Infinite Dimensional Dynamical Systems", edit. J. Mallet-Paret, J. Wu, Y. Yi, and H. Zhu, accepted 2010, *Fields Institute Communication Series*, No. 62, in press.

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[98] Y. You, Global dynamics of an autocatalytic reaction-diffusion system with functional response, *J. Applied Analysis & Computation*, Vol. 1, (2011), 121--142.

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[101] Y. You, Global dynamics of the Oregonator system, *Mathematical Methods in the Applied Sciences*, accepted 2011, published online (2012), doi: 10.1002/mma.1591.

PAPERS COMPLETED AND IN PROGRESS

[102] Y. You and S. Zhou, Global dissipative dynamics of an extended Brusselator system, submitted to *Nonlinear Analysis: Real World Applications*, 2011.

[103] Y. You, C. Zhao and S. Zhou, The existence of uniform attractors for 3D Brinkman-Forchheimer equations, submitted to *Discrete and Continuous Dynamical Systems, Ser. A*, 2011.

[104] Y. Zhang, Y. You, W.X. Ma, and H.Q. Zhao, Resonance of solitons in the coupled higher-order Ito equations, submitted to JMAA, 2011.

[105] Y. You, Robustness of global attractors for reversible Gray-Scott systems, submitted to JDDE, 2011.

[106] C. Zhao and Y. You, Approximation of the incompressible convective Brinkman-Forchheimer equations, submitted to JMAA, 2011.

[107] Y. You, Upper-semicontinuity of global attractors for reversible Schnackenberg equations, submitted to Chaos, Solitons & Fractals, 2011.

INVITED TALKS AND LECTURES / SPECIAL SESSIONS ORGANIZED

1. The 28th IEEE/SIAM Conference on Decision and Control, Special Session WP6, "An infinite dimensional quadratic theory for linear delay systems", Los Angeles, Dec 1987.

2. Purdue University, Department of Mathematics, Colloquium, "Stabilization of hybrid elastic systems", West Lafayette, March 1988.

3. University of Minnesota, School of Mathematics, Colloquium, "Nonlinear exponential stabilization of Boussinesq equations", Minneapolis, May 1989.

4. Penn State University, Department of Mathematics, Colloquium, "Quadratic optimal control of delayed differential equations", March 1990.

5. University of Ottawa, Department of Mathematics, Colloquium, "Inertial Manifolds of infinite dimensional systems", Ottawa, Canada, March 1990.

6. Cornell University, Center for Applied Mathematics, Colloquium, "Invariant manifolds for retarded semilinear wave equations", Ithaca, Dec 1990.

7. AMS Meeting #865, co-organizer of the meeting and organizer of the special session: "Operator Methods for Control Problems", Tampa, March 1991.

8. The Second Ulam Mathematics Conference, Special Session, "Global dynamics and stabilization of elastic systems via inertial manifold approach", West Palm Beach, April 1991.

9. University of Minnesota, Center for Control Sciences and Dynamical Systems, TV Network Seminar, "Global dynamics and control of nonlinear elastic systems", Minneapolis, May 1991.

10. The Second International Conference on Industrial and Applied Mathematics, "Long-time behavior of dissipative KdV equations: inertial manifolds", Washington, DC, 1991.

11. University of Central Florida, Department of Mathematics, Colloquium, "Global dynamics and control of nonlinear evolutionary equations", Orlando, Feb 1992.
12. The First World Congress of Nonlinear Analysis, Special Session, "A global existence theorem on nonlinear evolution equations", Tampa, Aug 1992.
13. International Center for Theoretical Physics, Workshop on Infinite Dimensional Dynamical Systems, two lectures: (1) "Semiflows and global attractors", (2) "Inertial manifolds and applications in nonlinear evolution equations", Trieste, Italy, May 1993.
14. AMS Meeting #886, Mini-symposium, "The Optimal control of Ginzburg-Landau equation", College Station, TX, Oct 1993.
15. University of Minnesota, AHPCRC and School of Mathematics Seminar, "Global dynamics of singularly perturbed Hodgkin-Huxley equations, Minneapolis, Feb 1994.
16. University of Minnesota, AHPCRC and School of Mathematics Seminar, "Nonlinear wave equations with non-monotone damping", Minneapolis, April 1994.
17. Warwick University, Mathematics Institute, Colloquium, "Approximate inertial manifolds for nonlinear parabolic equations", Coventry, England, June 7, 1994.
18. The European Conference on Control Systems, "Optimal feedback control of nonlinear evolutionary equations", Lochem, Netherlands, June 14, 1994.
19. Fudan University, Special Invited Lecture Series, "Infinite dimensional dynamical systems I, II, III", Shanghai, China, June 27 - July 3, 1994.
20. AMS Annual Meeting, Co-organizer of the special session, "Nonlinear wave equations with asymptotically monotone damping", San Francisco, CA, Jan 1995.
21. The First Asian Computational Fluid Dynamics Conference, Invited Talk, "Approximate inertial manifolds and computational effects for chemical reacting flows", Hong Kong, Jan 1995.
22. Warwick Workshop on Stochastic Evolution Equations as Dynamical Systems, Plenary Speaker, "Topics of global dynamics of semilinear evolution equations: (I) Global attractors, (II) Inertial manifolds", Coventry, England, March 27-31, 1995.
23. The International Conference on Nonlinear Evolution Equations and Infinite Dimensional Dynamical Systems, Invited Speaker, "Global dynamics of singularly perturbed Hodgkin-Huxley equations", Shanghai, China, June 12-16, 1995.
24. SIAM Annual Meeting, Invited Speaker in a Mini-symposium, "Global dynamics of weakly dissipative systems", Charlotte, NC, Oct 23-26, 1995.

25. Institut National de Recherche en Informatique et en Automatique (INRIA), Seminar, "Global dynamics of nonlinear evolutionary equations", Sophia-Antipolis, France, June 21, 1996.
26. The Second World Congress of Nonlinear Analysis, Organizer of the special session: "Dynamics and Analysis of Nonlinear Differential Equations", Athens, Greece, July 10-17, 1996.
27. The Second World Congress of Nonlinear Analysis, "Weakly damped nonlinear dynamics", Athens, Greece, July 16, 1996.
28. Wright State University, Department of Mathematics and Statistics, Colloquium, "Asymptotic dynamics of dissipative PDEs", Dayton, Ohio, Nov 15, 1996.
29. International Conference EQUADIFF 99, "Global dynamics of nonlinear hyperbolic equations with non-monotone damping", Symposium B: Nonlinear Wave Equations, Berlin, Germany, Aug 3, 1999.
30. The 3rd International Conference on Nonlinear Problems in Aviation and Aerospace, invited speaker, "Nonuniformly attracting inertial manifolds and stabilization of large space structures", Daytona Beach, FL, May 10-12, 2000.
31. INRIA Sophia-Antipolis, "Maximum principle of nonlinear infinite dimensional control systems", Nice, France, May 25, 2000.
32. The 14th International Symposium on Mathematical Theory of Networks and Systems, "Synthesis solution to non-quadratic differential games in Hilbert spaces", Perpignan, France, June 19-23, 2000.
33. University of Texas at Arlington, Department of Math, Colloquium, "Global attractors of nonlinear hyperbolic equations with local damping", Arlington, TX, July 26, 2000.
34. AMS-Hong Kong Math. Soc. Joint Conference, "Global dynamics of hyperbolic semiflows with weak dissipation", Hong Kong, Dec 13-16, 2000.
35. Institute of Computational Mathematics and Scientific/Engineering Computing, Chinese Academy of Sciences, Colloquium, "Numerical approximations of infinite dimensional dissipative dynamics", Beijing, China, May 25, 2001.
36. Chinese Academy of Mathematics, Chinese Academy of Sciences, "Global dynamics of non-autonomous nonlinear evolutionary equations", Beijing, China, May 31, 2001.
37. The International Conference on New Directions in Dynamical Systems, "Inertial manifolds for non-autonomous evolutionary equations", Kyoto, Aug 5 -15, 2002.

38. AMS Meeting 982, Special Session on Computational Methods in Analysis, "Spectral barriers and inertial manifolds of dissipative evolutionary equations under time discretizations", Orlando, FL, Nov 9-10, 2002.
39. IMA Workshop on Cellular Physiology, "Intercellular ephaptic coupling model and action potential propagation", University of Minnesota, June 27, 2003.
40. University of Kansas, Department of mathematics, Colloquium, "Inertial and integral manifolds for non-autonomous evolutionary equations", April 1, 2004.
41. University of Szeged (Szeged, Hungary), Bolyai Institute, Colloquium, "Global dynamics of non-autonomous evolutionary equations", May 20, 2004.
42. Eotvos Lorand University (Budapest, Hungary), Department of Mathematics, Seminar, "Global attractors and inertial manifolds of infinite dimensional dynamical systems", May 24, 2004.
43. The Chinese University of Hong Kong (Hong Kong), Department of Mathematics, seminar, "Inertial manifolds for non-autonomous skew product semiflows", October 7, 2004.
44. SIAM Conference on Applications of Dynamical Systems, invited talk in special session MS 54: Non-autonomous Dynamical Systems, "Inertial manifolds for non-autonomous skew product semiflows and applications", Snowbird, UT, May 24, 2005.
45. First International Conference on Recent Advances in Bifurcation theory and Applications of Dynamical Systems, invited speaker, "Multiple-spike ground state solutions of the activator-inhibitor equations", Jinhua, China, June 10, 2005.
46. Workshop on Control Theory and Mathematical Finance --- in Memory of Professor Xunjing Li's Seventieth Birthday, "Global dynamics of non-autonomous evolutionary equations", Shanghai, China, June 4, 2005.
47. Fudan University, School of Mathematics and Sino-French Mathematics Institute, colloquium talk, "Gierer-Meinhardt equations and spike pattern formation", Shanghai, China, June 23, 2005.
48. Jackson State University, Department of Mathematics, colloquium talk, "Activator-inhibitor equations and biological pattern formation", Jackson, MS, February 2, 2006.
49. SIAM Conference on Analysis of Partial Differential Equations, "Multiple-spike ground state solutions of the Gierer-Meinhardt equations", Boston, MA, July 10, 2006.
50. Chinese Academy of Sciences, the Institute of Computational Mathematics, colloquium talk, "Pattern formation equations: multi-spike ground state solutions and global dynamics", Beijing, China, Nov 3, 2006.

51. The Northeastern Normal University, Department of Mathematics, Invited lecture series, "Pattern formation and global dynamics of reaction-diffusion systems (I and II)", Changchun, China, Nov 7 and Nov 9, 2006.
52. Harbin Institute of Technology, Institute of Mathematics, colloquium talk, "Global dynamics of the Gray-Scott equations", Harbin, China, Nov 11, 2006.
53. Sichuan University, School of Mathematics, colloquium talk, "Patterns and dynamics of the Gierer-Meinhardt equations and the Gray-Scott equations", Chengdu, China, Nov 22, 2006.
54. Fudan University, School of Mathematics, colloquium talk, "Global dynamics of the Brusselator equations", Shanghai, China, Dec 1, 2006.
55. Zhejiang Normal University, School of Mathematics, Physic and Information Science, colloquium talk, "Global attractor of Gray-Scott equations", Jinhua, China, Nov 21, 2007.
56. Zhejiang University, Institute of Math Sciences, colloquium talk, "Mathematical modeling and analysis of option pricing with a jump-diffusion volatility", Hangzhou, China, Nov 26, 2007.
57. Shanghai University, Department of Mathematics, colloquium talk, "Asymptotic regularity of vorticity for the 2D Navier-Stokes equation and recent progresses in the global regularity of the 3D Navier-Stokes equation", Shanghai, China, Nov 30, 2007.
58. Shanghai Normal university, Department of Applied Mathematics, colloquium talk, "Regularity and global attraction of Navier-Stokes equation", Shanghai, Dec 7, 2007.
59. First Joint International Meeting between the AMS and the New Zealand Math Soc., "Regularity asymptotics of vorticity for the 2D Navier-Stokes equation", Wellington, New Zealand, Dec 12, 2007.
60. The Seventh AIMS International Conference on Dynamical Systems, Differential Equations and Applications, "Global attractor of the Schnackenberg equations", special session 35, Arlington, TX, May 19, 2008.
61. The Seventh AIMS International Conference on Dynamical Systems, Differential Equations and Applications, "Global dynamics of 3D Gray-Scott equations", special session 25, Arlington, TX, May 20, 2008.
62. Kunming University of Science and Technology, Department of Applied Math, colloquium talk, "Global dynamics of Selkov and Schnackenberg equations", Kunming, China, June 30, 2008.

63. Yunnan University, Department of Mathematics, colloquium talk, “Exponential attractor of 3D Gray-Scott equations”, Kunming, China, June 30, 2008.
64. Yunnan Normal University, Department of Applied Mathematics, colloquium talk, “Inertial manifolds of non-autonomous skew product semiflows and applications”, Kunming, China, July 1, 2008.
65. Central South University, School of Mathematics, colloquium talk, “Global attractors of a class of reaction-diffusion equations”, Changsha, China, July 7, 2008.
66. International Conference on Infinite Dimensional Dynamical Systems, “Global dynamics of cubic autocatalytic reaction-diffusion systems”, Fields Institute and York University, Toronto, Canada, September 24-28, 2008.
67. New Mexico Tech, Department of Mathematics, colloquium talk, “Global attractor and exponential attractor of cubic autocatalytic reaction-diffusion systems”, Socorro, NM, November 14, 2008.
68. International Workshop on Dynamical Systems and Related Problems, invited speaker, “Asymptotic dynamics of autocatalytic reaction-diffusion systems”, Shanghai, China, May 7-8, 2009.
69. Xuzhou Normal University, Department of Mathematics, colloquium talk, “Dynamics of cubic reaction-diffusion equations and applications”, Xuzhou, China, May 12, 2009.
70. International Conference on Mathematical Control Theory --- in honor of David L. Russell on the occasion of his 70th birthday, invited speaker, “Asymptotic dynamics of cubic autocatalytic reaction-diffusion systems”, Beijing, China, May 15-17, 2009.
71. International Workshop on Dynamical Systems and Related Topics, invited speaker, “Optimal Control of Nonlinear Evolutionary Equations”, Shanghai Normal University, China, May 17-18, 2010.
72. Zhejiang Normal University, School of Mathematics, Physics and Information Science, colloquium talk, “Optimal Control and Syntheses of Nonlinear Evolutionary equations”, Jinhua, China, May 21, 2010.
73. The 7th International Conference on Differential Equations and Dynamical Systems, co-organizer of the conference and organizer of the special session "Infinite Dimensional Dynamics and Applications", University of South Florida, Tampa, December 15-18, 2010.
74. The 5th International Conference on Recent Advances in Applied Dynamical Systems, invited speaker, “Global Dynamics of the Oregonator System”, Shanghai, China, May 16-18, 2011.

75. 2011 International Conference on Applied Mathematics & Interdisciplinary Research, invited speaker, “Global Attractors of the Oregonator System”, Tianjin, China, June 13-16, 2011.

76. Wenzhou University, Institute for Applied Mathematics, colloquium talk, “Global Attractors and Robustness of Autocatalytic Reaction-Diffusion Systems”, Wenzhou, China, September 21, 2011.

77. Xiamen University, School of Mathematics, colloquium talk, “Global Attractors and Robustness of Reversible Gray-Scott Systems”, Xiamen, China, September 26, 2011.

78. Fudan University, School of Mathematics, colloquium talk, “The Existence and Upper-Semicontinuity of Global Attractors for Reversible Autocatalytic Reaction-Diffusion Systems”, Shanghai, China, October 28, 2011.

SUPERVISED Ph.D. GRADUATE STUDENTS

Jun Cao, Ph.D. 1994

Ahmed Y. Abdallah, Ph.D. 2003

Djiby Fall, Ph.D. 2005

Michiru Shibata, Ph.D. 2007

Irena Andreevska, Ph.D. 2008

SUPERVISED M. A. GRADUATE STUDENTS

Mr. Minzhi Wang, M.A. 1997

Ms. Jingli Song, M.A. 1998

PROFESSIONAL SERVICE (SELECTED):

Referee of NSF Research Proposals: Since 1990.

Reviewer for a number of international journals in mathematics.

Reviewer for the NASA Postdoctoral Program, 2009.

Co-organizer of the Seventh International Conference on Differential Equations and Dynamical Systems, Tampa, USA, December 15-18, 2010. (NSF funded)

COLLEGE AND DEPARTMENT SERVICES (SELECTED)

Coordinator of Graduate Admissions, Program of Mathematics, USF, 1993-95

College Graduate Council, College of Arts and Sciences, USF, 1993-95

Advisory Committee, Department of Mathematics, USF, 1994-96

Nagle Lecture Committee, Department of Mathematics, USF, 1995-97

Tenure and Promotion Committee, College of Arts and Sciences, USF, 1998-2000.

Chair of Graduate Committee, Department of Mathematics, USF, 1998-2000.

Advisory Committee, Department of Mathematics, USF, 2002-2004
Tenure and Promotion Committee, College of Arts and Sciences, USF, 2005-2007
Advisory Committee, Department of Math and Stat, USF, 2008-2009
Faculty Awards Committee, College of Arts and Sciences, USF, 2008- 2010
Ad Hoc Committee on Department Chair Search, Dept of Math and Stat, 2009
Advisory Committee, Department of Math and Stat, USF, 2009-2010
Director of Graduate Program of Mathematics, USF, 2009-2011