

JIAXU LI

Curriculum Vitae

Department of Mathematics
University of Louisville
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Louisville KY 40292

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EDUCATION:

Ph.D., Mathematics, Arizona State University, 2004

Field of concentration: Mathematical Biology, ODE, DDE, Dynamical Systems

Dissertation title: “*The Dynamics of Glucose-Insulin Endocrine Metabolic Regulatory System*”

Advisor: Professor Yang Kuang

Master in Computer Science, Arizona State University, 1996

Field of concentration: Graphics and Image Processing, Database, Software Engineering

Master of Science, Applied Mathematics, Dalian University of Technology, 1988

Field of concentration: Ordinary Differential Equations, Biomathematics

Bachelor of Science, Mathematics, Jilin University, 1982

Field of concentration: Mathematics

RESEARCH INTERESTS

- Mathematical Biology and Medicine
- Dynamical Systems
- Differential Equations

PROFESSIONAL EXPERIENCES

Academic Appointment

07/2013 to present, Associate Professor

Department of Mathematics, University of Louisville, Louisville KY

08/2014 to present, Adjunct Faculty

Simon A Levin Mathematical, Computational and Modeling Sciences Center (MCMSC) and College of Liberal Arts and Sciences, Arizona State University, Tempe AZ

03/2014 to 05/2014, Visiting Researcher

NIDDK Laboratory of Biological Modeling, National Institute of Health, Bethesda MD

08/2013 to 05/2014, Visiting Assistant Professor

School of Mathematics and Statistics, Arizona State University, Tempe AZ

05/2013 to 06/2013, Visiting Professor

School of Mathematics and Information, Xinyang Normal University, Xinyang, Henan China

08/2007 to 06/2013, Assistant Professor

Department of Mathematics, University of Louisville, Louisville, KY

08/2005 to 08/2007, Faculty Associate

Department of Mathematics and Statistics, Arizona State University, Tempe AZ

01/1992 to 07/1995, Teaching Assistant

Department of Mathematics and Statistics, Arizona State University, Tempe AZ

08/1988 to 12/1991, Lecturer (equivalent to Assistant Professor)

Department of Mathematics, Heilongjing University, Harbin China

07/1982 to 07/1985, Instructor

Department of Mathematics, Inner Mongolian E&H College, Huhehaote China

Industrial Experiences

01/2004 to 08/2007, Senior Staff Software Engineer

Advanced Semiconductor Materials America, Inc., Phoenix AZ

2002 to 2003, Senior Staff Software Engineer

Novellus Systems, Inc., Chandler AZ

11/1996 to 2002, Senior Staff Software Engineer

SpeedFAM-IPEC, Inc., Chandler AZ

05/1996 to 11/1996, Programmer and Analyst

Managed Care Solutions, Inc., Phoenix AZ

AWARDS (since 2000)

2011-2012 Faculty Favorite, *An Outstanding Professor Nominated by Students*

Delphi Center for Teaching and Learning, University of Louisville, Louisville KY, 2012

2010-2011 Faculty Favorite, *An Outstanding Professor Nominated by Students*

Delphi Center for Teaching and Learning, University of Louisville, Louisville KY, 2011

Graduate Research Award

Department of Mathematics and Statistics, Arizona State University, Tempe, AZ, 2004

GRANTS (since 2000)

NIH/NIDCR Grant, R01-DE019243, *Mathematical Model of Parotid Acinar Cell Differentiation*

09/2008 – 06/2013, \$1.6 million. Co-Investigator. (PI: Douglas S. Darling, University of Louisville, School of Dentistry; Grzegorz A. Rempala, Georgia Health Sciences University.)

DOE Grant, DE-EM000197, *Extension of Informatics Infrastructure to Support Translational and Basic Research*

01/01/2010 – 12/31/2011, \$951,000. Co-Investigator. (PI: Toledo Kalbfleisch, University of Louisville, School of Medicine; Eric C. Rouchka, Speed School of Engineering.)

UofL Undergraduate Research Grant, IRIG-50592, *Mathematical modeling the regulation of the *srfH* promoter in *Salmonella enteric serovar Typhimurium**
University of Louisville Intramural Research Incentive Grants Program
01/2010 – 12/2010, \$4,000. PI. Student: Amy Gasson.

CEGIB Career Development Award, *Modeling Biological Systems by Stochastic Differential Equations*
Career Development Program of the Center for Environmental Genomics and Integrative Biology (CEGIB), University of Louisville, supported by NIH/NIEHS Grant P30ES014443, PI: Kenneth S. Ramos, 05/2006–04/2011.
01/2009–12/2009, \$16,000. PI.

ASU Multi-interdisciplinary Grant, MGIA-200608, *Towards an Integrative Study of Pathways to Diabetes Mellitus*
Arizona State University – West Campus
01/2006 - 12/2006, \$7,000. Co-PI. (PI: Haiyan Wang, ASU West Campus; CoPI: Yang Kuang, ASU Tempe Campus)

COURSES TAUGHT

Finite Mathematics	Trigonometry
Math for Elem Edu (II)	Pre-calculus
Calculus I	Calculus II
Calculus III	Geometry Investigation
Linear Algebra	Differential Equations
Applied Differential Equations	Brief Functional Analysis
Introduction to Math Biology and Medicine	Math Biology and Medicine
Mathematical Modeling I* (mainly dynamical system)	
Mathematical Modeling II* (mainly dynamical system)	

(* graduate courses for qualifier exam preparation)

COURSES DEVELOPED

“*Mathematical Biology and Medicine*”, Spring of 2009.

Designed for both undergraduate and graduate students with background of Elementary ODE

(Prerequisites: MATH 311 *Linear Algebra*, MATH 405 *Differential Equations* or strong background in Calculus.)

“*Introduction to Mathematical Biology and Medicine*”, Spring of 2011.

Designed for graduate students with background of dynamical system theory

(Prerequisites: MATH 635 *Mathematical Modeling I* and MATH 636 *Mathematical Modeling II* or Theory of Dynamical Systems).

STUDENTS (since 2000)

Doctoral students

Minghu Wang (Awarded in 2015, Chair)

Anarina Murillo (ASU MTBI, Co-Chair)

Daniel Burkaw (ASU MTBI, Co-Chair)

Undergraduate students

Amy Gasson (2011)

Committees Served

Doctoral students: Xiao Wang (2011), Pedro Ramos (2011), Beatrice Ugiliweneza (2011), Kim Meyer (2012), Michael Godbey (2014), Quancheng Meng (expected 2015), Melissa Metzler (Dental School, expected 2016)

Master students: Ram C. Neupane (2009), Jeremy Riley (2012)

PUBLICATIONS

Books Edited

1. Yang Kuang, **Jiaxu Li**, Bingtuan Li, Urszula Ledzewicz and Ami Radunskaya, *Mathematical Biology and Medicine, a special issue of Discrete and Continuous Dynamical Systems, Series B*, Vol. 12:2, Sept. 2009, 261–544.

Intelligent Patents

1. **J. Li** and A. Sherman, DDEMiniMod: A software of a delay differential equation model for intravenous glucose tolerance test and physiological indexes. (*in process*)

Refereed Journal Papers

1. X. Song, M. Huang and **J. Li**, Modeling impulsive insulin delivery in insulin pump with time delays, *SIAM J. Appl. Math.*, 74:6 (2014), 1763–1785.
2. M. Wang, **J. Li**, G. Lim and J. Johnson, Is dynamic autocrine insulin signaling possible? A mathematical model predicts picomolar concentrations of extracellular monomeric insulin within human pancreatic islets, *PLoS ONE*, 8:6 (2013), e64860. doi:10.1371/journal.pone.0064860
3. J. Kim, J. Li, S. G. Venkatesh, D. S. Darling, Rempala G.A., Model discrimination in dynamic molecular systems: Application to parotid de-differentiation network, *J. Comput. Biol.*, Jul;20(7):524-39, (2013). doi: 10.1089/cmb.2011.0222. PMID: 23829652.
4. M. Huang, **J. Li**, X. Song and H. Guo, Modeling impulsive injections of insulin: towards artificial pancreas, *SIAM J. Appl. Math.*, 72:5 (2012), 1524-1548. (This paper is selected as SIAM Nugget, <http://connect.siam.org/toward-an-artificial-pancreas-math-modeling-and-diabetes-control/>)
5. **J. Li**, M. Wang, A. De Gaetano, P. Palumbo and S. Panunzi, The range of time delay and the global stability of the equilibrium for an IVGTT model, *Math. Biosci.*, 235 (2012), 128–137. doi:10.1016/j.mbs.2011.11.005 (available online since Nov. 19, 2011.) (PMID: 22123436.)
6. A. Makroglou, I. Karaoustas, **J. Li**, Y. Kuang, (2011), Delay differential equation models in diabetes modeling: a review, in *Mathematical Physiology*, Eds. Andrea de Gaetano and Pasquale Palumbo, in *Encyclopedia of Life Support Systems (EOLSS)*, Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford, UK. (<http://www.eolss.net>) (Retrieved August 28, 2012.)

7. **J. Li** and J. Johnson, Mathematical models of subcutaneous injection of insulin analogues: a mini-review, Discrete Contin. Dynam. Systems, B, Special Issue: Mathematical Models in Biology and Medicine, *Discrete Contin. Dynam. Systems, B.*, 12:2, 401-414 (2009). (PubMed PMID: 21572588; PMCID: PMC3093671.)
8. **J. Li** and Y. Kuang, Systemically modeling the dynamics of plasma insulin in subcutaneous injection of insulin analogues for type 1 diabetes, *Mathematical Biosciences and Engineering*, 6:1 (2009), 41–58.
9. H. Wang, **J. Li** and Y. Kuang, Enhanced modeling of the glucose-insulin system and its applications in insulin therapies, *J. Biol. Dynamics*, 3:1 (2009), 22–38. (PMID: 21297886; PMCID: PMC3032387.)
10. **J. Li**, Z. Lin, F. Liu, A. Thompson, and D. Webb, An application of maximum likelihood estimation for Logistic distribution in quantal responses, *The 8th Hawaii International Conference on Statistics, Mathematics and Related Fields (HICSM)*, Jan. 13–15, 2009. 2009 HICSM Proceedings, 171–179.
11. H. Wang, **J. Li** and Y. Kuang, Mathematical modeling and qualitative analysis of insulin therapies, *Math. Biosci.*, 210 (2007), 17–33. (PMID: 17610909)
12. **J. Li** and Y. Kuang, Analysis of a model of the glucose-insulin regulatory system with two delays, *SIAM J. Appl. Math.*, 67:3 (2007), 757–776. (PMID: 19292507; PMCID: PMC3030458.)
13. **J. Li**, Y. Kuang and C. Mason, Modeling the glucose-insulin regulatory system and ultradian insulin secretory oscillations with two time delays, *J. Theor. Biol.*, 242 (2006), 722–735. (PMID: 16712872.)
14. A. Makroglou, **J. Li** and Y. Kuang, Mathematical models and software tools for the glucose-insulin regulatory system and diabetes: an overview, *Applied Numerical Mathematics*, 56 (2006), 559–573.
15. **J. Li**, Y. Kuang and B. Li, Analyses of IVGTT glucose-insulin interaction models with time delay, *Discrete Contin. Dynam. Systems, B.* 1 (2001), 103–124.
16. X. Chen and **J. Li**, On the qualitative behaviour of solutions of the Lienard equation, *Ann. Diff. Equa.*, 12:3 (1996), 267–279.
17. **J. Li**, Existence of limit cycles for the system $dx/dt = f(y) - F(x)$, $dy/dt = -g(x)$, *Acta Sci. Natur. Univ. Heilongjiang*, 9:2 (1992), 6–12.
18. **J. Li**, On the equivalency of oscillation between the unforced and the forced Lienard equation, *Acta Sci. Natur. Univ. Heilongjiang*, 7:1 (1990), 23–26.
19. **J. Li**, H. Fan, T. Jiang and X. Chen, Qualitative analysis of differential equations for a class of multimolecular reaction models (Chinese, English abstract), *J. Biomath.*, 5:2 (1990), 162–170.
20. X. Chen, **J. Li** and H. Fan, Harmonic solutions of the equation $x'' + f(x)x' + g(x) = p(t)$, *Chin. Ann. Math. Ser. A*, 11:5 (1990), 559-565

Manuscripts in Review

1. A. Makroglou, I. Karaouostas, **J. Li** and Y. Kuang, A review on delay differential equation models in diabetes modeling, II: the insulin therapies and the intracellular activities of β -cells case, (in review with *Math. Computers in Simulation*).

Work in Progress

1. **J. Li** and A. Sherman, A delay differential equation model for intravenous glucose tolerance test and hepatic glucose production index. (*finishing up*)
2. X. Shi, Y. Kuang and **J. Li**, A new modeling approach for delayed effect in IVGTT. (*finishing up*)
3. C. Hu, J. D. Johnson and **J. Li**, Modeling the distribution of insulin in pancreatic vein. (*finishing up*)
4. D. Deng, **J. Li** and F. Liu, A novel approach of parameter estimation for dynamical system models, in preparation. (*finishing up*)
5. (with D. Burkow, S. Mokshagundam, C. Castillo-Chavez) A framework for the algorithms for close-loop control in insulin pump. (*work in progress*)
6. M. Wang, J. D. Johnson and **J. Li**, Intermittent rest through ultradian oscillations of insulin secretion may prevent β -cells from death. (*work in progress*)
7. Optimized control algorithms for artificial pancreas. (*in preparation*)
8. (with X. Zhou) Intermittent rest through ultradian oscillations of insulin secretion may prevent β -cells from death. (*work in progress*)
9. (with X. Shi, B. N. Appakalai, S. Mokshagundam) Estimating the numbers of islets of pigs by IVGTT. (*work in progress*)

SOFTWARE PACKAGES DEVELOPED

Software package of computing two-parameter stable region, periods, time shifts between peaks of periodic solutions of different variables in ODE and DDE systems, 2004.

Software package of computing single-parameter bifurcation diagram, periods and time difference between peaks of periodic solutions of different variables in ODE and DDE systems, 2005. (This software package was used by other colleagues in their refereed publications.)

INVITED TALKS (since 2000)

An integrated model towards closed loop control of plasma glucose level, University of Science and Technology of Beijing, Beijing, China, July 10, 2015.

An integrated model towards closed loop control of plasma glucose level, Beijing 304 Hospital, Beijing, China, July 8, 2015.

An integrated model towards closed loop control of plasma glucose level, Capital Normal University, Beijing, China, July 6, 2015.

An overview of mathematical models in glucose and insulin endocrine metabolism system, Capital Normal University, Beijing, China, July 5, 2015.

An overview of mathematical models in glucose and insulin endocrine metabolism system, Renmin University of China, Beijing, China, June 26, 2015.

An integrated model towards closed loop control of plasma glucose level, Ohio State University, Columbus OH, April 17, 2015.

Integrated models for artificial pancreas with time delay, 2015 Spring AMS Sectional Meetings, University of Alabama at Huntsville, Huntsville AL, March 27-29, 2015.

Modeling impulsive insulin delivery: towards artificial pancreas, Jilin University Medical School Second Hospital, Changchun, China, Dec. 19, 2014.

(presented by Anarina Murillo) Insulin action on free fatty acids may give insight into the onset of type 2 diabetes, Arizona State University MTBI, July 23, 2014.

(presented by Daniel Burkow) Exploring the dynamic input of blood insulin concentration with periodic and impulsive subcutaneous insulin injections, Arizona State University MTBI, July 23, 2014.

β -cell survival, insulin dissolution and distribution in vein, Zhejiang University of Technology, Hangzhou, China, June 25, 2014.

β -cell survival, insulin dissolution and distribution in vein, Xinyang Normal University, Xinyang, China, June 19, 2014.

Towards artificial pancreas: modeling insulin delivery and hexamer dissolution, Jilin University, Changchun, China, June 10, 2014.

Mathematical in Physiology: Modeling intravenous glucose tolerance test, Jilin University, Changchun, China, June 8, 2014.

Modeling impulsive injections of insulin: towards artificial pancreas, Drexel University, May 7, 2014.

Intermittent insulin secretion might help beta-cells to survive, Workshop on Diabetes Systems Biology, Fields Institute, Toronto, March 24-26, 2014.

Modeling Impulsive Insulin Delivery towards Artificial Pancreas (poster presentation), Workshop on Diabetes Systems Biology, Fields Institute, Toronto, March 24-26, 2014.

Modeling impulsive injections of insulin towards artificial pancreas, Purdue, Feb. 28, 2014.

Mathematical Studies of the Anti-apoptotic Effects on Pancreatic Beta-cells, AMS 2013 Fall Southeastern Sectional Meeting, Oct. 6, 2013. (Presented by Ph.D. student, Minghu Wang.)

Modeling impulsive injections of insulin: towards artificial pancreas, Arizona State University, Sept. 20, 2013.

Is dynamic autocrine insulin signaling possible? A mathematical model predicts picomolar concentrations of extracellular monomeric insulin within human pancreatic islets, Xinyang Normal University, June 24, 2013.

Modeling impulsive injections of insulin: towards artificial pancreas, Annual Meeting of SMB, Tempe AZ, June 10-14, 2013.

Modeling Impulsive Insulin Delivery, FDA-JDRF-NIH Workshop on Innovation Towards an Artificial Pancreas, Bethesda, April 9–10, 2013. (poster presentation)

Modeling impulsive injections of insulin: towards artificial pancreas, School of Mathematical and Natural Sciences, Arizona State University - West Campus, Phoenix, AZ, Sept. 6, 2012.

(presented by co-author, Xinyu Song) Modeling impulsive injections of insulin: towards artificial pancreas, The 7th Annual Conference of Chinese Society of Mathematical Biology, Beidai River, China, July 24-26, 2012.

Modeling impulsive injections of insulin: towards artificial pancreas, The 9th AIMS International Conference, Orlando, FL, July 1-5, 2012.

Intravenous glucose tolerance test models and its global stability , The 9th AIMS International Conference, Orlando, FL, July 1-5, 2012.

Mathematical models in intravenous glucose tolerance test (IVGTT), University of Science and Technology Beijing (USTB), Beijing, China, June 13, 2011.

Mathematical models in intravenous glucose tolerance test (IVGTT), Xinyang Normal University, Xinyang, China, June 7, 2011.

Mathematical models in glucose-insulin regulatory system, Xinyang Normal University, Xinyang, China, June 7, 2011.

Modeling scaling insulin concentrations in islet and insulin distribution in pancreas, International Congress of Mathematical Biology, Nanjing, China, June 4, 2011.

Modeling scaling insulin concentrations in islet and insulin distribution in pancreas, Arizona State University, April 29, 2011.

Two mathematical models in medicine, Beijing University of Technology, China, June 21, 2010.

Some examples in mathematical medicine, University of Shanghai for Science and Technology, China, June 18, 2010.

Delay differential equations and its applications, Beijing University of Technology, China, May 31, 2010.

Mathematical modeling in medicine, Math. Biol. Seminar, University of Louisville, April 9, 2010.

Modeling Terminal Differentiation of Mammalian Cells, UT-ORNL-KBRIN Bioinformatics Summit 2010, Lake Barkley State Resort Park, Cadiz, KY, March 19-21, 2010. (with Douglas Darling.)

Delay Dependent Conditions for Global Stability of an Intravenous Glucose Tolerance Test Model, The Second International Conference on Mathematical Modeling and Analysis of Populations in Biological Systems, Huntsville, AL, Oct. 9-12, 2009.

A few models in glucose-insulin regulatory system, Northeast Normal University, Changchun, China, June 29, 2009.

A few models in glucose-insulin regulatory system, International Workshop on Reaction-Diffusion Models and Mathematical Biology, June 24-27, Harbin, China.

A few models in glucose-insulin regulatory system, Beijing University of Technology, Beijing, China, June 19, 2009.

- Global stability of a model in intravenous glucose tolerance test, the First Joint Conference of the Society for Mathematical Biology and the Chinese Society for Mathematical Biology, Hangzhou, China, June 14-17, 2009.
- Mathematical models of the dynamics of insulin concentration, Centers of Biomedical Research Excellence (COBRE), University of Louisville, Louisville KY, March, 2009.
- Modeling the dynamics of subcutaneous injection of insulin analogues, CEGIB, University of Louisville School of Medicine, Feb., 2009. (poster presentation)
- Work presented by collaborator (Dr. Fengshan Liu), An application of maximum likelihood estimation for Logistic distribution in quantal responses, The 8th Hawaii International Conference on Statistics, Mathematics and Related Fields, Honolulu, Hawaii, Jan. 13-15, 2009. (poster.)
- Systemically modeling the dynamics of plasma insulin in subcutaneous injection of insulin analogues for type 1 diabetes, 2008 Fall AMS Sectional Meetings, University of Alabama at Huntsville, Huntsville AL, October 24-26, 2008.
- A few mathematical models in the glucose-insulin regulatory system, Math. Biol. Seminar, University of Louisville, October, 2008.
- Mathematical models in glucose-insulin regulation system, University of British Columbia, Vancouver BC, Canada August, 2008.
- Pharmacokinetical models of subcutaneous injection of insulin analogues for type 1 diabetes, The 7th AIMS International Conference, Arlington TX, May 18-21, 2008.
- Modeling the glucose-insulin regulation system: towards to artificial pancreas, The 7th AIMS International Conference, Arlington TX, May 18-21, 2008.
- Modeling glucose-insulin regulatory system with two-time delays, AMS Western Section Meeting, Claremont CA, May 3-4, 2008.
- Modeling and Analysis of Glucose-Insulin Regulatory System with Explicit Time Delays, KBRIN Summit, March, 2008. (poster presentation)
- A few models in glucose-insulin regulatory system, CEGIB Journals Club, University of Louisville, Louisville, March, 2008.
- Modeling the Insulin Analogue Administration for Type 1 Diabetes, DESU Summer Workshop, Delaware State University, Dover DE, Aug., 2007.
- Modeling and Analysis of Glucose-Insulin Regulatory System with Explicit Delays, Ohio MBI Workshop 7: Insulin Secretion, Insulin Actin, and Type 2 Diabetes, May 21-24, 2007. (poster presentation and talk)
- Mathematical modeling and qualitative analysis of insulin therapies, DESU Summer Workshop, Delaware State University, Dover DE, July-Aug., 2006.
- Modeling glucose-insulin regulatory system with explicit time delays, Dept. of Mathematics and Statistics, University of North Florida, Jacksonville FL, Feb., 2006.
- Modeling glucose-insulin metabolic system and insulin secretory ultradian oscillations with explicit time delays, DESU Summer Workshop, Delaware State University, Dover DE, Aug., 2005.
- Modeling the Ultradian Oscillations of Insulin Secretion with Two Time Delays, AMS Annual Conference, Atlanta GA, Jan., 2005. (contributed talk)

The Dynamics Of Insulin Secretion: Rapid Oscillation and Ultradian Oscillation, AIMS' Fifth International Conference on Dynamical Systems and Differential Equations, Pomona CA, June, 2004.

Mathematical models and software for the glucose-insulin regulatory system associated with diabetes: An overview, Third International Conference on the Numerical Solutions of Volterra and Delay Equations, Tempe AZ, May, 2004.

PROFESSIONAL SERVICES (since 2000)

Colloquium Committee, Department of Mathematics, University of Louisville, 2008 – 2010

Technology and Facilities Committee, College of Art & Science, University of Louisville, 2009 – 2011

Undergraduate Study Committee, Department of Mathematics, University of Louisville, 2011 – 2013

Personnel Committee, Department of Mathematics, University of Louisville, 2014 – 2017

Referee of more than two dozens of professional journals including SIAM Appl. Math., J. Math. Biol., J. Theor. Biol., Math. Bioscience, Math. Biosci. Eng., J. Biol. Dynamics, DCDS-B, J. Math. Anal. Appl., Nonlin. Dyn., Nat. Res. Modeling, Math. Comp. Modeling, Math. Comp. Sim., J. Royal Soc. Interface, J. Biol. Sys., Appl. Numeri. Math., Appl. Anal., Math. Modeling Anal., Automatica, Comp. Methods Prog. Biomed., IFAC Congress, Int. J. AI Med., J. Nonlin. Mech., Islet, Math. Medicine Biol., and etc.

Reviewer of Mathematical Review (Reviewer Number: 42064).

Ad hoc referee for Natural Science and Engineering Research Council of Canada (NSERC)

Ad hoc referee for Austrian Science Fund (FWF) (Austrian NSF)

Ad hoc referee for National Institute of Health (NIH) pilot programs

Ad hoc referee for Canadian NSERC

Co-organizing the Special Session, “*Mathematical Biology and Medicine*”, at the 9th AIMS International Conference, Orlando FL, July 1–5, 2012 (with Yang Kuang, Bingtuan Li and Andrew Nevai)

Member of *System Modeling Group* of the *Center for Environmental Genomics and Integrative Biology* (CEGIB), and *Bioinformatics, Biostatistics and Computational Biology* (BBCB), 2007–2011

Co-organized the Mini-Symposiums: *Differential Equation Models in Medicine*, First Joint Conference of the Society for Mathematical Biology and the Chinese Society for Mathematical Biology, Hangzhou, China, June 14-17, 2009 (with Yang Kuang)

Co-organized the Mini-symposiums II: *Towards collaborative research* between the Department of Mathematics and the School of Medicine, Department of Mathematics and Bioinformatics, Biostatistics and Computational Biology (BBCB) Core of the Center of Environmental Genomics and Integrative Biology (CEGIB), University of Louisville, Louisville KY, April 24, 2009 (with Thomas Riedel and Nigel Cooper)

Co-organized the Mini-symposiums I: *Towards collaborative research* between the De-

partment of Mathematics and the School of Medicine, Department of Mathematics and Bioinformatics, Biostatistics and Computational Biology (BBCB) Core of the Center of Environmental Genomics and Integrative Biology (CEGIB), University of Louisville, Louisville KY, April 3, 2009 (with Thomas Riedel and Nigel Cooper)
Co-organized the Special Session, “*Mathematical Biology and Medicine*”, The 7th AIMS International Conference, Arlington TX, May 18-21, 2008 (with Yang Kuang and Bingtuan Li)

RECENT COLLABORATORS (total 24 since 2000)

Changbing Hu, University of Louisville, Louisville KY, USA
Douglas Darling, University of Louisville, School of Dentistry, Louisville KY, USA
Andrea De Gaetano, Istituto di Analisi dei Sistemi ed Informatica “A. Ruberti”, Rome, Italy
Hongjian Guo, Xinyang Normal University, Xinyang, China
James D. Johnson, University of British Columbia, Vancouver, Canada
Minghan Huang, Xinyang Normal University, Xinyang, China
Jordanis Karaoustas, University of Portsmouth, Portsmouth, UK
Jaejik Kim, Georgia Health Sciences University, Augusta GA, USA
Yang Kuang, Arizona State University, Tempe AZ, USA
Bingtuan Li, University of Louisville, Louisville KY, USA
Gareth Lim, University of British Columbia, Vancouver, Canada
Zhongyan Lin, Delaware State University, Dover DE, USA
Fengshan Liu, Delaware State University, Dover DE, USA
Athena Makroglou, University of Portsmouth, Portsmouth, UK
Clint Mason, NIH/NIDDK, Phoenix AZ, USA
Pasquale Palumbo, Istituto di Analisi dei Sistemi ed Informatica “A. Ruberti”, Rome, Italy
Simona Panunzi, Istituto di Analisi dei Sistemi ed Informatica “A. Ruberti”, Rome, Italy
Grzegorz A. Rempala, Georgia Health Sciences University, Augusta GA, USA
Arthur Sherman, NIH/NIDDK Lab of Biological Modeling, Bethesda MD, USA
Xiangyun Shi, Xinyang Normal University, Xinyang, China
Xinyu Song, Xinyang Normal University, Xinyang, China
Andrew Thompson, Army Research Laboratory
Srirangapatnam G. Venkatesh, University of Louisville, School of Dentistry, Louisville KY, USA
Haiyan Wang, Arizona State University (West campus), Glendale AZ, USA
Minghu Wang, University of Louisville, Louisville KY, USA
David Webb, Army Research Laboratory

PROFESSIONAL AFFILIATIONS

American Society of Mathematics

Society of Mathematical Biology