

Junping Shi¹

CONTACT INFORMATION

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RESEARCH INTERESTS

- Nonlinear Partial Differential Equations (Elliptic and Parabolic Type).
- Applied Nonlinear Analysis; Bifurcation Theory; Infinite Dimensional Dynamical Systems.
- Mathematical Biology; Natural Resource Modeling; Spatiotemporal Pattern Formation.
- Other Applied Mathematics (Variational methods, Optimization, Celestial mechanics, etc.).

EDUCATION

- Ph.D. in Mathematics, Brigham Young University, Provo, Utah, USA, 1993-1998
Advisers: Peter W. Bates, Tiancheng Ouyang
- Undergraduate in Mathematics, Nankai University, Tianjin, China, 1990-1993

ACADEMIC POSITIONS

1. August 2012 – : Tenured Professor, College of William and Mary
2. August 2013 – August 2014: Acting BioMath Director, College of William and Mary
3. September 2006 – August 2012: Tenured Associate Professor, College of William and Mary
4. August 2000 – August 2006: Assistant Professor, College of William and Mary
5. July 1998 – July 2000: Visiting Assistant Professor, Tulane University
6. September 2001 – : Guest Professor, Harbin Normal University, China
(March 2006–March 2009, Longjiang Scholar Chair Professor)
7. January 2011 – : Guest Professor, Shanxi University, China
8. Feb–May, 2013: Visiting Professor, National Center of Theoretical Science, Hsinchu, Taiwan
9. Sept–Dec, 2007: Visiting Associate Professor, National Tsing Hua University, Hsinchu, Taiwan
10. Feb–Apr, 2005: Visiting Scholar, National Tsing Hua University, Hsinchu, Taiwan; University of Sydney, Sydney, NSW, Australia; University of New England, Armidale, NSW, Australia; and Tokyo Metropolitan University, Tokyo, Japan
11. May–June 2001: Visiting Scholar, Beijing (Peking) University, China

HONORS AND AWARDS

1. Margaret Hamilton Professor of Mathematics, 2016–2019.
2. Nominee for the State Council of Higher Education in Virginia (SCHEV) Outstanding Faculty Awards (OFA), 2015.
3. Plumeri Awards for Faculty Excellence, College of William and Mary, 2013-2015.
4. 100 Talent Program, Shanxi Province, China, 2010–2013.
5. Arts and Sciences Distinguished Associate Professor of Mathematics, College of William and Mary, 2010–2013.
6. Second class scientific research award, Heilongjiang province, China, 2008. (with Yuwen Wang, Ping Liu, Renhao Cui, Yuhua Zhao.)
7. Faculty Award for the Advancement of Scholarship by the Alpha Chapter of Phi Beta Kappa, College of William and Mary, 2008.
8. Second class research award from Department of Education of Heilongjiang province, China, 2003. (with Yuwen Wang, Wen Song, Mingyao Xu and Shaorong Pan.)
9. Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities, 2002.

¹Date: April 27, 2018

EDITORIAL
POSITIONS

1. (2018-) Associate Editor, Complex Variables and Elliptic Equations
2. (2016-) Associate Editor, Communications on Pure and Applied Analysis
3. (2016-) Associate Editor, Japan Journal of Industrial and Applied Mathematics
4. (2009-) Associate Editor, Journal of Mathematical Analysis and Applications
5. (2008-) Associate Editor, Applicable Analysis
6. (2008-) Editorial board, International Journal of Differential Equations
7. (2010-) One of editors, problem session, Electronic Journal of Differential Equations.
(<http://math.uc.edu/ode/odeprobs/odeprobs.html>)

Courses Taught

College of William and Mary (all are undergraduate courses, 3-4 credits)

1. Spring 2018: Math 212 (Multivariate Calculus), Math 442(Partial Differential Equations)
Math 496 (Christopher Hambric)
2. Fall 2017: Math 212 (Multivariate Calculus), Math 214 (Foundation of Mathematics),
Math 495 (Christopher Hambric), Math 496 (Xin Zou), Intr 496 (Xiang Liu)
3. Spring 2017: Math 212 (Multivariate Calculus), Math 442(Partial Differential Equations)
Math 495 (Xin Zou), Intr 495 (Xiang Liu)
4. Fall 2016: Math 214 (Foundation of Mathematics), Math 302 (Differential Equations)
5. Spring 2016: Math 214(Foundation of Mathematics), Math 442(Partial Differential Equations)
6. Fall 2015: Math 212 (Multivariate Calculus), Math 302 (Differential Equations)
7. Spring 2015: Math 214(Foundation of Mathematics), Math 442(Partial Differential Equations)
Math 410 (Data Science: theory and applications, 1 credit, co-teach with Gexin Yu)
8. Fall 2014: Math 214(Foundation of Mathematics), Math 345(Intro to Mathematical Biology)
9. Spring 2014: Math 214(Foundation of Mathematics), Math 442(Partial Differential Equations)
Math 410 (Big Data Analysis, 1 credit, co-teach with Tanujit Dey)
10. Fall 2013: Math 214(Foundation of Mathematics),
Math 441(Ordinary Differential Equations II)
11. Fall 2012 and Spring 2013: sabbatical leave, no teaching
12. Spring 2012: Math 112(Calculus II), Math 442(Partial Differential Equations),
Math 496 (Matt Becker, Tim Becker, Patrick King, Tim McDade),
Math 410(Topics in Computational Mathematics, 1 credit, co-teach with Jesse Berwald)
13. Fall 2011: Math 214(Foundation of Mathematics),
Math 441(Ordinary Differential Equations II),
Math 495 (Matt Becker, Tim Becker, Patrick King, Tim McDade)
14. Spring 2011: Math 214(Foundation of Mathematics), Math 442(Applied Mathematics, II),
Math 410(Topics in Computational Mathematics, 1 credit, co-teach with Drew LaMar)
15. Fall 2010: Math 214(Foundation of Mathematics), Math 441(Applied Mathematics, I)
16. Spring 2010: Math 302(Differential Equations), Math 442(Applied Mathematics, II),
Math 410(Topics in Computational Mathematics, 1 credit),
Math 496 (Michael Essman, William Jordan-Cooley, Yuanyuan Liu)
17. Fall 2009: Math 302(Differential Equations), Math 441(Applied Mathematics, I),
Math 410(Problem Solving Seminar, 1 credit, co-teach with Dey, Hasler, Yu)
Math 495 (Michael Essman, William Jordan-Cooley, Yuanyuan Liu)
18. Spring 2009: Math 311 (Elementary Analysis), Math 490(Math. Biology and PDE)
Math 496 (Daniel Hariprasad)
19. Fall 2008: Math 111 (Calculus I), Math 311 (Elementary Analysis)
Math 410(Problem Solving Seminar, 1 credit, co-teach with Dey, Hasler, Vinroot, Yu)
Math 495 (Daniel Hariprasad)

20. Spring 2008: Math 213(Multi-variable Calculus), Math 302(Differential Equations)
21. Spring and Fall 2007: sabbatical leave, no teaching
22. Fall 2006: Math 131 (Calculus for Life sciences I), Math 345 (Math. Models in biology) Math 410(Problem Solving Seminar, 1 credit)
23. Spring 2006: Math 302(Differential Equations), Math 490(Math. Biology and PDE)
24. Fall 2005: Math 302(Differential Equations), Math 490(Problem solving seminar)
25. Spring 2005: pre-tenure junior research leave, no teaching
26. Fall 2004: Math 112(Calculus II, 2 sections), Math 302(Differential Equations)
27. Spring 2004: Math 213(Multi-variable Calculus), Math 490(Math. Biology and PDE)
28. Fall 2003: Math 112(Calculus II), Math 302(Differential Equations)
29. Spring 2003: Math 112(Calculus II, 2 sections)
30. Fall 2002: Math 111(Calculus I), Math 441(Applied Mathematics, I)
31. Spring 2002: Math 302(Differential Equations), Math 490(Math. Biology and PDE)
32. Fall 2001: Math 302(Differential Equations), Math 410(510)(Math. Models in biology)
33. Spring 2001: Math 111(Calculus I), Math 112(Calculus II)
34. Fall 2000: Math 111(Calculus I, 2 sections)

Tulane University (all are undergraduate courses)

1. Spring 2000: Math 111(Probability and statistics), Math 224(Differential Equations)
2. Fall 1999: Math 221(Multi-variable calculus), Math 224(Differential Equations)
3. Spring 1999: Math 122(Calculus II), Math 224(Differential Equations)
4. Fall 1998: Math 121(Calculus I), Math 224(Differential Equations)

Brigham Young University (all are undergraduate courses)

1. Fall 1997: Math 312(Advanced engineering mathematics)
2. Summer 1997: Math 112(Calculus I)
3. Spring 1997: Math 110(College Algebra)
4. Fall 1996: Math 110(College Algebra)

National Tsing Hua University, Taiwan (graduate course)

1. Spring 2013: Math 637 (Reaction-diffusion models and bifurcation theory)
2. Fall 2007: Math 6101-01 (Bifurcation Theory in Banach Spaces and Application to Semilinear Elliptic Equations and Systems)

UNDERGRADUATE REU students (co)-supervised in College of William and Mary: (35)
STUDENTS
SUPERVISED 2004–2008:

| Name | Year | support source | position after graduation |
|------------------|------|----------------|-----------------------------------|
| Young He Lee | 2004 | NSF (2003-07) | |
| Lena Shebakov | 2004 | NSF (2003-07) | Ph.D(applied math), U. Washington |
| Jackie Taber | 2004 | NSF (2003-07) | M.S.(COR), William & Mary |
| Kristina Little | 2006 | NSF (2003-07) | Ph.D(bioengineering), U. Virginia |
| Derek LaMontagne | 2006 | NSF (2003-07) | Ph.D(chemistry), U. Florida |
| Fumie Hirata | 2006 | | M.S(math), Keio U., Japan |
| Michael Essman | 2008 | NSF-CSUMS | Navel Surface Warfare Center |

| Name | Year | support source | position after graduation |
|----------------------------------|------|------------------------|-------------------------------------|
| Daniel Hariprasad | 2009 | NSF-CSUMS,UBM | Ph.D(applied math) U. Arizona |
| William Jordan-Cooley* | 2009 | NSF-CSUMS,UBM | M.S.(education) Columbia U. |
| Yuanyuan Liu | 2009 | W&M Biomath | Ph.D(economics), Georgetown U. |
| Ruoyan Sun | 2010 | W&M Biomath | M.S.(public health) John Hopkins |
| Matt Becker [#] | 2010 | NSF-CSUMS,NSF(2010-14) | Ph.D(applied math), U. Maryland |
| Tim Becker* | 2010 | NSF-CSUMS,W&M | Ph.D(applied math), Rice U. |
| Patrick King [∇] | 2011 | NSF-CSUMS | Ph.D(physics), U. Virginia |
| Tim McDade* | 2011 | NSF-CSUMS | Microsoft |
| James Janopaul-Naylor | 2011 | Monroe Freshman | M.D., U. Penn |
| Cathrine King | 2011 | Monroe Freshman | M.S.(COR), William & Mary |
| Nicholas Ducharme-Barth* | 2012 | NSF-CSUMS,NSF(2010-14) | Ph.D(marine sci), U. Florida |
| Wei Xia | 2012 | NSF(2010-14) | Ph.D(indu engi), Lehigh U. |
| Haomiao Li | 2014 | NSF(2010-14) | M.S.(Statistics), Yale U. |
| Wade Hodson* | 2014 | NSF(2013-17) | Ph.D(physics), U. Maryland |
| Jing Yi Zhou* | 2014 | NSF(2013-17) | SBB Research Group |
| Mayee Chen (high school) | 2014 | | Princeton U. (undergrad.) |
| Kristina Kelly [♣] | 2015 | NSF-EXTREEMS-QED | Sageworks |
| Ben Dykstra | 2015 | NSF-EXTREEMS-QED | Capital One |
| Danella Singer [◇] | 2015 | NSF-EXTREEMS-QED | |
| Margaret Swift [#] | 2015 | NSF(2013-17) | IBM Consultant |
| Yi Zhang* | 2016 | NSF(2013-17,2017-20) | Ph.D(env. engi.), Cal. Tech. |
| Tianshu Li | 2016 | | Transfer to U. Virginia |
| Jasper Short [◇] | 2016 | NSF-EXTREEMS-QED | |
| Xiang Liu | 2017 | W&M Charles Center | DCL Capital |
| Xin Zou | 2017 | W&M Charles Center | M.S.(comp.sci.), Carnegie Mellon U. |
| Christopher Hambric [♡] | 2017 | NSF-EXTREEMS-QED | Ph.D.(math), Lehigh U. |
| Gabrielle Tauscheck [♡] | 2017 | NSF-EXTREEMS-QED | |
| Yiyang Liu [♡] | 2017 | W&M Charles Center | Ph.D.(applied math), U. Michigan |
| Mikela Dockery [♣] | 2017 | NSF-EXTREEMS-QED | |
| Chengli Huang | 2018 | W&M Charles Center | |

*: co-advised with Rom Lipcius, Leah Shaw; [#]: co-advised with Leah Shaw;

[∇]: co-advised with Daniel Vasiliu; [◇]: co-advised with Zhifu Xie; [♣]: co-advised with Larry Leemis;

[♡]: co-advised with Chi-Kwong Li; [♣]: co-advised with Jing Zhang

REU students supervised in China: (2)

| Name | Year | Institute | Position after graduation |
|--------------|------|--------------------------------|-------------------------------|
| Jiayin Jin | 2008 | Harbin Institute of Technology | Ph.D(math), Michigan State U. |
| Yongnan Zhao | 2008 | Harbin Normal University | |

Honors students advised in College of William and Mary: (11)

| Name | Year | position after graduation | co-advisers |
|-----------------------|-------|--|------------------|
| Daniel Hariprasad | 2009 | Ph.D(applied math) U. Arizona | |
| Michael Essman | 2010 | Researcher in military research center | |
| William Jordan-Cooley | 2010 | M.S.(education), Columbia U. | R.Lipcius,L.Shaw |
| Yuanyuan Liu | 2010 | Ph.D(economics), Georgetown U. | |
| Matt Becker | 2012 | Ph.D(applied math), U. Maryland | L.Shaw |
| Tim Becker | 2012* | Ph.D(applied math), Rice U. | R.Lipcius,L.Shaw |
| Patrick King | 2012 | Ph.D(physics), U. Virginia | D.Vassiliu |
| Tim McDade | 2012 | Microsoft | |
| Xiang Liu | 2017* | DCL Capital | |
| Xin Zou | 2017* | M.S.(comp.sci.), Carnegie Mellon U. | |
| Christopher Hambric | 2018 | Ph.D.(math), Lehigh U. | C.Li |
| Chengli Huang | 2018* | | |

*: supported by William and Mary Honors Fellowship

Serve in committee of Marc McGuigan (BS, Physics, 2003), Heather Wiseman (BS, Biology, 2006), David Gould (BS, Mathematics, 2009), Niha Zubair (BS, Mathematics, 2009), Georgia Pfeiffer (BS, Mathematics, 2011), Ben Holman (BS, Mathematics, 2011), Matt Peppe (BS, Mathematics, 2011), Brian Waldman (BS, Mathematics, 2012), Kyle Zora (BS, Physics, 2012), Ryan Gryder (BS, Mathematics, 2014), Peibo An (BS, Physics, 2016), Eve Chase (BS, Physics, 2016), Evan Dienstman (BS, Mathematics, 2017), John Marken (BS, Mathematics, 2017), Melissa Guidry (BS, Physics, 2017), Brandon Buncher (BS, Physics, 2017), Duo Wang (BS, Mathematics, 2018), Hangwei Zhuang (BS, Mathematics, 2018)

**GRADUATE
STUDENTS
SUPERVISED**

Master degree students supervised in Harbin Normal University: (25, all jointly with Yuwen Wang)

Jinfeng Wang, Yuhua Zhao (MS, 2005); Renhao Cui, Guanqi Liu, Jia Duo (MS 2006); Rui Diao, Hui Ding, Jili Fu, Linan Sun, Yanan Wang (MS 2008); Xinying Hao, Ting Li, Yuhang Liu, Da Yu, Fujun Zhang, Xin Zhang (MS 2009); Rui Wang, Min Cheng, Li Li, Xiuhong Feng, Ping Li, Hongbo Duan (MS 2010); Bao Ma, Xiaoling Wang, Dong Pan (MS 2011).

Ph.D students supervised in China (7 completed, 2 current)

| Name | Year | Institute | Co-adviser | Current Position |
|---------------|---------|-----------|--------------|--|
| Ping Liu | 2008 | NNU | Yuwen Wang | Professor, Harbin Normal U. |
| Fengqi Yi | 2008 | HIT | Junjie Wei | Professor, Harbin Engineering U. |
| Jinfeng Wang | 2011 | HIT | Junjie Wei | Professor, Harbin Normal U. |
| Yuhua Zhao | 2012 | NNU | Yuwen Wang | Asso. Prof., Harbin Normal U. |
| Shanshan Chen | 2013 | HIT | Junjie Wei | Asso. Prof., Harbin Inst. Tech. Weihai |
| Renhao Cui | 2014 | HIT | Boying Wu | Professor, Harbin Normal U. |
| Sainan Wu | 2017 | HIT | Boying Wu | Lecturer, Nanjing Univ. Posts & Tele. |
| Wenjie Ni | current | HIT | Mingxin Wang | |
| Qingyan Shi | current | TJU | Yongli Song | |

HIT=Harbin Institute of Technology, NNU=Northeast Normal University, TJU=Tongji University

Ph.D students supervised in US (1 current): Yan Wang (College of William and Mary, 2014-)

Serve as Ph.D Thesis external reviewer (4)

| Name | Year | Institute | Adviser |
|-------------------|------|--|------------|
| Rui Hu | 2009 | Memorial University of New Foundland, Canada | Yuan Yuan |
| Rui Peng | 2010 | University of New England, Australia | Yihong Du |
| Jerome Goddard II | 2011 | Mississippi State University, USA | R. Shivaji |
| Sarath Sasi | 2012 | Mississippi State University, USA | R. Shivaji |

Serves as College of William and Mary Ph. D committee member for Xiao Wang (2015), Diane Christine Pelejo (2016).

**Grants,
Fellowships**

All fellowships, grants, contracts awarded by outside agencies. (various travel supports not listed)

Funding in US (as PI, co-PI or senior personnel)

1. *Collaborative Research: Persistence, Stability and Control of Populations in Heterogeneous Networks*, DMS-1715651, National Science Foundation, 2017-2020, \$199,999. (PI: J. Shi, co-PI: L. Shaw) (collaborating with University of Central Florida, \$150,000, PI: Z. Shuai)
2. *EXTREEMS-QED: Computational and Statistical theory and techniques in the study of large data sets*, DMS-1331021, National Science Foundation, 2013-2018, \$879,498. (PI: J. Shi, co-PI: S. Day, C. Li and G. Yu)
3. *Collaborative Research: Multiscale Modeling of Oyster Reef Dynamics*, DMS-1313243, National Science Foundation, 2013-2017, \$151,328. (PI: L. Shaw, co-PI: J. Shi) (collaborating

with Virginia Institute of Marine Science, \$128,672, PI: R. Lipcius, co-PI: J. Shen)

4. *Mathematical Studies of Spatial Bistability in Ecological Systems*, DMS-1022648, National Science Foundation, 2010-2014, \$157,492. (PI: J. Shi)
5. *CSUMS: Theory, Techniques, and Research in Computational Mathematics*, DMS-0703532, National Science Foundation, 2007-2013, \$884,029. (PI: C. Li, co-PIs: S. Day, R. Lewis, D. Lutzer, D. Philips, J. Shi (acting PI for 2010-2012), G. Smith)
6. *UBM: Undergraduate Research in Metapopulation Ecology*, EF-0436318, National Science Foundation, 2004-2009, \$647,000. (PI: D. Cristol, co-PIs: J. Swaddle, S. Schreiber, senior personnel: R. Chambers, T. Killingback, J. Shi.)
7. *Persistence and pattern formation in biological systems*, DMS-0314736, National Science Foundation, 2003-2007, \$108,545. (PI: J. Shi)
8. American Mathematical Society Ky Fan fund (with Chi-Kwong Li), 2003-2004. \$3,500 plus \$4,000 matching fund from College of William and Mary.
9. Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities, 2002. \$5,000.
10. *Theory and Applications of Semilinear Elliptic and Parabolic Equations*, Board of Regents of Louisiana, 1999-2001, \$15,501. (PI: J. Shi)

All summer grants and Faculty Research Assignments received from William and Mary

1. *Data analysis and visualization from the perspective of NSF EXTREEMS-QED grant*. Charles Center Fellowships / May Seminar, College of William and Mary, 2014, \$2,000. (Project coordinators: J. Shi, T. Dey, C.-K. Li, Participants: 10)
2. Faculty Semester Research Assignment, Fall 2012 and Spring 2013.
3. *Bistability in Biological and Chemical Systems*, Summer Research Grant, College of William and Mary, 2008, \$5,000. (PI: J. Shi)
4. Faculty Semester Research Assignment, Spring 2007 and Fall 2007.
5. Junior Research Leave, Spring 2005.
6. *Reaction Diffusion Equations and Applications*, Summer Research Grant, College of William and Mary, 2003, \$4,000. (PI: J. Shi)
7. *Studies of Nonlinear Partial Differential Equations from Fishery Management*, Summer Research Grant, College of William and Mary, 2002, \$4,500. (PI: J. Shi)
8. *Qualitative Studies of Nonlinear Partial Differential Equations*, Summer Research Grant, College of William and Mary, 2001, \$6,000. (PI: J. Shi)
9. *Developing a revised calculus curriculum for business and economics students at W&M*, Charles Center Fellowships / May Seminar, College of William and Mary, 2001, \$2,700. (Project Coordinator: C.-K. Li, Participants: D. Lutzer, J. Shi, B. Robeson, C. Moody)
10. Startup grant, College of Arts and Sciences, College of William and Mary, 2000-2003, \$25,000. (PI: J. Shi)

Funding in China

1. *Quasilinear generalized inverse, Banach manifold and bifurcation analysis of nonlinear Equations*, National Science Foundation of China, 2015-2017, 700,000 Chinese Yuan (about \$114,000 in 2014). (PI: Y. Wang, co-PI: J. Shi, P. Liu)
2. *Bifurcation analysis for reaction-diffusion systems with non-monotone structure*, NSFY-11201101, National Natural Science Foundation of China, 2013-2015, 220,000 Chinese Yuan (about \$35,000 in 2012). (PI: J. Wang, co-PI: J. Shi)
3. *Analytic Bifurcation Theory in Infinite Dimensional Space and Applications in Ecological Models*, NSFY-11101110, National Natural Science Foundation of China, 2012-2014, 230,000 Chinese Yuan (about \$36,000 in 2011). (PI: P. Liu, co-PI: J. Shi, S. Shi)

4. *Nonlinear Generalized Inverse and Solution Set of Nonlinear Equations and Applications*, 11071051, National Natural Science Foundation of China, 2011-2013, 320,000 Chinese Yuan (about \$47,000 in 2010). (PI: Y. Wang, co-PI: J. Ma, J. Shi)
5. *Applications of Singularity Theory, Generalized Inverse in Bifurcation Problems and Nonlinear Analysis*, 10671049, National Natural Science Foundation of China, 2007-2009, 267,000 Chinese Yuan (about \$33,000 in 2006). (PI: Y. Wang, co-PI: J. Ma, J. Shi)
6. *Oversea Chinese Research Fund*, Heilongjiang province, China, 2003-2006. 50,000 Chinese Yuan (about \$6,200). (PI: Y. Wang, co-PI: J. Shi)

REFEREED
PUBLICATIONS
(JOURNAL OR
BOOK CHAPTERS)

Electronic version: Click on URL to access the full text of papers
Or downloadable from <http://jxshix.people.wm.edu/publication.html>
*: PhD student, **: MS student, ***: undergraduate student, ****: high school student at time of preparation of papers.

1. Wenjie Ni, Junping Shi, Mingxin Wang,
Global stability and pattern formation in a nonlocal diffusive Lotka-Volterra competition model. **Journal of Differential Equations**. 264 (2018), 6891–6932.
<https://doi.org/10.1016/j.jde.2018.02.002>
2. Stephen A. Gourley, Xiulan Lai, Junping Shi, Wendi Wang, Yanyu Xiao, Xingfu Zou,
Role of white-tailed deer in geographic spread of the black-legged tick Ixodes scapularis : analysis of a spatially nonlocal model. **Mathematical Biosciences and Engineering (MBE)**. 15 (2018), 1033–1054. <http://dx.doi.org/10.3934/mbe.2018046>
3. Wenjie Zuo, Junping Shi,
Traveling wave solutions of a diffusive ratio-dependent Holling-Tanner system with distributed delay. **Communications on Pure and Applied Analysis**. 17 (2018), 1179–1200.
<http://dx.doi.org/10.3934/cpaa.2018057>
4. Yulian An, Jann-Long Chern, Junping Shi,
Uniqueness of positive solution to a coupled cooperative variational elliptic system on an interval. **Transactions of American Mathematical Society**. 370 (2018), 5209–5243.
<https://doi.org/10.1090/tran/7207>
5. Jimin Zhang, Junping Shi, Xiaoyuan Chang,
A mathematical model of algae growth in a pelagic-benthic coupled shallow aquatic ecosystem. **Journal of Mathematical Biology**. 76 (2018), 1159–1193.
<https://doi.org/10.1007/s00285-017-1168-8>
6. Yuhua Li, Fuyi Li, Junping Shi,
Ground states of nonlinear Schrödinger equation on star metric graphs. **Journal of Mathematical Analysis and Applications**. 459 (2018), 661–685.
<https://doi.org/10.1016/j.jmaa.2017.10.069>
7. Ping Liu, Junping Shi,
Bifurcation of Positive Solutions to Scalar Reaction-Diffusion Equations with Nonlinear Boundary Condition. **Journal of Differential Equations**. 264 (2018), 425–454.
<https://doi.org/10.1016/j.jde.2017.09.014>
8. Mayee Chen****, Junping Shi,
Effect of rotational grazing on plant and animal production. **Mathematical Biosciences and Engineering (MBE)** 15 (2018), 393–406.
<http://dx.doi.org/10.3934/mbe.2018017>
9. Jun Wang, Junping Shi,
Standing waves for a coupled nonlinear Hartree equations with nonlocal interaction. **Calculus of Variations and Partial Differential Equations**. 56 (2017), 168 (page 1–36).
<https://doi.org/10.1007/s00526-017-1268-8>

10. Qingyan Shi*, Junping Shi, Yongli Song,
Hopf bifurcation in a reaction-diffusion equation with distributed delay and Dirichlet boundary condition. **Journal of Differential Equations.** 263 (2017), 6537–6575.
<https://doi.org/10.1016/j.jde.2017.07.024>
11. Yuhua Li, Fuyi Li, Junping Shi,
Existence and multiplicity of positive solutions to Schrodinger-Poisson type systems with critical nonlocal term. **Calculus of Variations and Partial Differential Equations.** 56 (2017), 134 (page 1–17). <https://doi.org/10.1007/s00526-017-1229-2>
12. Xiaoli Wang, Junping Shi, Guohong Zhang,
Interaction of water and plants: rich dynamics in a simple model. **Discrete and Continuous Dynamical Systems B.** 22 (2017), 2971–3006.
<http://dx.doi.org/10.3934/dcdsb.2017159>
13. Zhanping Liang, Fuyi Li, Junping Shi,
Positive solutions of Kirchhoff type nonlocal elliptic equation: a bifurcation approach. **Proceedings of Royal Society of Edinburgh Section A.** 147 (2017), 875–894.
<https://doi.org/10.1017/S0308210516000378>
14. Deqiong Ding, Junping Shi, Yan Wang*,
Bistability in a model of grassland and forest transition. **Journal of Mathematical Analysis and Applications.** 451 (2017), 1165–1178.
<http://dx.doi.org/10.1016/j.jmaa.2017.02.062>
15. Xiangping Yan, Junping Shi,
Stability switches in a Logistic population model with mixed instantaneous and delayed density dependence. **Journal of Dynamics and Differential Equations.** 29 (2017), 113–130.
<http://dx.doi.org/10.1007/s10884-015-9432-3>
16. Renhao Cui, Haomiao Li***, Linfeng Mei, Junping Shi,
Effect of harvesting quota and protection zone in a reaction-diffusion model arising from fishery management. **Discrete and Continuous Dynamical Systems B.** 22 (2017), 791–807.
<http://dx.doi.org/10.3934/dcdsb.2017039>
17. Sainan Wu*, Junping Shi, Boying Wu,
Global existence of solutions to a quasilinear attraction-repulsion chemotaxis model with growth. **Communications on Pure and Applied Analysis.** 16 (2017), 1037–1058.
<http://dx.doi.org/10.3934/cpaa.2017050>
18. Jitao Sun, Qing-guo Wang, Junping Shi, Fangfang Jiang*,
On the existence and uniqueness of a limit cycle for a Liénard system with a discontinuity line. **Communications on Pure and Applied Analysis.** 15, (2016), 2509–2526.
<http://dx.doi.org/10.3934/cpaa.2016047>
19. Junping Shi, Ratnasinham Shivaji,
Uniqueness of positive solutions to cooperative Hamiltonian elliptic systems. **Electronic Journal of Differential Equations Conference.** 23, (2016), 155–173.
<http://ejde.math.txstate.edu/conf-proc/23/s2/abstr.html>
20. Sainan Wu*, Junping Shi, Boying Wu,
Global existence of solutions to a diffusive predator-prey model with prey-taxis. **Journal of Differential Equations.** 260, (2016), 5847–5874.
<http://dx.doi.org/10.1016/j.jde.2015.12.024>
21. Jinfeng Wang, Junjie Wei, Junping Shi,
Global bifurcation analysis and pattern formation in homogeneous diffusive predator-prey systems. **Journal of Differential Equations.** 260, (2016), 3495–3523.
<http://dx.doi.org/10.1016/j.jde.2015.10.036>
22. Yulian An, Chan-Gyun Kim, Junping Shi,
Exact Multiplicity of Positive Solutions for a p -Laplacian Equation with Positive Convex Non-linearity. **Journal of Differential Equations.** 260, (2016), 2091–2118.
<http://dx.doi.org/10.1016/j.jde.2015.09.058>

23. Jun Wang, Junping Shi,
Standing waves of a weakly coupled Schrodinger system with distinct potential functions.
Journal of Differential Equations. 260, (2016), 1830–1864.
<http://dx.doi.org/10.1016/j.jde.2015.09.052>
24. Chan-Gyun Kim, Zhanping Liang, Junping Shi,
Existence of positive solutions to a Laplace equation with nonlinear boundary condition.
Zeitschrift fuer Angewandte Mathematik und Physik (ZAMP). 66 (2015), 3061–3083.
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Multi-spike stationary solution of Cahn- Hilliard equation and instability.
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CHAPTERS
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1. Junping Shi,
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**Invited
Conference Talks**

1. Special Session on Analysis of Mathematical Modeling Arising from Population Biology, The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Taipei, Taiwan, July 5-9, 2018. (30 min invited talk)
2. Twelfth International Conference on Recent Advances in Applied Dynamical Systems, Chongqing, China, June 8-10, 2018. (30 min invited talk)
3. The international workshop on nonlinear partial differential equations and the applications in geometry and biology, Shaanxi Normal University, Xi'an, China, June 1-4, 2018. (45 min invited talk)
4. 2018 NCTS Workshop on Mathematical Biology, National Tsing Hua University, Hsinchu, Taiwan, May 28-June 1, 2018. (45 min invited talk)
5. International Conference on Variational Methods (ICVAM-4), Chern Institute of Mathematics, Nankai University, Tianjin, China, May 14-19, 2018. (45 min invited talk)
6. Frontier of Mathematical Biology: Modeling, Computation and Analysis, University of Central Florida, Orlando, FL, May 2-4, 2018. (30 min invited talk)
7. Special Session on Nonlinear Reaction-Diffusion Equations and Their Applications, AMS Spring Eastern Sectional Meeting, Northeastern University, Boston, MA, April 21-22, 2018. (30 min invited talk)
8. Special Session on Recent Advances in Mathematical Biology, AMS Spring Southeastern Sectional Meeting, Vanderbilt University, Nashville, TN, April 14-15, 2018. (30 min invited talk)
9. Mini-symposium on PDE models in population biology, SIAM-SEAS 2018, UNC Chapel Hill, North Carolina, March 9-11, 2018. (30 min invited talk)
10. Special Session on Mathematical modeling, analysis and applications in population biology, 2018 Joint Mathematics Meetings, San Diego, CA, January 10-13, 2018. (30 min invited talk)
11. Special Session on Dynamical systems with applications to mathematical biology, 2018 Joint Mathematics Meetings, San Diego, CA, January 10-13, 2018. (30 min invited talk)
12. ICMA VI: Sixth International Conference on Mathematical Modeling and Analysis of Populations in Biological Systems, University of Arizona, Tucson, AZ, October 20-22, 2017. (30 min invited talk)
13. Special Session on Nonlinear Partial Differential Equations Arising from Life Science, Fall Eastern Sectional Meeting, State University of New York at Buffalo, Buffalo, NY, September 16-17, 2017. (30 min invited talk)
14. Mini-symposium on Patterns and dynamics in nonlinear partial differential equation, Equadiff 2017, Bratislava, Slovakia, July 24-28, 2017. (30 min invited talk)
15. Mini-symposium on Cross-diffusive systems, Equadiff 2017, Bratislava, Slovakia, July 24-28, 2017. (30 min invited talk)

16. International Conference on Topological Nonlinear Analysis, Guangzhou University, Guangzhou, China, June 12-15, 2017. (40 min invited talk)
17. The Eleventh International Conference on Recent Advances in Applied Dynamical Systems, Xi'an Jiaotong University, Xi'an, China, June 9-12, 2017. (40 min invited talk)
18. International conference on infinite dimensional dynamical systems, Sichuan University, Chengdu, China, May 29-June 2, 2017. (50 min invited talk)
19. International Conference in Nonlinear Analysis, Yunnan Normal University, Kunming, China, May 25-27, 2017. (40 min invited talk)
20. Workshop on generalized inverse and space structure and applications, Harbin Normal University, Harbin, China, May 12-14, 2017. (40 min invited talk)
21. Special Session on Differential Equations and Their Applications to Biology, AMS Spring Central Sectional Meeting at Indiana University, Bloomington, IN, April 1-2, 2017. (30 min invited talk)
22. Special Session on Recent Advances in Mathematical Biology, 2017 Joint Mathematics Meetings, Atlanta, GA, January 4-7, 2017. (30 min invited talk)
23. Workshop on Mathematical Analysis, Tokyo Institute of Technology, Tokyo, Japan, December 13, 2016. (50 minute plenary talk)
24. Special Session on Nonlinear Boundary Value Problems, AMS Fall Southeastern Sectional Meeting at North Carolina State University, Raleigh, NC, November 12-13, 2016. (30 min invited talk)
25. Summer short course in Harbin Institute of Technology, July 21-26, 2016. (16 hour short course)
26. Special session on Dissipative Systems and Applications, The 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA, July 1-4, 2016. (30 min invited talk)
27. Special session on Recent advances in dynamical systems with applications to ecology and epidemiology, The 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Orlando, Florida, USA, July 1-4, 2016. (30 min invited talk)
28. Tenth International Conference on Recent Advances in Applied Dynamical Systems, Jiangsu Normal University, Xuzhou, China, June 10-12, 2016. (40 minute invited talk)
29. International Conference on Reaction-Diffusion Equations and their Applications to the Life, Social and Physical Sciences, Institute of Mathematical Sciences (IMS) at the Renmin University of China, Beijing, China, May 26-29, 2016. (50 minute plenary talk)
30. Workshop in Application of Mathematics in Economics and Finance, Harbin Normal University, Harbin, China, January 13-14, 2016. (50 minute invited talk)
31. Special Session on Random and Complex Dynamics of Reaction-Diffusion Systems, 2016 Joint Mathematics Meetings, Seattle, WA, January 6-9, 2016. (30 min invited talk)
32. Special Session on Recent advances in dynamical systems and mathematical biology, 2016 Joint Mathematics Meetings, Seattle, WA, January 6-9, 2016. (30 min invited talk)
33. Workshop on Shapes and other properties of solutions of PDEs, Research Institute for Mathematical Sciences (RIMS), Kyoto University, Kyoto, Japan, November 11-13, 2015. (50 min invited talk)
34. The 5th International Conference on Mathematical Modeling and Analysis of Populations in Biological Systems, University of Western Ontario, London, Ontario, Canada, October 2-4, 2015. (30 min invited talk)
35. Workshop on nonlinear and global analysis, Harbin Normal University, Harbin, China, August 19-20, 2015. (30 min invited talk)
36. The Second International Workshop on Biomathematics Modelling and Its Dynamical Analysis, Heilongjiang University, Harbin, China, May 16-17, 2015. (30 min invited talk)

37. Mini-symposium on Recent Developments in the Modeling, Simulation and Analysis of Mathematical Models Arising from Biology, 8th International Congress on Industrial and Applied Mathematics (ICIAM), Beijing, China, August 11-14, 2015. (30 min invited talk)
38. Workshop on Mathematical Modeling in Life Sciences, Harbin Normal University, Harbin, China, August 1-2, 2015. (50 min invited talk)
39. Differential Equations and Applications to Biological Models, Tongji University, Shanghai, China, May 25-27, 2015. (Two 50 min invited talks)
40. Special Session on Advances in the Theory and Applications of Dynamical Systems, AMS Spring Southeastern Sectional Meeting, University of Alabama in Huntsville, Huntsville, AL, March 27-29, 2015. (30 min invited talk)
41. Special Session on Spatial Evolutionary Models and Biological Invasions, AMS Spring Eastern Sectional Meeting, Georgetown University, Washington, DC, March 7-8, 2015. (30 min invited talk)
42. Special Session on Theory and Application of Reaction Diffusion Models, 2015 Joint Mathematics Meetings, San Antonio, TX, January 10-13, 2015. (30 min invited talk)
43. Special Session on Applications of Dynamical Systems to Biological Model, 2015 Joint Mathematics Meetings, San Antonio, TX, January 10-13, 2015. (30 min invited talk)
44. Workshop on Mathematical Biology and Nonlinear Analysis, and celebration for Steve Cantrell, University of Miami, Miami, FL, December 19-21, 2014. (30 min invited talk)
45. AMS Fall Southeastern Section Meeting, University of North Carolina at Greensboro, Greensboro, NC, November 8-9, 2014. (30 min invited talk)
46. 10th Mississippi State Conference on Differential Equations and Computational Simulations, Mississippi State University, Starkville, MS, October 23-25, 2014. (50 min plenary talk)
47. 13th National Conference in Functional Differential Equations, Qinghai Minority University, Xining, China, July 29-31, 2014. (40 min invited talk)
48. Workshop in Functional Differential Equations, Harbin Institute of Technology at Weihai, Weihai, China, July 23-27, 2014. (50 min invited talk)
49. 18th China National Conference on Nonlinear Functional Analysis, Harbin, China, July 14-16, 2014. (50 min plenary talk)
50. Special session on Qualitative Analysis of Reaction Diffusion Systems, 10th AIMS International Conference on Dynamical Systems, Differential Equations, and Applications, Madrid, Spain, July 7-11, 2014. (30 min invited talk)
51. Special session on Nonlinear Elliptic and Parabolic Problems, 10th AIMS International Conference on Dynamical Systems, Differential Equations, and Applications, Madrid, Spain, July 7-11, 2014. (30 min invited talk)
52. Eighth International Conference on Recent Advances in Applied Dynamical Systems, Guilin University of Electronic Technology, Guilin, China, June 2-4, 2014. (40 min invited talk)
53. NCTS International Conference of Nonlinear Dynamics with Application to Biology, NCTS, National Tsing Hua University, Hsinchu, Taiwan, May 28-30, 2014. (40 min invited talk)
54. 2014 International Symposium on Mathematical Biology, Guangzhou, China, May 24-28, 2014. (50 min invited talk)
55. Minisymposium on Recent Advances in Mathematical Biology, 38th Annual SIAM Southeastern Atlantic Section Conference, Florida Institute of Technology, Melbourne, Florida, March 28-30, 2014.
56. Special session on Reaction Diffusion Equations and Applications, 2014 Joint Mathematics Meetings, Baltimore, MD, January 15-18, 2014. (30 min invited talk)
57. International Workshop on New Mathematical Developments Arising from Ecology, Epidemiology and Environmental Science, Beijing International Center for Mathematical Research, Peking University, Beijing, China, October 17-20, 2013. (45 min invited talk)

58. Special session on Recent Advances in Mathematical Epidemiology and Ecology, The Fourth International Conference on Mathematical Modeling and Analysis of Populations in Biological Systems (ICMA IV), Texas Tech University, Lubbock, TX, October 4-6, 2013. (30 min invited talk)
59. The Seventh International Conference on Recent Advances in Applied Dynamical Systems, Linyi, China, June 8-10, 2013. (40 min invited talk)
60. Special session on pattern Formation in Biology, Fourth Conference on Computational and Mathematical Population Dynamics (CMPD4), Taiyuan, China, May 29–June 2, 2013. (30 min invited talk)
61. Special session on Understanding Planet Earth via Reaction Diffusion Equations, 2013 Joint Mathematics Meetings, San Diego, CA, January 9–12, 2013. (30 min invited talk)
62. Special session on Recent progress in nonlinear analysis and PDE's arising from dispersal models, Everything Disperses to Miami: The Role of Movement and Dispersal in Ecology, Epidemiology and Environmental Science, University of Miami, Miami, FL, December 14–16, 2012. (30 min invited talk)
63. International Conference in Nonlinear Analysis, Xuzhou Normal University, Xuzhou, China, October 9–13, 2012. (30 min invited talk)
64. Special Session on Nonlinear Elliptic and Parabolic Problems in Mathematical Sciences, 9th AIMS International Conference on Dynamical Systems, Differential Equations, and Applications, Orlando, FL, July 1–5, 2012. (30 min invited talk)
65. Special Session on Reaction Diffusion Equations and Applications, 9th AIMS International Conference on Dynamical Systems, Differential Equations, and Applications, Orlando, FL, July 1–5, 2012. (30 min invited talk)
66. The Sixth International Conference on Recent Advances in Applied Dynamical Systems, Guangzhou University, Guangzhou, China, June 25-27, 2012. (40 min invited talk)
67. Workshop on PDE Problems in Mathematical Biology and Physics, Hong Kong Polytechnic University, HongKong, China, June 22-23, 2012. (1 hour invited talk)
68. Minisymposium on Modeling Complex Biological Systems: Theoretical and Computational Studies, 36th Annual SIAM Southeastern Atlantic Section Conference, University of Alabama, Huntsville, AL, March 24-25, 2012. (30 min invited talk)
69. Special Session on Recent Advances in Mathematical Biology, Ecology, and Epidemiology, 2012 Joint Mathematics Meetings, Boston, MA, January 4–7, 2012. (30 min invited talk)
70. Special Session on Nonlinear Boundary Value Problems, 2011 AMS Fall Southeastern Sectional Meeting, Wake Forest University, Winston-Salem, North Carolina, USA, September 24–25, 2011. (30 min invited talk)
71. 8th East China Partial Differential Equations Conference, Xi'an, China, July 11–14, 2011. (45 min invited talk)
72. Special Session on Nonlinear PDEs and Variational Methods, 2011 AMS Spring Western Section Meeting, Las Vegas, Nevada, USA, April 30–May 1, 2011. (30 min invited talk)
73. Minisymposium on Simulation and analysis in biological systems, 35th SIAM Southeastern Atlantic Section Conference, Charlotte, North Carolina, USA, March 26–27, 2011. (20 min invited talk)
74. Special session on Structured Models in Ecology, Evolution, and Epidemiology: Periodicity, Extinction, and Chaos, 2011 Joint Mathematics Meeting, New Orleans, Louisiana, USA, Jan 6–9, 2011. (20 min invited talk)
75. Special session on Analysis of Reaction-Diffusion Models, 2011 Joint Mathematics Meeting, New Orleans, Louisiana, USA, Jan 6–9, 2011. (20 min invited talk)
76. A PDE Day in NCTS, NCTS, National Tsing Hua University, Hsinchu, Taiwan, Dec 20, 2010. (2 one-hour invited talks)

77. NCTS Workshop on PDE Models of Biological Process, NCTS, National Tsing Hua University, Hsinchu, Taiwan, Dec 13–17, 2010. (30 min invited talk)
78. 2010 Mathematical Conference and Annual Meeting of the Taiwan Mathematical Society, Changhua Normal University, Changhua, Taiwan, Dec 11–12, 2010. (45 min invited talk)
79. Special session on Differential Equations and Applications to Physics and Biology, AMS South-eastern Section Meeting, Richmond, Virginia, USA, Nov 6–7, 2010. (20 min invited talk)
80. International conference on Functional Analysis and Applications, Harbin Institute of Technology, Harbin, China, July 25–28, 2010. (1-hour invited talk)
81. 7th East China Partial Differential Equations Conference, Central China Normal University, Wuhan, China, July 6–9, 2010. (45 min invited talk)
82. Fourth International Conference on Recent Advances in Applied Dynamical Systems, Jinhua, China, June 16–20, 2010. (30 min invited talk)
83. International Conference on Variational and Topological Methods in Nonlinear Analysis, Beijing, China, May 20–22, 2010. (45 min invited talk)
84. International Workshop on Reaction-Diffusion Models and Mathematical Biology, Harbin, China, June 24–27, 2009. (45 min invited talk)
85. International Conference on Nonlinear and Stochastic Dynamics, Sichuan university, Chengdu, China, June 1–5, 2009. (45 min invited talk)
86. Interdisciplinary Conference on Applied Analysis and Mathematics, NCTS, Tsing Hua University, Hsinchu, Taiwan, May 13, 2009. (30 min invited talk)
87. AMS southeastern sectional meeting, Special Session on Dynamics and Applications of Differential Equations, Huntsville, AL, October 26, 2008. (30 min invited talk)
88. *Lectures on bifurcation in reaction-diffusion models from biology.* Mathematical Applications in Ecology and Evolution Workshop, Center for Computational Sciences, Mississippi State University, August 4–6, 2008. (three 1-hour invited lectures, one of two main speakers)
<http://www.ccs.msstate.edu/conferences/Bio-Conference-Collage.jpg>
89. International Conference on Nonlinear Partial Differential Equations and Geometric Analysis, Harbin, China, June 30–July 4, 2008. (45 min invited talk)
90. 7th AIMS International Conference on Dynamical Systems and Differential Equations, Special session on Differential Equations of Mixed Type Arising in Engineering, Biology and Ecology, Arlington, Texas, May 18–21, 2008 (30 min invited talk)
91. 7th AIMS International Conference on Dynamical Systems and Differential Equations, Special session on Nonlinear Evolution Equations and Related Topics, Arlington, Texas, May 18–21, 2008 (30 min invited talk)
92. 7th AIMS International Conference on Dynamical Systems and Differential Equations, Special session on Pattern Formation in Biology and Ecology: from Interfaces to Meta-solutions, Arlington, Texas, May 18–21, 2008 (30 min invited talk)
93. AMS southeastern sectional meeting, Special Session on Mathematical Modeling in Biology, Baton Rouge, LA, March 29, 2008. (30 min invited talk)
94. Workshop on Variational Methods, Capital Normal University, Beijing, China, December 28–29, 2007. (45 min invited talk)
95. PDE Day in Taida Institute of Mathematical Sciences, National Taiwan University, Taipei, Taiwan, November 28, 2007 (1-hour invited talk)
96. International Workshop on Banach Space, Operator Theory and Applications in Nonlinear Analysis, Harbin Normal University, Harbin, Heilongjiang, China, July 25–27, 2007 (50 min invited talk)
97. The Second International Conference on Recent Advance in Applied Dynamical Systems, Zhejiang Normal University, Jinhua, Zhejiang, China, June 4–8, 2007 (40 min invited talk)

98. The Fourth International Conference on Mathematical Biology, Wuyi Mountain, Fujian, China, May 29-June 1, 2007 (30 min invited talk)
99. AMS eastern sectional meeting, Special Session on Nonlinear Elliptic and Parabolic Equations, Storrs, CT, October 29, 2006. (20 min invited talk)
100. AMS western sectional meeting, Special Session on Nonlinear Differential Equations: Methods & Applications, Salt Lake City, UT, October 7, 2006. (20 min invited talk)
101. Workshop on Analysis and PDE, Harbin Normal University, July 22, 2006. (Two 1-hour invited talk)
102. Recent Developments In Differential Equations and Applications, Guangzhou University, Guangzhou, China, July 17-21, 2006. (45 min invited talk)
103. 6th AIMS International Conference on Dynamical Systems and Differential Equations, Special session on Modeling and Analysis of Predators-Preys Systems: Stability, Bifurcation, Chaos and Complexity, Poitiers, France, June 25-28, 2006 (30 min invited talk)
104. 6th AIMS Internatinal Conference on Dynamical Systems and Differential Equations, Special session on Nonlinear Parabolic and Elliptic PDEs and Applications, Poitiers, France, June 25-28, 2006 (30 min invited talk)
105. International Conference on Nonlinear and Stochastic Dynamics, Sichuan University, Chengdu, China, June 5-9, 2006 (45 min invited talk)
106. International Conference on Dynamical Systems: Bifurcation, Application and Computation, Shanghai Normal University, Shanghai, China, June 2-5, 2006 (45 min invited talk)
107. International Conference on Nonlinear Partial Differential Equations, Qufu Normal University, Rizhao, Shandong, China, July 11-16, 2005. (45 min invited talk)
108. HuaZhong International Conference on Nonlinear Partial Differential Equations, Zhangjiajie, Hunan, China, July 9-12, 2005. (45 min invited talk)
109. First International Conference on Recent Advances in Bifurcation Theory and Applications of Dynamical System, Zhejiang Normal University, Jinhua, Zhejiang, China, June 8-12, 2005. (45 min invited talk)
110. International Conference of Nonlinear Evolution Equations and Infinite Dimensional Dynamical Systems, Nanjing Normal University, Nanjing, Jiangsu, China, June 2-6, 2005. (45 min invited talk)
111. Workshop on Mathematical and Numerical Analysis on Nonlinear Phenomena, Tokyo Metropolitan University, Tokyo, Japan, February 7, 2005. (Two 1-hour invited talks, only invited foreign speaker)
112. Workshop on Spatial Ecology: The Interplay between Theory and Data, Institute of Theoretical and Mathematical Ecology (ITME), University of Miami, Coral Gables, FL, January 7-10th, 2005. (one hour plenary talk)
<http://www.math.miami.edu/anno/spatial/participants.htm>
113. AMS-SIAM Special Session on Reaction Diffusion Equations and Applications, Joint Mathematics Meetings, Atlanta, GA, January 5-8th, 2005. (30 min invited talk)
114. International Conference On Nonlinear Dynamics And Evolution Equations, Memorial University of Newfoundland , St. John's, Newfoundland and Labrador, Canada, June 6-10th, 2004. (30 min invited talk)
115. Special session on Recent Developments on Nonlinear Elliptic Equations and Variational Problems, AIMS' Fifth International Conference on Dynamical Systems and Differential Equations California State Polytechnic University, Pomona, CA, June 16-19th, 2004. (30 min invited talk)
116. Special session on PDE with Application in Biology, AIMS' Fifth International Conference on Dynamical Systems and Differential Equations California State Polytechnic University, Pomona, CA, June 16-19th, 2004. (30 min invited talk)

117. Workshop on Nonlinear Analysis - Hamiltonian Systems and Celestial Mechanics, Nankai Institute of Mathematics, Nankai University, Tianjin, China, June 9-13th, 2004. (1-hour invited talk)
118. International Workshop of bifurcation theory and applications, Shanghai Jiaotong University, Shanghai, China, May 23-26th, 2004. (30 min invited talk)
119. Workshop on Defects and their Dynamics, Banff International Research Station, Banff, Canada, August 9-16th, 2003. (1-hour invited talk)
120. Program on Nonlinear Functional Analysis and PDE, Morningside Center, Institute of Mathematics, Chinese Academy of Sciences, Beijing, China, July 4th, 2003. (Two 1-hour invited talks)
121. Workshop: New Perspective of Nonlinear Partial Differential Equations, Ryukoku University, Otsu, Shiga, Japan, June 23-25th, 2003. (one hour plenary talk), One of two invited foreign speakers.
122. Special Session on Nonlinear Elliptic Partial Differential Equations, AMS Sectional Meeting, Salt Lake City, UT, October 26th, 2002. (30 min invited talk)
123. International conference of Nonlinear Functional Analysis, (satellite conference of ICM 2002) Shanxi University, Taiyuan, Shanxi, China, August 14-18th, 2002. (45 min invited talk)
124. Dynamical Systems and Differential Equations Conference, University of North Carolina at Wilmington, NC, May 24-27th, 2002. (30 min invited talk)
125. Special session of Nonlinear Elliptic Equations, AMS Annual joint meeting, San Diego, CA, January 5-10th, 2002. (30 min invited talk)
126. Workshops in Nonlinear PDE, PIMS, University of British Columbia, Vancouver, British Columbia, Canada, July 11-27th, 2001. (30 min invited talk)
127. International Conference in Differential Equations and Dynamical Systems, Lhasa, Tibet, China, July 2-7th, 2001. (45 min invited talk)
128. Special Session of Singular and Degenerate Nonlinear Elliptic Boundary Value Problems, AMS Sectional Meeting, Hoboken, NJ, April 28th, 2001. (30 min invited talk)
129. Special Session of Analysis and Applications of Nonlinear PDEs, AMS Sectional Meeting, Las Vegas, NV, April 22nd, 2001. (30 min invited talk)
130. Special session of PDE Models in Population Biology and Epidemiology, AMS Joint meeting, New Orleans, LA, January 11th, 2001. (30 min invited talk)
131. Minisymposium on Transitions and Reaction Diffusion Equations, SIAM Pacific Rim Dynamical Systems Conference, Maui, HI, August 11th, 2000. (30 min invited talk)
132. Minisymposium on Spike Layer in Reaction-Diffusion Systems, SIAM Pacific Rim Dynamical Systems Conference, Maui, HI, August 11th, 2000. (30 min invited talk)
133. Special session of Nonlinear Differential Equations and Their Applications, AMS sectional meeting, University of Louisiana, Lafayette, LA, April, 2000. (30 min invited talk)
134. Special session of Nonlinear Eigenvalue Problems and Applications, AMS Joint meeting, Washington, DC, January, 2000. (30 min invited talk)
135. Special session of Nonlinear PDE, AMS sectional meeting, Las Vegas, NV, April, 1999. (30 min invited talk)
136. Conference honoring Professor Alan Lazer, University of Miami, Coral Gables, FL, January, 1999. (30 min invited talk)
137. Special session of Nonlinear Elliptic and Parabolic Equations, International Conference of Differential Equations and Dynamical Systems, Southwest Missouri State University, Springfield, MO, July 1996. (30 min invited talk)
138. Utah Nonlinear Analysis Conference, Brigham Young University, Provo, UT, January 1996. (45 min invited talk)

**Invited
Colloquium Talks**

1. University of California at Riverside, Riverside, CA, October 18, 2017.
2. California State University, Northridge, CA, October 17, 2017.
3. South China University of Technology, June 15, 2017.
4. Southern China Normal University, June 15, 2017.
5. Shannxi Normal University, June 11, 2017.
6. Renmin University of China, May 21, May 22, 2017. (2 talks)
7. University of Alberta, Edmonton, Canada, October 3, 2016.
8. Heilongjiang University, Harbin, China, China, July 24, 2016; May 15, 2017.
9. Central China Normal University, Wuhan, China, May 22, 2016.
10. Jiangsu University, Zhenjiang, China, June 3, 2016.
11. Southeast University, Nanjing, China, June 4, 2016.
12. Nanjing University of Aeronautics & Astronautics, China, June 4, 2016.
13. University of Tennessee at Chattanooga, Chattanooga, TN, February 19, 2016.
14. Harbin Institute of Technology, Weihai, July 27, 2015.
15. John Hopkins University, Baltimore, MD, April 6, 2015.
16. University of South Florida, Tampa, FL, February 6, 2015.
17. Ohio State University, Columbus, OH, October 15, 2014; March 8, 2017.
18. Beijing University of Chemical Engineering, Beijing, August 14, 2014.
19. Northwest Normal University, Lanzhou, China, August 5, 2014.
20. Lanzhou University, Lanzhou, China, August 3, 2014. (2 talks)
21. Lanzhou Institute of Technology, Lanzhou, China, August 3, 2014.
22. Qinghai Normal University, Xining, China, July 30, 2014.
23. National Defense Technology University, Changsha, China, June 7, 2014. (2 talks)
24. Central South University, Changsha, China, June 6, 2014.
25. Southwest University, Chongqing, China, July 14, 2013.
26. Hong Kong Polytechnic University, Hong Kong, China, May 22, 2014; July 3, 2013. (two talks)
27. Institute of Mathematics, Academic Sinica, Taiwan, March 28, 2013.
28. National Center for Theoretical Sciences, National Tsing-Hua University, Hsinchu, Taiwan, March 8, March 29 and May 3, 2013. (3 talks)
29. Virginia Commonwealth University, Richmond, VA, Jan. 18, 2013.
30. North China Electric Power University, Beijing, China, Nov. 5, 2012.
31. Sichuan University, Chengdu, China, Nov. 2, 2012.
32. University of Electronic Science and Technology of China, Chengdu, China, Nov. 1, 2012; June 1, 2017. (4 talks)
33. Harbin Engineering University, Harbin, China, October 18, 2012; July 18, 2014; July 29, 2015; May 17, 2016; May 16, 2017. (6 talks)
34. University of Science and Technology of China, Hefei, China, August 7, 2014; October 15, 2012. (2 talks)
35. Shandong University, Jinan, China, October 8, 2012.
36. University of Western Ontario, London, Ontario, Canada, August 21, 2012.
37. Summer short course on bifurcation theory and its applications, University of New Brunswick, Fredericton, Canada, August 13-17, 2012. (6 talks, 15 hours)
38. North University of China, Taiyuan, China, July 22, 2012.

39. Guangdong University of Technology, Guangzhou, China, June 26, 2012.
40. Old Dominion University, Norfolk, VA, March 3, 2012; January 19, 2016. (2 talks)
41. Virginia State University, Petersburg, VA, October 31, 2014; February 17, 2012. (2 talks)
42. 2011 Nonlinear Reaction-Diffusion Equations Summer School, Shanxi University, Taiyuan, Shanxi, China, July 17-27, 2011. (5 talks, 10 hours)
43. Providence University, TaiChung, Taiwan, December 10, 2010. (2 talks)
44. Jilin University, Changchun, China, July 28 and 29, 2010. (3 talks)
45. Taiyuan University of Science and Technology, Taiyuan, China, July 11, 2010.
46. Shanxi University, Taiyuan, China, May 18, May 19, 2017; May 13, 2015; August 18 and 19, 2014; June 3, 2013; October 29 and 30, 2012; June 28 and July 21, 2012; May 11, 2011; July 10 and 11, 2010. (13 talks)
47. Tongji University, Shanghai, China, June 7, 2017; July 28, 2016; July 7 and July 8, 2013; May 14, 2011; June 30 and July 5, 2010. (8 talks)
48. Shanghai Normal University, Shanghai, China, July 1, 2010.
49. Shanghai Jiaotong University, Shanghai, China, June 30, 2010.
50. Yunnan University, Kunming, Yunnan, China, June 25, 2010.
51. Yunnan Normal University, Kunming, Yunnan, China, June 24, 2010.
52. Kunming University of Science and Technology, Kunming, Yunnan, China, June 24, 2010.
53. Guilin University of Electrical Technology, Guilin, Guangxi, China, June 21, 2010.
54. Zhejiang Normal University, Jinhua, Zhejiang, China, June 14, 2010; May 28, 2007. (4 talks)
55. Harbin Institute of Technology, Harbin, Heilongjiang, China, May 17, 2017; January 16, July 22, July 25, 2016; May 16, 2015; July 17, 2014; October 17, 2012; May 21, 2011; June 4 and June 13, 2010; January 2 and June 21, 2008; April 20 and April 27, 2007; June 11, 2006; June 19, 2005; July 2, 2003. (15 talks)
56. Harbin Normal University, Harbin, Heilongjiang, China, May 19, 2016; October 23, 2012; May 23, 2011; May 31, 2010; May 16, 2007; June 16, 2005; May 18 and 20, 2004; June 30 and July 1, 2003. (10 talks)
57. Tsinghua University, Beijing China, Nov. 6, 2012; May 27, 2010; May 26, 2005; May 31, 2001. (4 talks)
58. University of Wyoming, Laramie, WY, March 11, 2010.
59. Memorial University of Newfoundland, Canada, December 14, 2009.
60. National Central University, Chungli, Taiwan, December 9, 2010; May 14, 2009; December 6, 2007. (3 talks)
61. University of Alabama at Birmingham, Birmingham, AL, October 24, 2008.
62. Chinese Academy of Sciences, Beijing, China, July 17, 2008; December 27, 2007; May 27, 2005; May 8, 2004; July 21, 2002. (5 talks)
63. Capital Normal University, Beijing, China, June 12, 2008; April 15, 2007; May 30, 2005. (3 talks)
64. George Washington University, February 28th, 2008.
65. Beijing Normal University, Beijing, China, December 28, 2007.
66. National Chiao Tung University, Hsinchu, Taiwan, November 27, 2007; April 19th, 2005. (2 talks)
67. National Taiwan University, Taipei, Taiwan, September 20th, 2007.
68. National Tsing Hua University, Hsinchu, Taiwan, September 17th, 2007; April 18th and 25th, 2005. (3 talks)

69. *Degree Theory and Bifurcation theory for Fredholm operators, and Reaction-diffusion systems*, 12-hour Lecture series, Harbin Normal University, Harbin, Heilongjiang, China, May 7-19, 2007.
70. *Bifurcation theory in Banach space and application to semilinear equations* 14-hour Lecture series, Harbin Institute of Technology, Harbin, Heilongjiang, China, April 17-29, 2007.
71. Georgia Institute of Technology, Atlanta, GA, March 6, 2006.
72. Beihang University, Beijing, China, July 1, 2005.
73. Yangzhou University, Yangzhou, Jiangsu, China, June 7 and June 8, 2005. (2 talks)
74. Taiwan Normal University, Taipei, Taiwan, April 20th, 2005.
75. University of New England, Armidale, NSW, Australia, March 17th, 2005.
76. *Lectures on solution set of semilinear elliptic equations*, 12 hour lecture series for graduate students, Tokyo Metropolitan University, Tokyo, Japan, Feb. 7-18, 2005.
77. Rensselaer Polytechnic Institute, Troy, NY, January 24, 2005.
78. East China Normal University, Shanghai, China, May 26 and 28, 2004. (2 talks)
79. Mississippi State University, Miss State, MS, March 9, 2004; April 1999. (2 talks)
80. Lecture series (12 hours), Harbin Normal University, Harbin, Heilongjiang, China, July 30th-August 5th, 2002.
81. University of Virginia, Charlottesville, VA, September 20 and 21, 2001. (two talks)
82. University of Texas at San Antonio, San Antonio, TX, September 7th, 2001.
83. Peking University, Beijing, China, June 9th, 2001.
84. Nankai University, Tianjin, China, December 19, 2016; July 23, 2014; May 28, 2001. (3 talks)
85. Georgia State University, Atlanta, GA, March, 2000.
86. Portland State University, Portland, OR, March, 2000.
87. University of Memphis, Memphis, TN, March, 2000.
88. University of Texas at Arlington, Arlington, TX, February, 2000.
89. Georgia Southern University, Statesboro, GA, February, 2000; December 1999. (2 talks)
90. College of William and Mary, Williamsburg, VA, February, 2000.
91. Georgetown University, Washington, DC, February, 2000.
92. Brigham Young University, Provo, UT, May 1999.

CONTRIBUTED
TALKS

1. Colloquium, College of William and Mary, September 20, 2013.
2. 2013 Annual Meeting of The Society for Mathematical Biology, Arizona State University, June 10-13, 2013.
3. Colloquium, College of William and Mary, February 8, 2013.
4. Workshop on Mathematical Biology, Dalhousie University, Halifax, Canada, August 18-19, 2012.
5. Colloquium, College of William and Mary, November 12, 2010.
6. Math 410 (CSUMS seminar), College of William and Mary, Feb. 3, 2010.
7. Math 410 (CSUMS seminar), College of William and Mary, Feb. 18, 2009.
8. Biomath Luncheon, College of William and Mary, March 31, 2008.
9. Math 410 (CSUMS seminar), College of William and Mary, January 22, 2008.
10. 25th Annual Southeastern-Atlantic Regional Conference on Differential Equations, Dayton University, Dayton, OH, October 8th, 2005.
11. Colloquium, College of William and Mary, Williamsburg, VA, September, 2005.

12. Sixth Mississippi State-UAB Conference on Diff. Equations & Computational Simulations, Mississippi State University, Mississippi State, MS, May 13-14th, 2005.
13. Mathematical-Computational Biology (MCB) seminar, College of William and Mary, Williamsburg, VA, October 27th, 2004.
14. 23rd Annual Southeastern-Atlantic Regional Conference on Differential Equations, Kennesaw State University, Kennesaw, GA, October 17-18th, 2003.
15. 22nd Southeastern-Atlantic Regional Conf. on Differential Equations, University of Tennessee, Knoxville, TN, October 11th, 2002.
16. Nonlinear Differential Equations, Mechanics and Bifurcation, Duke University, Durham, NC, May 20-22th, 2002.
17. 21st Southeastern-Atlantic Regional Conference on Differential Equations, Wake Forest University, Winston-Salem, NC, November 3rd, 2001.
18. Fifth Mississippi State Conference on Differential equations and computational simulations, Mississippi State University, Mississippi State, MS, May 18-19th, 2001.
19. Colloquium, College of William and Mary, Williamsburg, VA, February 16th, 2001.
20. Colloquium, College of William and Mary, Williamsburg, VA, September, 2000.
21. 20th Southeastern-Atlantic Regional Conf. on Differential Equations, Virginia Tech, Blacksburg, VA, October 21st, 2000.
22. SIAM Dynamical system conference, Snowbird, UT, May, 1999.
23. Applied Mathematics Seminar, Tulane University, New Orleans, LA, October 1998.
24. Colloquium, Tulane University, New Orleans, LA, September 1998.
25. Conference on Waves in Mathematical Biology, University of Pittsburgh, Pittsburgh, PA, September 1998.

PUBLISHED
SOFTWARE

Java applet drawing bifurcation diagram for elliptic equations (1998)
<http://www.math.wm.edu/~shij/java/bifurcation.html>

COMMITTEE
SERVICE

College committee service

- Art and Sciences library Policy committee (Fall 2006)
- College admission policy advisory committee (2008-2011, 2013-2016, chair 2016)
- Academic Calendar Advisory Committee (2011-2012, 2013-2014)
- Art and Science Committee on Honors and Interdisciplinary Studies (2016-)
- ISC4 Building Committee (2018-)

Department of Mathematics committees

- Merit Evaluation committee: 2009-2010
- Personnel committee: 2010-2011 (coordinator), 2011-2012, 2013-2014, 2017-2018.
- Colloquium Committee: 2008-2012(chair), 2013-2018(chair)
- Mathematics Contests adviser(VPI, Putnam): 2004-2007
- Mathematics Contests Committee: 2008-2012(chair), 2013-2014(chair)
- Applied Math hiring committee: 2005-2006
- Biomath hiring committee: 2006-2007, 2013-2014(chair)
- Statistics hiring committee: 2017-2018
- Computer committee: 2001-current
- Department webmaster: 2001-current

- Student information: 2005-2007
- Library representative: 2005-2007
- Online newsletter editor: 2002-2007
- Institute representative of AMS, SIAM and MAA: 2002-2007
- Space committee: 2000-2005
- Handbook committee: 2000-2001
- Undergraduate adviser: 2003-2004, 2005-2007, 2008-2012, 2013-2014, 2015-2016, 2017-2018
- Math 112 (Calculus II) course coordinator: Spring 2003, Fall 2003, Fall 2004

CONFERENCE
ORGANIZING

1. Co-organizer of The Twelfth International Conference on Recent Advances in Applied Dynamical Systems, Chongqing Normal University, Chongqing, China, June 8-10, 2018.
2. Co-organizer of Special Session on Recent Advances in Nonlinear Schrödinger Equations , AMS Sectional Meeting at University of Delaware, Newark, DE, September 29-30, 2018.
3. Member of Global Organizing Committee, Co-organizer of special session on Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations and Related Fields, 12th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, Taipei, Taiwan, July 5-9, 2018.
4. Co-organizer of special session on Nonlinear partial differential equations arising from life science, AMS Sectional Meeting at SUNY Buffalo in Buffalo, NY, September 16-17, 2017.
5. Co-organizer of The Eleventh International Conference on Recent Advances in Applied Dynamical Systems, Xi'an Jiaotong University, Xi'an, China, June 9-12, 2017.
6. Co-organizer of International Workshop on Nonlinear Analysis and Reaction-Diffusion Equations, Jiangsu University, Zhenjiang, China, June 3-5, 2017.
7. Co-organizer of Undergraduate EXTREEMS-QED workshop, College of William and Mary, April 8, 2017.
8. Member of Global Organizing Committee, Co-organizer of special session on Emergence and Dynamics of Patterns in Nonlinear Partial Differential Equations from Mathematical Science, 11th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, USA, July 1-5, 2016.
9. Co-organizer of The Tenth International Conference on Recent Advances in Applied Dynamical Systems, Jiangsu Normal University, Xuzhou, China, June 11-13, 2016.
10. Co-organizer of Workshop in Application of Mathematics in Economics and Finance, Harbin Normal University, Harbin, China, January 13-14, 2016.
11. Chair of Organizing Committee of International Symposium on Application of Nonlinear Partial Differential Equations in Life Science, Chern Institute of Mathematics, Nankai University, Tianjin, China, August 4-7, 2015.
12. Organizing committee member of Workshop on Hamiltonian Systems and Variational Methods, Southeast University, Nanjing, China, May 30-31, 2015.
13. Organizing committee member of Recent advances in reaction-diffusion equations and applications, Jiangsu Normal University, Xuzhou, China, May 21-24, 2015.
14. Organizing committee member of International Workshop on Mathematics in Life and Physical Sciences, Institute for Mathematical Sciences, Renmin University of China, May 19-21, 2015.
15. Co-organizer of special session on *Qualitative Behavior of Solutions of Partial Differential Equations*, AMS Spring Northeastern Section Meeting, Georgetown University, Washington, DC, USA, March 7-8, 2015.
16. Co-organizer of special session on *Qualitative analysis of reaction diffusion systems*, 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Spain, July 7-11, 2014.

17. Co-organizer of The Eighth International Conference on Recent Advances in Applied Dynamical Systems, Guilin University of Electronic Technology, Guilin, China, June 2-4, 2014.
18. Co-organizer of Workshop on Nonlinear Elliptic Systems, Taiyuan, China, July 24-26, 2013.
19. Co-organizer of The Seventh International Conference on Recent Advances in Applied Dynamical Systems, Linyi, China, June 8-10, 2013.
20. Co-organizer of Special session on pattern Formation in Biology, Fourth Conference on Computational and Mathematical Population Dynamics (CMPD4), Taiyuan, China, May 29–June 2, 2013.
21. Co-organizer of Special Session on *Understanding Planet Earth via Reaction Diffusion Equations*, 2013 Joint Mathematics Meeting, San Diego, CA, USA, Jan 9–12, 2013.
22. Co-organizer of 9th Eastern China PDE Conference, Shanxi University, Taiyuan, China, July 16–19, 2012.
23. Co-organizer of special session on *Nonlinear Elliptic and Parabolic Problems in Mathematical Sciences*, 9th AIMS International Conference on Dynamical Systems, Differential Equations, and Applications, Orlando, FL, USA, July 1–5, 2012.
24. Co-organizer of Undergraduate Mathematics Conference in Washington, April 21–22, 2012.
25. Co-organizer of special session on *Self-organization phenomena in reaction diffusion equations*, 2012 Spring AMS Eastern Section Meeting, Washington, DC, USA, March 17–18, 2012.
26. Co-organizer of special session *Reaction Diffusion Equations and Applications*, 2012 Joint Mathematics Meeting, Boston, MA, USA, Jan 4–7, 2012.
27. Co-organizer of 2011 Nonlinear Reaction-Diffusion Equations Summer School, Shanxi University, Taiyuan, Shanxi, China, July 17-27, 2011.
28. Co-organizer of Fifth International Conference on Recent Advances in Applied Dynamical Systems, Shanghai, China, May 16–18, 2011.
29. Co-organizer of GMU-WM 2011 CSUMS Spring Workshop, Williamsburg, Virginia, USA, April 16, 2011.
30. Co-organizer of special session *Analysis of Reaction-Diffusion Models*, 2011 Joint Mathematics Meeting, New Orleans, Louisiana, USA, Jan 6–9, 2011.
31. Co-organizer of special session *Differential Equations and Applications to Physics and Biology*, 2010 Fall AMS Southeastern Section Meeting, Richmond, Virginia, Nov 6–7, 2010.
32. Co-organizer of Fourth International Conference on Recent Advances in Applied Dynamical Systems, Zhejiang Normal University, Jinhua, China, June 17–20, 2010.
33. Main organizer of International Workshop on Reaction-Diffusion Models and Mathematical Biology, Harbin, China, June 24–June 27, 2009.
34. Co-organizer of International Conference on Nonlinear Partial Differential Equations and Geometric Analysis, Harbin, China, June 30–July 4, 2008.
35. Organizer of special session *Nonlinear Elliptic and Parabolic PDEs with Applications*, The Seventh AIMS International Conference on Dynamical Systems and Differential Equations, University of Texas at Arlington, Arlington, TX, May 2008.
36. Co-Organizer of International Workshop on Banach Space, Operator Theory and Applications in Nonlinear Analysis, Y.Y. Tsengs Functional Analysis Research Center, Harbin Normal University, Harbin, China, July 25-27, 2007.
37. Co-organizer of Second International Conference on Recent Advances in Applied Dynamical Systems, Zhejiang Normal University, Jinhua, China, June 4-8, 2007.
38. Co-Organizer of Workshop on Analysis and PDE, Y.Y. Tsengs Functional Analysis Research Center, Harbin Normal University, Harbin, China, July 21–22, 2006.
39. Co-Organizer of AMS-SIAM Special Session on *Reaction Diffusion Equations and Applications*, Joint Mathematics Meetings, Atlanta, January 5-8, 2005.

40. Organizer of special session on *Recent Developments on Nonlinear Elliptic Equations and Variational Problems*, The Fifth AIMS International Conference on Dynamical Systems and Differential Equations, California State Polytechnic University, Pomona, CA, June 2004.
41. Co-organizer of mini-symposium on Steady States in *Reaction-Diffusion Systems*, SIAM Pacific Rim Dynamical Systems Conference, Maui, HI, August 2000.

HOST FOR
ACADEMIC VISITORS
(LONGER THAN 1
WEEK)

- Zhitao Zhang (Chinese Academy of Sciences, China, Spring 2004)
- Yuwen Wang (Harbin Normal University, China, Dec. 2005–Jan. 2006)
- Jiabao Su (Capital Normal University, China, March-April 2006)
- Jitao Sun (Tongji University, China, Nov. 2009–May 2010)
- Shanshan Chen (PhD student, Harbin Institute of Technology, China, Aug. 2010–Aug. 2011)
- Xiaorong Gan (Kunming University of Science and Technology, China, Dec. 2010–May 2011)
- Jibin Li (Zhejiang Normal University, China, Oct. 2010)
- Maoan Han (Shanghai Normal University, China, Oct. 2010)
- Chuncheng Wang (University of Wyoming, May 2011–June 2011)
- Ping Liu (Harbin Normal University, China, Aug. 2011–Aug. 2012, Dec. 2016–Dec. 2017)
- Qiang Mu (Harbin Normal University, China, Aug. 2011–Aug. 2013, Apr. 2017–Dec. 2017)
- Chan-Gyun Kim (National Pusan University, Korea, Sept. 2011–July 2013)
- Jeong-Mi Jeong (National Pusan University, Korea, Sept. 2011–July 2013)
- Jun Zhou (Southwest University, China, Jan. 2012–Jan. 2013)
- Fengqi Yi (Harbin Engineering University, China, March 2012)
- Jann-Long Chern (National Central University, Taiwan, May 2008 and July 2012)
- Yihong Du (University of New England, Australia, November 2012)
- Xiangping Yan (Lanzhou Jiaotong University, China, Aug. 2013–Aug. 2014)
- Leiga Zhao (Beijing Chemical Engineering University, China, Aug. 2013–Feb. 2014)
- Fukun Zhao (Yunnan Normal University, China, Aug. 2013–Feb. 2014)
- Hong Li (University of Electronic Science and Technology of China, Sept. 2013–Sept. 2014)
- Jun Wang (Jiangsu University, China, Dec. 2013–Dec. 2014)
- Yulian An (Shanghai Institute of Technology, China, Dec. 2013–Jan. 2015)
- Zhanping Liang (Shanxi University, China, Jan. 2014–Jan. 2015)
- Yujuan Chen (Nantong University, China, Jan. 2014, Oct. 2014, Sept.–Oct. 2015)
- Guohong Zhang (Southwest University, China, Aug. 2014–Aug. 2015)
- Xiaoli Wang (Southwest University, China, Aug. 2014–Aug. 2015)
- Shunyong Li (Shanxi University, China, Sept. 2014–Sept. 2015)
- Sainan Wu (PhD student, Harbin Institute of Technology, China, Sept. 2014–Sept. 2016)
- Fangfang Jiang (PhD student, Tongji University, China, Jan. 2015–Apr. 2015)
- Xiaoqin Zhang (Shanxi University, China, Feb. 2015–Feb. 2016)
- Yuhua Li (Shanxi University, China, Feb. 2015–Feb. 2016)
- Deqiong Ding (Harbin Institute of Technology at Weihai, China, Feb. 2015–Feb. 2016)
- Wenjie Zuo (China University of Petroleum (East China), Aug. 2015–Aug. 2016)
- Jinfeng Wang (Harbin Normal University, China, Oct. 2015–Oct. 2016, Oct. 2017–Dec. 2017)
- Xiaoyuan Chang (Harbin University of Science and Technology, China, Feb. 2016–Feb. 2017)
- Jimin Zhang (Heilongjiang University, China, Feb. 2016–Feb. 2017)

- Wenjie Ni (PhD student, Harbin Institute of Technology, China, Aug. 2016-Feb. 2018)
- Qingyan Shi (PhD student, Tongji University, China, Sept. 2016-Sept. 2018)
- Xiaoyan Zhang (Shandong University, Dec. 2016-Aug. 2017)
- Yingli Pan (PhD student, Harbin Institute of Technology, China, Feb. 2017-Aug. 2017)
- Toru Kan (Tokyo Institute of Technology, Japan, March 2017)
- Ying Su (Harbin Institute of Technology, China, March 2017-April 2017)

REFEREEING FOR
JOURNALS

Totally > 500 manuscripts for > 82 journals in mathematics, physics and biology (2000-2016), about 30 – 40 each year since 2008

1. Abstract and Applied Analysis
2. Acta Applicandae Mathematicae
3. Acta Mathematica Applicatae Sinica
4. Advances in Mathematics (China)
5. Advances in Nonlinear Analysis
6. Advanced Nonlinear Studies
7. Applicable Analysis
8. Applied Mathematics Letters
9. Archive for Rational Mechanics and Analysis
10. Automatica
11. Boundary Value Problems
12. Bulletin of the Malaysian Mathematical Sciences Society
13. Bulletins of Mathematical Biology
14. Chaos
15. Communications in Contemporary Mathematics
16. Communications of Partial Differential Equations
17. Communications on Pure and Applied Analysis
18. Computers and Mathematics with Applications
19. Discrete and Continuous Dynamical Systems A
20. Discrete and Continuous Dynamical Systems B
21. Discrete and Continuous Dynamical Systems S
22. Dynamical Systems
23. Dynamics of PDE
24. Ecological Complexity
25. Ecological Modelling
26. Ecosystems
27. Electronic Journal of Differential Equations
28. Electronic Journal of Qualitative Theory of Differential Equations
29. Estuaries and Coasts
30. European Journal of Applied Mathematics
31. Frontier of Mathematics in China
32. Global Journal of Pure and Applied Mathematics
33. IMA Journal Applied Mathematics
34. IMA Journal Mathematical Medicine and Biology

35. International Journal of Bifurcation and Chaos
36. International Journal of Biomathematics
37. International Journal of Differential Equations
38. International Journal of Dynamical Systems and Differential Equations
39. International Journal of Mathematics and Mathematical Sciences
40. Journal of Biological Dynamics
41. Journal of Dynamics and Differential Equations
42. Journal of Differential Equations
43. Journal of European Mathematical Society
44. Journal of Fixed Point Theory and Applications
45. Journal of Franklin Institute
46. Journal of Functional Analysis
47. Journal of London Mathematical Society
48. Journal of Mathematical Analysis and Applications
49. Journal of Mathematical Biology
50. Journal of Nonlinear Science
51. Mathematical Biosciences
52. Mathematical Biosciences and Engineering
53. Mathematical and Computer Modeling
54. Mathematical Methods in the Applied Sciences
55. Mathematical Modelling and Analysis
56. Memoir of American Mathematical Society
57. Modelling and Simulation in Engineering
58. Natural Resource Modeling
59. Networks and Heterogeneous Media
60. New Journal of Physics
61. Nonlinear Analysis, Hybrid Systems
62. Nonlinear Analysis, Real World Applications
63. Nonlinear Analysis, Theory, Methods & Applications
64. Nonlinear Dynamics
65. Nonlinearity
66. Numerical Algorithms
67. Physica A
68. PLOSone
69. Proceedings of American Mathematical Society
70. Proceedings of London Mathematical Society
71. Proceeding of Royal Society, A
72. Proceedings of Royal Society of Edinburgh
73. Qualitative Theory of Dynamical Systems
74. Rocky Mountain Journal of Mathematics
75. Science in China (Mathematics)
76. SIAM Journal of Applied Mathematics

77. SIAM Journal of Mathematical Analysis
78. Taiwanese Journal of Mathematics
79. Theoretical Population Biology
80. Topological and Mathematical Nonlinear Analysis
81. Transactions of American Mathematical Society
82. ZAMP

OTHER REVIEW
ACTIVITIES

1. Panelist of NSF panels (Nov 2009, April 2011, April 2015, Nov 2016, Feb 2018)
2. Reviewer for Fulbright Scholar Program (2015)
3. Reviewer for Changjiang Professorship, China (2014)
4. Reviewer for Natural Sciences and Engineering Research Council of Canada (NSERC) Discovery Grant (2015, 2017)
5. Reviewer for Alberta Innovates Strategic Research Projects (2016)
6. External reviewer of tenure/full professor promotion (2015, 2017, 2018)
7. Reviewer for *Mathematical Reviews* (MathSciNet). (40+ reviews since 2000)
8. Reviewer for PSC-CUNY research Award (2008, 2009)
9. Reviewer for Book: a collection of essays in spatial ecology (2008)
10. Reviewer for Conference: ICNAAM 2008 (2008)
11. Reviewer for textbooks: (a) *Differential Equations Manuscript*, Cengage Learning, Inc. (2007); (b) *Applied Differential Equations* text by Michael Greenberg, Addison Wiley (2008); (c) *Calculus For the Life Sciences: A Modeling Approach*, by James L. Cornette and Ralph A. Ackerman, John Wiley & Sons (2008); (d) *Biocalculus*, Brooks/Cole& Cengage Learning, (2009).