

CURRICULUM VITAE

Yuan Lou
Department of Mathematics
Mathematical Biosciences Institute (MBI)
Ohio State University, Columbus, OH 43210
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Degrees

Ph.D., University of Minnesota, 1995
M.S., Beijing University, 1991
B.S., Beijing University, 1988

Experience

Associate Director, Mathematical Biosciences Institute, 2009-
Professor, Dept. of Mathematics, Ohio State University, 2008-
Associate Professor, Dept. of Mathematics, Ohio State University, 2003-08
Assistant Professor, Dept. of Mathematics, Ohio State University, 1998-2003
L.E. Dickson Instructor, Dept. of Mathematics, Univ. of Chicago, 1996-98
Postdoc, Mathematical Sciences Research Institute at Berkeley, 1995-96

Publications

- [1] (with C. Gui) Uniqueness and non-uniqueness of coexistence states in the Lotka-Volterra competition model. *Comm. Pure Appl. Math.* **XLVII** (1994), 1571-1594.
- [2] On basic semiconductor equations with heat conduction. *J. Part. Diff. Eqs.* **8** (1995), 43-54.
- [3] Necessary and sufficient condition for the existence of positive solutions of certain cooperative system. *Nonlin. Anal.: Theory, Meth. Appl.* **26** (1996), 1079-1095.
- [4] (with W. M. Ni) Diffusion, self-diffusion and cross-diffusion. *J. Diff. Eqs.* **131** (1996), 79-131.
- [5] (with Y. Du) Some uniqueness and exact multiplicity results for a predator-prey model. *Trans. Amer. Math. Soc.* **349** (1997), 2443-2475.
- [6] (with Y. Du) S-shaped global bifurcation curve of positive solutions to a prey-predator model. *J. Diff. Eqs.* **144** (1998), 390-440.
- [7] (with W.M. Ni and Y.P. Wu) The global existence of solutions for a class of cross-diffusion system. *Disc. Cont. Dyn. Sys.* **4** (1998), 193-203.

- [8] Uniqueness and non-uniqueness of metrics with prescribed scalar curvature on compact manifolds. *Indiana Math. J.* **47** (1998), 1065-1081.
- [9] (with M. Zhu) Classifications of non-negative solutions to some elliptic problems. *Diff. Int. Eqs.* **4** (1999), 601-612.
- [10] (with W.M. Ni) Diffusion vs. cross-diffusion: an elliptic approach. *J. Diff. Eqs.* **154** (1999), 157-190.
- [11] (with S. Martinez and W.M. Ni) On 3×3 Lotka-Volterra competition systems with cross-diffusion. *Dis. Cont. Dyn. Sys.* **6** (2000), 175-190.
- [12] (with Y. Du) Proof of a conjecture for the perturbed Gelfand equation from combustion theory, *J. Diff. Eqs.* **173** (2001), 213-230.
- [13] (with Y. Du) Constant and non-constant positive solutions of a predator-prey system with Neumann boundary conditions. *Proc. Roy. Soc. Edinb.* **131A** (2001), 321-349.
- [14] (with T. Nagylaki and W.M. Ni) On diffusion-induced blowups in a cooperative model. *Nonl. Anal.: Theory, Meth. Appl.* **45** (2001), 329-342.
- [15] (with T. Nagylaki) Patterns of multiallelic polymorphism maintained by migration and selection. *Theor. Pop. Biol.* **59** (2001), 297-313.
- [16] (with T. Nagylaki) A semilinear parabolic system For migration and selection in population genetics. *J. Diff. Eqs.* **181** (2002), 388-418.
- [17] (with V. Hutson and K. Mischaikow) Spatial heterogeneity of resources versus Lotka-Volterra Dynamics. *J. Diff. Eqs.* **185** (2002), 97-136.
- [18] (with C. Cosner) When does movement toward better environments benefit a population? *J. Math Anal. Appl.* **277** (2003), 489-503.
- [19] (with V. Hutson, K. Mischaikow and P. Polacik) Competing species near the degenerate limit. *SIAM J. Math. Anal.* **35** (2003) pp. 453-491.
- [20] (with W.M. Ni and S. Yotsutani), On a limiting system in the Lotka-Volterra competition with cross-diffusion. *Dis. Cont. Dyn. Sys.* **10** (2004) 435-458.
- [21] (with M. Zhu) A singularly perturbed linear eigenvalue problem in C^1 domains. *Pacific J. Math.* **142** (2004) 323-334.
- [22] (with Q. Nie and F.Y.M. Wan) Eigenvalue problems in the stability analysis of morphogen gradients, *Stud. in Appl. Math.* **113** (2004) 183-215.

- [23] (with T. Nagylaki) The evolution of a semilinear parabolic system for migration and selection in population genetics, *J. Diff. Eqs.* **204** (2004) 292-322.
- [24] (with R.S. Cantrell and C. Cosner) Multiple reversals of competitive dominance in ecological reserves via external habitat degradation, *J. Dyn. Diff. Eqs.* **16** (2004) 973-1010.
- [25] (with V. Hutson and K. Mischaikow) Convergence in competition models with small diffusion coefficients, *J. Diff. Eqs.* **211** (2005) 135-161.
- [26] (with Q. Nie and F.Y.M. Wan) Effects of Sog on Dpp-receptor binding, *SIAM J. Appl. Math.* **65** (2005) 1748-1771.
- [27] On the effects of migration and spatial heterogeneity on single and multiple species, *J. Diff. Eqs.* **223** (2006) 400-426.
- [28] (with T. Nagylaki) Multiallelic selection polymorphism, *Theor. Pop. Biol.* **69** (2006) 217-229.
- [29] (with T. Nagylaki) Evolution of A Semilinear Parabolic System for Migration and Selection without dominance, *J. Diff. Eqs.* **225** (2006) 624-665.
- [30] (with E. Yanagida) Minimization of the principal eigenvalue with indefinite weight and applications to population dynamics, *Japan J. Indus. Appl. Math* **23** (2006) pp. 275-292
- [31] (with T. Nagylaki) Evolution of the multiallelic Levin model, *Theor. Pop. Biol.* **70** (2006) pp. 401-411.
- [32] (with S. Martinez and P. Poláčik) Loops and branches of coexistence states in a Lotka-Volterra competition model, *J. Diff. Eqs.* **230** (2006) pp. 720-742.
- [33] (with R.S. Cantrell and C. Cosner) Movement towards better environments and the evolution of rapid diffusion, *Math Biosciences* **204** (2006) pp. 199-214.
- [34] (with R.S. Cantrell, C. Cosner) Advection mediated coexistence of competing species, *Proc. Roy. Soc. Edinb.* **137A** (2007) 497-518.
- [35] (with T. Nagylaki) Evolution at a multiallelic locus under migration and uniform selection, *J. Math. Biology* **54** (2007) 787-796.
- [36] (with T. Nagylaki) Evolution under multiallelic migration-selection models, *Theor. Pop. Biol.* **72** (2007) 21-40.

- [37] (with L. Allen, B.Bolker and A. Nevai) Asymptotic profile of the steady states for an SIS epidemic patch model, *SIAM J. Appl. Math* **67** (2007) 1283-1309.
- [38] (with T. Nagylaki) The dynamics of migration-selection models, Pp.117-170 in: Friedman, A. (Ed.), *Tutor. Math. Biosci. vol IV: Evolution and Ecology*, Lect. Notes Mathematics Vol. 1922, Springer, 2007.
- [39] Some challenging mathematical problems in evolution of dispersal and population dynamics, Pp.171-205 in: Friedman, A. (Ed.), *Tutor. Math. Biosci. vol IV: Evolution and Ecology*, Lect. Notes Mathematics Vol. 1922, Springer, 2007.
- [40] (with L. Allen, B.Bolker and A. Nevai) Asymptotic profile of the steady states for a spatial SIS epidemic disease reaction-diffusion model, *Discrete. Cont. Dyn. Sys. A*, **21** (2008) 145-164.
- [41] (with C.Y. Kao and E. Yanagida) Principal eigenvalue for an elliptic problem with indefinite weight on cylindrical domains, *Math. Biosci. Eng.*, **5** (2008) 315-335.
- [42] (with X.F. Chen) Principal eigenvalue and Eigenfunction of elliptic operator with large Convection and its application to a competition model, *Indiana Math Univ. Journal*, Vol. 57 (2008) 627-658.
- [43] (with Xinfu Chen and R. Hambrock) Evolution of conditional dispersal: a reaction-diffusion-advection model, *J. Math. Biol.* Vol. 57 (2008) 361-386.
- [44] (with R.S. Cantrell and C. Cosner) Approximating the ideal free distribution via reaction-diffusion-advection equations, *J. Diff. Eqs.* Vol. 245 (2008) 3687-3703.
- [45] (with L. Allen and A. Nevai) Spatial patterns in a discrete-time SIS patch model, *J. Math Biol.* Vol. 58 (2009) 339-375.
- [46] (with Sam Flaxman) Tracking prey or tracking the prey's resource? Mechanisms of movement and optimal habitat selection by predators, *J. Theo. Biol.*, Vol. 256 (2009) 187-200.
- [47] (with S. Martinez) Evolution of cross-diffusion and self-diffusion, *J. Biol. Dys.*, Vol. 3 (2009) 410-429.
- [48] (with R. Hambrock) Evolution of mixed dispersal strategy in spatially heterogeneous habitat, *Bull. Math. Biol.*, Vol. 71 (2009) 1793-1817.

- [49] (with R.S. Cantrell and C. Cosner) Evolution of dispersal in heterogeneous landscape, *Spatial Ecology*, Mathematical and Computational Biology Series, Chapman Hall/CRC Press, Edited by R.S. Cantrell, C. Cosner and S. Ruan, 2009, pp. 213-229.
- [50] (with W. Ding, H. Finotti, S. Lenhart, Y. Lou and Q. Ye) Optimal control of growth coefficient on a steady-state population model, *Nonlinear Analysis: Real World Applications*, Vol. 11 (2010) 688-704.
- [51] (with C-Y Kao and W.X. Shen) Random dispersal vs non-local dispersal, *Disc. Cont. Dynam. Sys. Series A*, Vol. 26 (2010) 551-596.
- [52] (with R.S. Cantrell and C. Cosner), Evolution of dispersal and ideal free distribution, *Math Bios. Eng.*, Vol 7 (2010) 17-36.
- [53] (with W.M. Ni and L.L. Su) An indefinite nonlinear diffusion P problem in population genetics, II: Stability and multiplicity *Disc. Cont. Dynam. Sys. Series A*, Vol 27 (2010) 643-655.
- [54] (with A. Bezuglyy) Reaction-diffusion models with large advection coefficients, *Applicable Analysis*, Vol. 89 (2010) 983-1004.
- [55] (with S.B. Hsu) Single species growth with light and advection in a water column, *SIAM J. Appl. Math.*, Vol 70 (2010) 2942-2974.
- [56] (with S.M. Flaxman and F. Meyer) Evolutionary Ecology of Movement by Predators and Prey, *Theoretical Ecology*, Vol 4(2011) 255-267.
- [57] (D. DeAngelis; G. Wolkowicz, Y. Lou, Y. Jiang, M. Novak, R. Svanbeck, M. Araujo, Y.S. Jo, E.A. Cleary) The Effect of Travel Loss on Evolutionarily Stable Distributions of Populations in Space, *The America Naturalist*, Vol 178 (2011).
- [58] (with C.H. Wu) Global dynamics of a trio-trophic model for two patches with travel losses, *SIAM J. Appl. Math.*, Vol. 71 (2011) 1801-1820.
- [59] (with I. Averill and D. Munther) On several conjectures from evolution of dispersal, *J. Biol. Dynamics*, in press, 15 pages, 2010.
- [60] (with R. Gejji, D. Munther and J. Peyton), Evolutionary Convergence to Ideal Free Dispersal Strategies and Coexistence, *Bull. Math Biol.*, in press, 2011, 40 pages, DOI: 10.1007/s11538-011-9662-4
- [61] (with C.Y. Kao and W.X. Shen) Evolution of mixed dispersal in periodic environments, *Discre. Cont. Dys. Sys. B*, Special issue in honor of Avner Friedman's 80th Birthday, accepted for publication, 20 pages

- [62] (with X.F. Chen) Effects of diffusion and advection on the smallest eigenvalue of an elliptic operators and their applications, *Indiana Univ. Math J.*, accepted for publication, 2011, 30 pages
- [63] (with S. Liang) On the dependence of the population size on the dispersal rate, *Special issue on "PDE Models from Biological Processes"*, *Discre. Cont. Dyn. Sys. Series B*, accepted for publication, September 2011, 18 pages.
- [64] (with R.S. Cantrell and C. Cosner) Evolutionary stability of ideal dispersal dispersal strategies in patchy environments, *J. Math. Biol.*, accepted for publication on October 2011, 20 pages.
- [65] (with X.F. Chen and A. Lam) Dynamics of a reaction-diffusion-advection model for two competing species, Special issue on "Nonlinear Elliptic and Parabolic Equations", *Discrete Continuous Dynamical Systems, Series A*, edited by J. Lopez-Gomez, 19 pages.

Submitted

- [66] (with D. Bokides and I. Hamilton) Female Movement and Selection in a Coercive Mating System, *Proc. Roy. Soc. Edin.*, in revision.
- [67] (with R.S. Cantrell, C. Cosner and X. Chao), Fitness-dependent dispersal versus random dispersal, *J. Differential Equations*, in revision.
- [68] (with R.S. Cantrell, C. Cosner and D. Ryan) Evolutionary stability of ideal dispersal dispersal strategies: A nonlocal dispersal model, *Canadian Applied Mathematics Quarterly*, submitted.

Professional activities

Editorial Board:

Discrete Cont. Dynamical System-B, Co Editor-in-Chief, 2009–
 Journal of Differential Equations, Associate Editor, 2012–
 Journal of Math. Anal. Appl., Associate Editor, 2011–
 Mathematical Biosciences and Engineering, Associate Editor, 2009–
 SIAM Journal of Applied Mathematics, Associate Editor, 2012–

Conference/Workshop Organizing committees:

Minisymposium, SIAM Pacific Rim Dynamical Systems Conference, 2000
 MBI Summer Program in Ecology and Evolution, July 17-Aug 4, 2006
 "Differential Equations and Biology: An International Conference in Honor of Avner Friedman", Nov 15-18, 2007, Ohio State University
 Midwest PDE seminar, Nov 2008, Ohio State University

International Workshop on Mathematical Biology: Modeling and Analysis, National Taiwan Normal University, Dec 2008

Joint Conference of the Society for Mathematical Biology and the Chinese Society for Mathematical Biology, June 14-17, 2009 , Hangzhou, China

MBI Summer Program in Ecology and Evolution, July 27-Aug 14, 2009;

Workshop on "Adaptive Movement of Interacting Species", September 10-13, 2009, Fields Institute, University of Toronto

The 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Co-organizer for the Special session "Nonlocal equations from Biology", Germany, May 25 - 28, 2010

"Workshop on PDE Models of Biological Processes", December 13-17, 2010 at National Center for Theoretical Sciences, National Tsinghua University, Taiwan

"Workshop on Nonlinear Parabolic/Elliptic Equations with Emphasis on Mathematical Spatial Ecology", East China Normal University, May 30-June 3, 2011

MBI Summer Program on "Mathematical Ecology and Evolution", July 25-Aug 6, 2011.

The International Workshop on Modeling and Analysis of PDE Models of Biological Processes, Capital Normal University, Beijing, Oct. 18-21, 2011.

Scientific Advisory Committee, Society of Mathematical Biology annual meeting, July 2012, Knoxville

International Program Committee, 15th International Symposium on Dynamic Games and Applications, Chateau Liblice, the Czech Republic

Grant and Award reviewer:

NSF

US-Israel Binational Science Foundation

Hong Kong Research Council

Chilean Research Fund Council

Canada Research Council

MITACS Canada

Portugal Research Council

French National Research Agency

National Professorship Award, Ministry of Education, Taiwan

Simons Foundation

Awards

- National Science Foundation Conference Grant DMS-1025482,
"Workshop: PDE Models of Biological Processes", \$24,000, PI.
- National Science Foundation Research Grant DMS-1021179,
"Nonrandom Dispersal of Interacting Species in Heterogeneous
Landscapes", 2010-2013, \$250,000, PI.
- National Science Foundation Grant DMS-0931642 for Mathematical
Biosciences Institute, 09/01/2010-08/31/2015, \$16,200, 000, Senior
Personnel.
- National Science Foundation UBM-Institutional DBI-0827256,
BioMathletic Training: Creating the next generation of BioMath
stars at Ohio State University, NSF Biological Infrastructure,
2008-2013, \$980,012, Co-PI.
- National Science Foundation Research Grant DMS-0615845, "Evolution
of Conditional Dispersal and Population Dynamics", Math. Biology
Program and Ecology Program, 2006-2009, \$176,512, PI.
- National Science Foundation Research Grant DMS-9801609, "Nonlinear
Problems from Combustion Theory and Biology", Analysis
Program, 1999-2002, PI.
- The Ohio State University Seed Grant, 1998-2000.
- Alfred P. Sloan Doctoral Dissertation Fellowship, 1994-1995.
- Excellent Ph.D Thesis Award, University of Minnesota, 1995.
- Excellence in Teaching Award, University of Minnesota, 1995.

Graduate Students

- Richard Hambrock (Ph.D, Nov 2007)
- Andriy Bezuglyy (Ph.D, Sep 2009)
- Dan Munther (Ph.D, August 2011)
- Dessa Bokides (M.S., June 2011)
- Isabel Averill (Ph.D, Dec 2011)
- Oyita Udiani (current M.S. student)

Postdocs

- Andrew Nevai (University of Central Florida)
- Paula Federico (Capital University)
- Heather Finotti (University of Tennessee at Knoxville)
- Rebecca Tien (Mathematical Bioscience Institute)
- Adrian Lam (Ohio State University)

Invited talks**1995**

Stanford University, Analysis seminar.
University of California at Davis, Recruitment talk.
University of California at Davis, Geometry seminar.

1996

Mathematical Sciences Research Institute at Berkeley, seminar.
University of California at Berkeley, PDE seminar.
University of California at Davis, Colloquium.
Midwest PDE seminar, University of Kentucky.
University of Minnesota, Minisymposium, Invited lecture.
University of Chicago, Calderon-Zygmund analysis seminar.
University of Iowa, Colloquium.

1997

Courant Institute, Analysis seminar.
AMS Regional Meeting, Milwaukee, PDE session.
University of Chicago, Applied Math Seminar.

1998

AMS Regional Meeting, Philadelphia, PDE session.
Cornell University, Recruitment talk.
Northwestern University, Analysis seminar.
Georgia Institute of Technology, Recruitment talk.
Texas A&M University, Recruitment talk.
The Ohio State University, Recruitment talk.
University of Chicago, Calderon-Zygmund analysis seminar.
University of Notre Dame, Analysis seminar
The Ohio State University, Applied math seminar.

1999

International Conf. on Dyn. Sys. and Appl., PDE session.
Georgia Institute of Technology, CDSNS seminar.
The Wright State University, Colloquium.
The Ohio State University, Applied math seminar.

2000

GA Tech, CDSNS Colloquium.
University of Oklahoma, Colloquium.
University of Oklahoma, Analysis seminar.
SIAM Pacific Rim Dynamical Systems Conference, Minisymposium.
University of Minnesota, PDE seminar.

GA Tech, Workshop on Diff. Equa. and Biol., Invited lecture.

2001

University of Miami, Colloquium.

University of Cincinnati, Colloquium.

PIMS conferences on nonlinear PDE, UBC, Invited lecture.

Workshop on nonlinear PDE, Ryukoku University, Invited lectures.

Tohoku University, PDE seminar.

Waseda University, Applied Math. seminar.

2002

UC Irvine, Applied math seminar.

AMS regional meeting at Ann Arbor, PDE session.

Peking University, PDE seminar.

GA Tech, CDSNS Colloquium.

Michigan State University, Applied math seminar.

University of Michigan, Differential equation seminar.

Penn State University, Applied math seminar.

Penn State University, CAM Luncheon seminar.

2003

Purdue University, PDE seminar.

University of California at San Diego, Geometry seminar.

University of California at Irvine, Analysis seminar.

Conference on PDEs and applications, University of Notre Dame

2004

Minicourse in "Mathematical and Computational methods in biology", CIMPA Summer school at Center for scientific studies, Valdivia, Chile.

The Ohio State University, Applied Math. seminar

University of Minnesota, PDE seminar

Huadong PDE workshop at Nanjing University

Workshop on Analysis, Center for Math. Sci., Zhejiang Univ., 2 lectures

USTC, Analysis seminar

Southeast University, informal student seminar

AMS regional meeting, University of Pittsburgh

2005

Workshop on Spatial Ecology, University of Miami

Pan-American Advanced Studies Institute (PASI) on Differential Equations and Nonlinear Analysis, Plenary speaker, Universidad de Chile, Santiago, Chile

Applied math seminar, Iowa State Univeristy
 PDE seminar, Michigan State University
 PDE seminar, Ohio State University
 Workshop on "Topological and Variational Methods for Differential Equations", June 26-July 2nd, Invited speaker, Oberwolfach

2006

Century of Excellence Symposium, Feb 16-18, Plenary speaker, Tohoku University
 The 7th Northeastern Symposium on Mathematical Analysis, Feb 21-22, Plenary Speaker, Hokkaido Univeristy
 Colloquium (joint with Math Biology seminar), Arizona State, March
 AMS meeting, Special session of Math. Biology, University of Notre Dame
 PDE seminar, GA Tech
 AMS meeting, Special session on PDE and applications, Cincinnati
 MBI posdoc seminar, Ohio State Univ.
 Workshop on Modeling, Analysis, and Computations for Biological Applications, two lectures, Dec 14-15, National Jiao-Tong University, Taiwan
 PDE seminar, National Taiwan Normal Univeristy, Taiwan

2007

Workshop on the Mathematics of Global Public Health, Arizona State University, March 7-10.
 PDE seminar, Ohio State Univ.
 SIAM Student Chapter Talk, University of Tennessee at Knoxville
 Applied Math seminar, Beijing University
 PDE seminar, Capital Normal University
 PDE seminar, Tong-Ji University
 PDE seminar, Donghua University
 Symposium on "The mathematics of spatial ecology", EcoSummit 2007, Beijing, May 22-27.
 Symposium on "Ecology, evolution and modeling of disease dynamics", EcoSummit 2007, Beijing, May 22-27.
 The Fourth International Conference on Mathematical Biology, Wuyishan city, Fujian, P.R. China, May 29-June 1.
 PDE and Applied Math seminar, University of Chicago
 Recent progress on nonlinear elliptic and parabolic problems and related abstract methods, Banff, Oct 8-12, 2007.
 First Chile-Japan Workshop on Nonlinear Elliptic and Parabolic PDE, October 23 - 26, 2007, University of Chile.

Analysis seminar, Courant Institute

2008

Colloquium, Univ. of California, Irvine

Applied Math seminar, Univ. of California, Irvine

PDE seminar, University of Minnesota

Colloquium, Univ. of Vienna

Workshop on Mathematical and Computational Challenges in PDE
Eigenvalue Problems, May 26-28, Beijing

PDE Workshop, July 25-27, Univ. of Iowa

Population genetics workshop, September 28–Oct 3rd, KITP at Santa
Barbara

Fields Institute, Applied Math seminar

International Conference on Differential Equations and Applications
in Ecology and Epidemiology, Dec 8-10, 2008, Purdue University

International Workshop on Mathematical Biology, Dec 15-16, 2008,
National Taiwan Normal University

Taiwan Mathematical Society Annual meeting, Dec 19-21, 2008,
National Tsing-Hua University

National Taiwan University, Year End Meeting

National Chung-Cheng University, Taiwan, PDE Seminar

2009

Providence University, Taiwan, PDE Seminar, Jan 2009

National Center for Theoretical Science, Tsinghua University, series of
lectures on Mathematical Biology, Jan 2009

National Central University, PDE seminar, Jan 2009

Donghua University, PDE seminar, June 2009

Tongji University, PDE seminar, July 2009

International Workshop on Reaction-Diffusion Models and
Mathematical Biology, Harbin, June 24–June 27, 2009

Joint Conference of the Society for Mathematical Biology and the
Chinese Society for Mathematical Biology, Mini-symposium on
"Evolution of dispersal", June 14-17, 2009, Hangzhou, China

2009 Summer School on Elliptic/Parabolic Partial Differential
Equations at Eastern China Normal University, 6 lectures, July 2009

The 6th East China Conference on Partial Differential Equations, July
2-9, 2009

Workshop on Adaptive Movement of Interacting Species, September
10-13, 2009, Fields Institute

The Second International Conference on Mathematical Modeling and
Analysis of Populations in Biological Systems October 9-11, 2009,
Huntsville, Alabama

University of Oklahoma, Nov 2009, Colloquium

University of Western Ontario, Applied Math Colloquium, Nov 2009

2010

Vanderbilt University, March 2010, Colloquium

Michigan State University, Math Biology Seminar, March 2010

The 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Special session on "Reaction-diffusion Systems", Germany, May 2010

The 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Special session "Nonlocal equations from Biology", Germany, May 2010

NIMBioS Niche Variation Working Group, 6/21-6/24, 2010

University of Miami, Colloquium, Oct 2010

Georgia Institute of Technology, PDE seminar, Nov 2010

AMS special session "Computation, Analysis, Modeling in PDE and their Applications" in the AMS Central Section Regional Meeting, Notre Dame, Nov 5-7 2010.

Workshop on "PDE Models of Biological Processes", December 13-17, 2010 at Hsin-Chu, Taiwan

The Fifth International Congress of Chinese Mathematicians, Tsinghua University, Beijing, Dec 17-22 2010

PDE seminar, Peking University, Dec 21 2010

PDE seminar, Capital University, Dec 22 2010

PDE seminar, Donghua University, Dec 29 2010

2011

Biomathematics Conference, University of Florida, March 17-19, Plenary speaker

"Workshop on Nonlinear Parabolic/Elliptic Equations with Emphasis on Mathematical Spatial Ecology", Eastern China Normal University, May 30-June 3, 2011, 5 Lectures.

Symposium on Nonlinear Dynamical Systems and Application, Shanghai Jiao-Tong University, June 6-9, 2011

BIRS Workshop on "Emerging Challenges at the Interface of Mathematics, Environmental Science and Spatial Ecology", July 3-8 2011

Mini-Symposium on "Modeling of Ecological Systems" in ICIAM 2011, July 18-22, 2011, Vancouver.

Fifth G. J. Butler International Conference on Mathematical Biology and Differential Equations, Plenary speaker, University of Alberta, Edmonton, July 25-30 2011

University of Pittsburgh, Department Colloquium, September 9
Applied Math seminar, University of Ottawa, September 13
CDM Distinguished Lecture, York University, September 16
International workshop on Nonlinear PDEs arising in math biology,
Edinburgh, Sep 25-29
Iowa State University, Department Colloquium, Oct 4
PDE conference at RIMS, Kyoto University, October 2011
Southern Osaka PDE workshop, Osaka Prefecture University, October
2011
PDE seminar, Osaka University, Nov 2011
University of Texas at Arlington, UTTER seminar
University of Texas at Arlington, Department Colloquium
University of South Carolina, Applied Math Seminar
UBM seminar, Ohio State