CURRICULUM VITAE

BIXIANG WANG

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EDUCATION

July 1991–June 1994:	**Ph.D in Mathematics** Lanzhou University, Lanzhou, China
Sept. 2001–Aug 2003:	**M.S. in Computer Science** McMaster University Hamilton, Ontario, Canada
July 1988–June 1991:	**M.S. in Mathematics** Lanzhou University Lanzhou, China
July 1984–June 1988:	**B.S. in Mathematics** Lanzhou University Lanzhou, China

ACADEMIC POSITIONS

2010–Present:	**Associate Professor** Department of Mathematics New Mexico Institute of Mining and Technology, USA
Aug. 2005–2010:	**Assistant Professor** Department of Mathematics New Mexico Institute of Mining and Technology, USA
Aug. 2003–May 2005:	**Visiting Assistant Professor** Department of Mathematics University of Kansas, USA
Aug. 2001–July 2003:	**Teaching Assistant** Department of Computing and Software McMaster University, Canada
Aug. 2000–Dec. 2000:	**Visiting Assistant Professor** Department of Mathematics University of Texas-Pan American, USA
Sept. 1999–July 2000:	**Visiting Assistant Professor** Department of Mathematics Brigham Young University, USA
Sept. 1998–Aug. 1999:	**Postdoctor** Department of Mathematics Brigham Young University, USA
July 1998–Aug 1998:	**Visiting Research Fellow** Mathematical Institute University of Cologne, Cologne, Germany
June 1997–Aug 1998:	**Research Fellow** Departamento de Matematica Aplicada Universidad Complutense de Madrid, Madrid, Spain
July 1996–June 1997:	**Associate Professor** Department of Applied Mathematics Tsinghua University, Beijing, China
June 1994–June 1996:	**Postdoctor** Beijing Institute of Appl. Phys. and Comp. Math., China

RESEARCH INTERESTS

AMS Subject Classifications (2000): 35B40, 37H99, 60H15, 37L30, 35K55, 92C55, 58K55, 90C30.

1. Deterministic and Random Infinite Dimensional Dynamical Systems;
2. Nonlinear Partial Differential Equations;
3. Singular Perturbation Problems;
4. Mathematical Biology;
5. Applied Nonlinear Analysis, Variational Methods.

GRANTS AND AWARDS

1. National Science Foundation, DMS-0703521, principal investigator, $158,040 (2007-2010).
2. Research Fellowship of German Academic Exchange Service (DAAD) (1998).
3. Research Fellowship of Spanish Ministry of Education (1997-1999).

PUBLICATIONS

1. Bixiang Wang, Asymptotic behavior of stochastic wave equations with critical exponents on $\mathbb{R}^3$, Accepted by Transactions of AMS, 2010.
2. Bixiang Wang and Robert Jones, Asymptotic behavior of a class of non-autonomous degenerate parabolic equations, *Nonlinear Analysis TMA*, **72** (2010) 3887-3902.
3. Bixiang Wang and Xiaoling Gao, Random attractors for wave equations on unbounded domains, *Discrete and Continuous Dynamical Systems*, **Special** (2009), 800-809.
4. Bixiang Wang, Upper semicontinuity of random attractors for non-compact random dynamical systems, *Electronic J. Differential Equations*, **2009** (2009), No. 139, 1-18.
5. Bixiang Wang, Random attractors for the stochastic FitzHugh-Nagumo system on unbounded domains, *Nonlinear Analysis TMA*, **71** (2009), 2811-2828.
6. Bixiang Wang, Pullback attractors for the non-autonomous FitzHugh-Nagumo system on unbounded domains, *Nonlinear Analysis TMA*, **70** (2009), 3799-3815.
7. Bixiang Wang, Random attractors for the stochastic Benjamin-Bona-Mahony equation on unbounded domains, *J. Differential Equations*, **246** (2009), 2506-2537.
8. Bixiang Wang, Pullback attractors for non-autonomous Reaction-Diffusion equations on $\mathbb{R}^n$, *Frontiers of Mathematics in China*, **4** (2009), 563-583.
9. Peter W. Bates, Kening Lu and Bixiang Wang, Random attractors for stochastic Reaction-Diffusion equations on unbounded domains, *J. Differential Equations*, **246** (2009), 845-869.
10. Guglielmo Fucci, Bixiang Wang and Preeti Singh, Asymptotic behavior of the Newton-Boussinesq equation in a two-dimensional channel, *Nonlinear Analysis TMA*, **70** (2009), 2000-2013.
11. Bixiang Wang, Long time behavior of lattice Schrodinger systems, *Advances in Mathematics Research,* **9** (2009), 1-19.

12. Bixiang Wang, Uniform attractors of non-autonomous discrete Reaction-Diffusion systems in weighted spaces, *International Journal of Bifurcation and Chaos*, **18** (2008), 695-716.

13. Bixiang Wang and Siyu Lin, Existence of global attractors for the three-dimensional Brinkman-Forchheimer equation, *Mathematical Methods in the Applied Sciences*, **31** (2008), 1479-1495.

14. Timothy Trujillo and Bixiang Wang, Continuity of strong solutions of the Reaction-Diffusion equation in initial data, *Nonlinear Analysis TMA*, **69** (2008), 2525-2532.

15. Bixiang Wang, Daniel W. Fussner and Chenggeng Bi, Existence of global attractors for the Benjamin-Bona-Mahony equation in unbounded domains, *J. Phys. A*, **40** (2007), 10491-10504.

16. Bixiang Wang, Dynamical behavior of the almost-periodic discrete FitzHugh-Nagumo systems, *International Journal of Bifurcation and Chaos* , **17** (2007), 1673-1685.

17. Bixiang Wang, Asymptotic behavior of non-autonomous lattice systems, *J. Math. Anal. Appl.*, **331** (2007), 121-136.

18. Weishi Liu and Bixiang Wang, Asymptotic behavior of the FitzHugh-Nagumo system, *International Journal of Evolution Equations*, **2** (2007), 129-163.

19. Bixiang Wang, Dynamics of systems on infinite lattices, *J. Differential Equations*, **221** (2006), 224-245.

20. Milena Stanislavova, Atanas Stefanov, Bixiang Wang, Asymptotic smoothing and attractors for the generalized Benjamin-Bona-Mahony equation on R^3, *J. Differential Equations*, **219** (2005), 451-483.

21. Erik Van Vleck, Bixiang Wang, Attractors for lattice FitzHugh-Nagumo systems, *Physica D*, **212** (2005), 317-336.

22. Kening Lu, Bixiang Wang, Upper semicontinuity of attractors for the Klein-Gordon-Schrodinger equation on unbounded domains, *International Journal of Bifurcation and Chaos*, **15** (2005), 157-168.

23. Christopher Kumar Anand, Tamas Terlaky, Bixiang Wang, Rapid and embeddable design method for magnetic resonance image reconstruction resampling kernels, *Optimization and Engineering*, **5** (2004), 485-502.

24. Bixiang Wang, Uniqueness of solutions for the Ginzburg-Landau model of superconductivity in three spatial dimensions, *J. Math. Anal. Appl.*, **266** (2002), 1-20.

25. Boling Guo, Bixiang Wang, Long time behavior of the solutions for the multidimensional Kolmogorov-Spieqel-Sivashinsky equation, *Acta Math. Sinica*, **18** (2002), 579-596.

26. Peter W. Bates, Kening Lu, Bixiang Wang, Attractors for lattice dynamical systems, *International Journal of Bifurcation and Chaos*, **11** (2001), 143-153.

27. Kening Lu, Bixiang Wang, Attractors for the Klein-Gordon-Schrodinger equation in unbounded domains, *J. Differential Equations*, **170** (2001), 281-316.

28. Anibal Rodriguez-Bernal, Bixiang Wang, Cauchy problem for the time dependent Ginzburg-Landau model of superconductivity, *Proceedings of Royal Society of Edinburgh*, **130A** (2000), 1383-1404.

29. Anibal Rodriguez-Bernal, Bixiang Wang, Attractors for partly dissipative reaction diffusion equations, *J. Math. Anal. Appl.*, **252** (2000), 790–803.

30. Wanli Yang, Bixiang Wang, On the question of global existence for the two-component reaction diffusion systems with the mixed boundary conditions, *Nonlinear Analysis TMA*, **39** (2000), 755-766.

31. Bixiang Wang, Attractors for reaction diffusion equations in unbounded domains, *Physica D*, **128** (1999), 41-52.

32. Bixiang Wang, Existence of time periodic solutions for the Ginzburg-Landau equations of superconductivity, *J. Math. Anal. Appl.*, **232** (1999), 394-412.

33. Bixiang Wang, Ning Su, Weak solutions of Ginzburg-Landau equations of superconductivity, *Appl. Math. Lett.*, **12** (1999), 115-118.

34. Bixiang Wang, Horst Lange, Attractors for the Klein-Gordon-Schrodinger equation, *J. Math. Phys.*, **40** (1999), 2445-2457.

35. Bixiang Wang, Ning Su, Existence of solutions for Ginzburg-Landau equations of superconductivity in three spatial dimensions, *Proceedings of Royal Society of Edinburgh*, **129A** (1999), 627-639.

36. Anibal Rodriguez-Bernal, Bixiang Wang, Robert Willie, Asymptotic behaviour of time-dependent Ginzburg-Landau equations of superconductivity, *Mathematical Methods in the Applied Sciences*, **22** (1999), 1647-1669.

37. Horst Lange, Bixiang Wang, Regularity of attractors for the Klein-Gordon-Schrodinger equation, *Mathematical Methods in the Applied Sciences*, **22** (1999), 1535-1554.

38. Anibal Rodriguez-Bernal, Bixiang Wang, Reduction of dimensions of approximate inertial manifolds by symmetry, *Bull. Australian Math. Soc.*, **60** (1999), 319-330.

39. Boling Guo, Bixiang Wang, Finite dimensional behaviour for the derivative Ginzburg-Landau equation in two spatial dimensions, *Physica D*, **89** (1995), 83-99.

40. Bixiang Wang, Boling Guo, Attractors for the Davey-Stewartson system on R^2, *J. Math. Physics*, **38** (1997), 2524-2534.

41. Bixiang Wang, Wanli Yang, Finite dimensional behaviour for the Benjamin-Bona-Mahony equation, *J. Phys. A*, **30** (1997), 4877-4885.

42. Bixiang Wang, Strong attractors for the Benjamin-Bona-Mahony equation, *Appl. Math. Lett.*, **10** (1997), 23-28.

43. Bixiang Wang, Attractors and approximate inertial manifolds for the generalized Benjamin-Bona-Mahony equation, *Mathematical Methods in the Applied Sciences*, **20** (1997), 189-203.

44. Hans G. Kaper, Bixiang Wang, Shouhong Wang, Determining nodes for the time dependent Ginzburg-Landau equations of superconductivity, *Discrete and Continuous Dynamical Systems*, **4** (1998), 205-224.

45. Bixiang Wang, Regularity of attractors for the Benjamin-Bona-Mahoney equation, *J. Phys. A*, **31** (1998), 7635-7645.

46. Bixiang Wang, Shouhong Wang, Gevrey class regularity for the time dependent Ginzburg-Landau equations of superconductivity, *Discrete and Continuous Dynamical Systems* , **4** (1998), 507-522.

47. Boling Guo, Bixiang Wang, Gevrey class regularity and approximate inertial manifolds for the Newton-Boussinesq equation, *Chinese Annals of Math.*, **19B** (1998), 179-188.

48. Boling Guo, Bixiang Wang, Gevrey regularity and approximate inertial manifolds for the derivative Ginzburg-Landau equation in two spatial dimensions, *Discrete and Continuous Dynamical Systems*, **2** (1996), 455-466.

49. Xianling Fan, Bixiang Wang, Remarks on periodic solutions of prescribed energy for singular Hamiltonian systems, *Houston J. Math.*, **17** (1991), 385-393.

50. Zhenchao Cao, Boling Guo, Bixiang Wang, Global existence theory for the two dimensional derivative Ginzburg-Landau equation, *Chinese Sci. Bull.*, **43** (1998), 393–395.

51. Boling Guo, Bixiang Wang, Exponential attractors for the generalized Ginzburg-Landau equation, *Acta Math. Sinica*, **16** (2000), 515–526.

52. Boling Guo, Bixiang Wang, Weak solutions to the two dimensional derivative Ginzburg-Landau equation, *Acta Math. Appl. Sinica*, **15** (1999), no. 1, 1-8.

53. Boling Guo, Bixiang Wang, Attractors for the long-short wave equations, *J. Partial Differential Equations*, **11** (1998), 361–383.

54. Boling Guo, Bixiang Wang, Upper semicontinuity of attractors for the reaction diffusion equation, *Acta Math. Scientia*, **18** (1998), 139-145.

55. Boling Guo, Bixiang Wang, Global existence for the Landau-Lifshitz equation, *Acta Math. Scientia*, **17** (1997), 429-436.

56. Bixiang Wang, Ke Shi, On nonlinear Galerkin approximation, *J. Computational Math.*, **17** (1997), 23-35.

57. Boling Guo, Bixiang Wang, Approximate inertial manifolds for the Newton-Boussinesq equation, *J. Partial Differential Equations*, **9** (1996), 237-250.

58. Boling Guo, Bixiang Wang, The global solution and its long time behaviour for a class of generalized LS type equations, *Progress in Natural Science*, **6** (1996), 533-546.

59. Boling Guo, Bixiang Wang, Approximation to the global attractor of nonlinear Schrodinger equation, *Appl. Math. J. Chinese Univ.*, **11** (1996), 125-136.

60. Xianling Fan, Bixiang Wang, Error analysis of nonlinear Galerkin methods for Kuramoto-Sivashinsky equations, *Numer. Math. J. Chinese Univ.*, **5** (1996), 49–61.

61. Xianling Fan, Bixiang Wang, Conservative periodic solutions of prescribed average energy for singular Hamiltonian inclusions, *J. Math. Study*, **28** (1995), 1-10.

62. Boling Guo, Bixiang Wang, The global solution and its long time behaviour for a class of generalized LS type equations, *Advances in Math.(China)*, **24** (1995), 179-181.

63. Boling Guo, Bixiang Wang, Approximation to the global attractor of for the Landau-Lifshitz equation of the Ferromagnetic spin chain, *Benjing Math.*, **1** (1995), 164-174.

64. Bixiang Wang, Approximate inertial manifolds to the Navier-Stokes equations, *Annals of Differential Equations*, **10** (1994), 408-423.

PREPRINTS

1. Weishi Liu and Bixiang Wang, Poisson-Nernst-Planck systems for narrow tubular-like membrane channels, arXiv:0902.4290v1 [math.AP], submitted.

CONFERENCE AND SEMINAR TALKS

1. **Invited speaker**, Random attractors for stochastic wave equations with critical exponents on unbounded domains, International Conference on Random Dynamical Systems, Tianjin, China, June 8 - 12, 2009.

2. **Invited speaker**, Random attractors for the stochastic FitzHugh-Nagumo system on unbounded domains, International Conference on Nonlinear and Stochastic Dynamics, Chengdu, China, June 1 - 5, 2009.

3. Non-autonomous dynamical systems, New Mexico Institute of Mining and Technology, November 21, 2008.
4. **Invited speaker**, Random attractors for the stochastic FitzHugh-Nagumo system on unbounded domains, Fifth World Congress of Nonlinear Analysts, Orlando, Florida, July 2 - 9, 2008.
5. **Invited speaker**, Random attractors for the stochastic FitzHugh-Nagumo system on unbounded domains, Seventh AIMS International Conference on Dynamical Systems, Differential Equations and Applications, Arlington, Texas, May 18 - 21, 2008.
6. **Invited speaker**, Asymptotic behavior of dissipative equations, University of Texas at Dallas, March 6, 2008.
7. Model reduction of ion flow through membrane channels, New Mexico Institute of Mining and Technology, November 9, 2007.
8. Reduction of the PNP system from three-dimensional domains to one-dimensional intervals, SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah, May 28 - June 1, 2007.
9. Strong convergence, weak convergence and their applications, New Mexico Institute of Mining and Technology, December 1, 2006.
10. **Invited speaker**, Attractors for the singularly perturbed FitzHugh-Nagumo system, 1019th AMS Meeting, Salt Lake City, Utah, October 7-8, 2006.
11. Asymptotic behavior of the FitzHugh-Nagumo system, SIAM Annual Meeting, Boston, July 10-12, 2006.
12. Asymptotic behavior of the FitzHugh-Nagumo system, 9th New Mexico Analysis Seminar, University of New Mexico, Albuquerque, April 6-8, 2006.
13. Attractors for lattice dynamical systems, New Mexico Institute of Mining and Technology, September 23, 2005.
14. Determining nodes for the Ginzburg-Landau equation, University of Kansas, April 6, 2005.
15. **Invited speaker**, Solutions and long time behavior of evolution equations, University of Wisconsin–Whitewater, March 31, 2005.
16. Asymptotic behavior of evolution equations, New Mexico Institute of Mining and Technology, March 24, 2005.
17. **Invited speaker**, Asymptotic behavior of evolution equations, Ohio University, Feb. 28, 2005.
18. Dynamics of the FitzHugh-Nagumo systems, University of Kansas, Oct. 6, 2004.
19. **Invited speaker**, Asymptotic behavior of the FitzHugh-Nagumo system on the real line, Academy of Armored Force Engineering, Beijing, Jul. 27, 2004.
20. **Invited speaker**, Asymptotic behavior of the FitzHugh-Nagumo system on the real line, Lanzhou University, Jun. 18, 2004.
21. **Invited speaker**, Asymptotic behavior of the FitzHugh-Nagumo system on the real line, international Workshop on Bifurcation Theory and Applications, Shanghai, May 23–26, 2004.
22. Dynamics of the Klein-Gordon-Schrödinger System, University of Kansas, Apr. 14, 2004.
23. Continuity properties for the Klein-Gordon-Schrödinger System, University of Kansas, Mar. 31, 2004.
24. Attractors for evolution equations, part II, University of Kansas, Sept. 24, 2003.

25. Attractors for evolution equations, part I, University of Kansas, Sept. 17, 2003.
26. **Invited speaker**, Attractors for evolution equations, Trent University, Feb. 27, 2003.
27. **Invited speaker**, Attractors for evolution equations, University of Texas-Pan American, Feb. 6, 2003.
28. Regularity of attractors for weakly dissipative equations, Brigham Young University, 1999.
29. Attractors for evolution equations in unbounded domains, Brigham Young University, 1998.
30. **Invited speaker**, Attractors for evolution equations in unbounded domains, University of Utah, Sept. 28, 1998.

PROFESSIONAL SERVICES

- **Assistant/Associate Editor** of the International Journal of Applied Mathematics and Statistics, 2005-present.
- **Member of Review Board** of the Scientific Journals International, 2006-present.
- **Reviewer** of the Mathematical Reviews (American Mathematical Society), 2000-present.
- **Reviewer** of the Zentralblatt MATH (European Mathematical Society), 2007-present.
- **Referee** of the following journals:
    1. Journal of Differential Equations.
    2. Physica D: Nonlinear Phenomena.
    3. Physics Letters A.
    4. Nonlinearity.
    5. Calculus of Variations and Partial Differential Equations.
    6. Annales de l'Institut Henri Poincar (C) Analyse Non Linaire.
    7. Nonlinear Analysis Series A: Theory, Methods & Applications.
    8. Journal of Theoretical Biology.
    9. Discrete and Continuous Dynamical Systems.
    10. Journal of Applied Mathematics.
    11. Dynamical Systems, An International Journal.
    12. Journal of Mathematical Analysis and Applications.
    13. Applied Mathematics Letters.
    14. Journal of Physics A: Mathematical and Theoretical
    15. Abstract and Applied Analysis
    16. Royal Society of Edinburgh Proceedings A.
    17. Applicable Analysis.
    18. Mathematical and Computer Modelling.
    19. Boundary Value Problems.
    20. Mathematical Methods in the Applied Sciences.

21. Journal of the Franklin Institute.
22. SIAM Journal on Mathematical Analysis.
23. Dynamics of Partial Differential Equations.
24. Acta Applicanda Mathematicae.
25. Advances in Difference Equations.
26. Frontiers of Mathematics in China.
27. Electronic Journal of Differential Equations.
28. Soochow Journal of Mathematics.
29. Communications in Pure and Applied Analysis.
30. Hiroshima Mathematical Journal.
31. Far East Journal of Applied Mathematics.
32. International Journal of Applied Mathematics and Statistics.
33. Taiwanese Journal of Mathematics.
34. Acta Mathematica Applicatae Sinica.
35. African Diaspora Journal of Mathematics.
36. Scientific Journals International.

- Co-organizer of the special sessions *Multi-scale Nonlinear Problems in Biological Systems: Experiments, Numerics and Theory* at SIAM Conference on Applications of Dynamical Systems, May 28 - June 1, 2007.
- Organizer of Computational and Applied Mathematics seminar, University of Kansas, 2004-2005.

EDITORIAL REFERENCES

I have been selected to be included in the biographical directories:

- Who's Who in America, 61st Edition, 2007.
- Who's Who Among America's Teachers and Educators, 11th Edition, 2007.
- Who's Who in Science and Engineering, 10th Edition, 2007.

MEMBERSHIPS

1. American Mathematical Society (AMS).
2. Society for Industrial and Applied Mathematics (SIAM).

GRADUATE STUDENTS

1. Timothy Trujillo (2006-2008), Master student, completed in 2008.
2. Siyu Lin (2006-2008), Master student, completed in 2008.
3. Xiaoling Gao (2007-present), Master student, expected to complete in 2009.
4. Robert Jones (2009-present), Master student, expected to complete in 2010.