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November 5, 2009

Yang Kuang, Professor of Mathematics

EDUCATION:

- Aug., 1985–July, 1988, **University of Alberta**, Canada, **Ph.D.**
- Nov., 1984–Aug., 1985, Mathematical Institute, Wolfson College, **University of Oxford**, U.K. (M.Phil. program)
- Aug., 1983–July, 1984, Applied Mathematical Institute of **Academic Sinica**, P.R.C.
- Aug., 1980–Aug., 1983; July, 1984–Nov., 1984, **University of Science and Technology of China**, P.R.C., **B.Sc.**

PROFESSIONAL EXPERIENCE:

- Arizona State University, July, 1997–Present, **Full Professor**.
- Arizona State University, June, 2002–May, 2005, **Associate Chair, director of graduate studies**.
- National Tsing Hua University, Taiwan, May, 1999–June, 1999, **Visiting Professor**.
- University of Shizuoka, Japan, July, 1995–Aug., 1995, **Visiting Professor**
- University of Urbino, Italy, June, 1995–July, 1995, **Visiting Professor**
- University of Arizona, May, 1994–Dec., 1994, **Visiting Professor**
- Arizona State University, July, 1992–June, 1997, **Associate Professor**
- Arizona State University, Aug., 1988–June, 1992, Assistant Professor
- University of Alberta, 1986–1988, Izaak Walton Killam Scholar
- University of Alberta, 1985–1986, Teaching Assistant
- University of Oxford, 1984–1985, Graduate Student and Research Assistant.

RESEARCH IMPACT:

1. **I have an h-index of 33.**
2. As of Oct. 15, 2009, according to MathSciNet, Yang Kuang is cited 1127 times by 668 authors in the MR Citation Database.
3. Top 6 cited items (including one book) according to google scholar, as of Oct. 15, 2009.

- (a) **Cited 1600+ times (listed under several titles).** Y. Kuang, 1993. Delay differential equations with applications in population dynamics. Mathematics in Science and Engineering, 191. Academic Press, Inc., Boston. xii+398 pp. ISBN: 0-12-427610-5.
- (b) **Cited 226 times.** Y. Kuang and B. Edoardo, 1998. Global qualitative analysis of a ratio-dependent predator-prey system. J. Math. Biol. **36**, 389-406.
- (c) **Cited 139 times.** S. B. Hsu, T.-W. Hwang and Y. Kuang, 2001. Global analysis of the Michaelis-Menten-type ratio-dependent predator-prey system, Journal of Math. Biol., **42**, 489-506.
- (d) **cited 120 times.** Y. Li and Y Kuang, 2001. Periodic solutions of periodic delay LotkaVolterra equations and systems, J. Math. Anal. Appl., **255**, 260-280.
- (e) **Cited 119 times.** B. Edoardo and Y. Kuang, 2002. Geometric stability switch criteria in delay differential systems with delay dependent parameters. SIAM J. Math. Anal. **33**, 1144-1165.
- (f) **Cited 114 times.** Y. Kuang and H. I. Freedman, 1988. Uniqueness of limit cycles in Gause-type models of predator-prey systems. Math. Biosci. **88**, 67-84.

SELECTIVE EDITORSHIP:

- 1. Mathematical Biosciences and Engineering, **editor-in-chief** (funding editor), 2003-.
- 2. Biology Direct, **associate editor**, 2007-.
- 3. Journal Of Computational And Applied Mathematics, advisory editor, 2008-
- 4. Discrete and Continuous Dynamical Systems (Series B), **associate editor**, 2000-.
- 5. Journal of Biological Systems, **associate editor**, 2004-.
- 6. International Journal of Biomathematics, **associated editor**, 2007-.
- 7. Pacific Journal of Applied Mathematics, **associated editor**, 2007-.
- 8. Bulletin of Biomathematics (in Chinese), **associate editor**, 1995-1997.
- 9. Proceedings of International Conference on Dynamical Systems and Differential Equations, (Springfield, 1996), **guest editor**.
- 10. Proceedings of International Conference on Mathematical Biology, (Guilin, 2002, Wuyi, 2008), **guest editor**.
- 11. Journal of Biomathematics(in Chinese), **associated editor**, 1997-2007.

CURRENT RESEARCH GRANTS (excluding pending proposals):

- 1. Sept. 15, 2009-Sept. 14, 2012, PI: Yang Kuang. \$498.9K. NSF Grant DMS- 0920744. Robust Theoretical Frameworks for Ecological Dynamics Subject to Stoichiometric Constraints. Funded by NSF programs in mathematical biology and environmental biology. **PI.**
- 2. July 1, 04-June 30, 10, DMS/NIGMS 0342388. Collaborative Research:Towards an Integrative Mechanistic Theory of Within-Host Disease Dynamics. **\$1.6 million. PI.**

3. Sept. 15, 04-Aug. 31, 10. UBM: Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences at ASU. DMS 0436341. **\$800,000. PI**
4. May 1, 04-April 30, 10, NSF TPC 0353470. Developing a Professional Learning Community Model for Secondary Precalculus Teachers: A Model for Teacher Professional Growth. **\$4.5 million. Co-PI**
5. Sept. 15, 04-Aug. 31, 12. NSF MSP 0412537. Project Pathways: A Math and Science Partnership Program for Arizona Targeted Project Track. **\$12.5 million. Senior personnel**

PAST RESEARCH GRANTS:

1. EMSW21-MCTP: Mentorship Through Research: A Model for an Emerging Urban American University.NSF. **\$399,930.** 05/01/05-07/31/09. **Co-PI**
2. Catalyst: Center for Excellence in Adaptive Neuro-Biomechatronic Systems (CEANS) NSF, **\$110,945.** 03/01/05-08/28/09. **Senior personnel**
3. 2002-2005, NSF INT-0203702. NSF-Chilean Joint Project: Some Aspects of the Qualitative Theory of Functional Differential Equations, Joint with Anatoli. Ivanov, (Penn State), Hal. Smith, **\$27,306. ASU PI**
4. Sept. 1, 2000-Aug. 31, 2005, NSF Grant DMS-0077790, **PI**, *Theoretical Frameworks for Ecological Dynamics Subject to Stoichiometric Constraints.* Amount: **\$314,994.** NSF mathematical biology (jointly supported by population biology and ecosystems).
5. 1993-1996, NSF Grant DMS-9306239, *Global qualitative analysis of ecological models with time delays and diffusions.* \$42,000. **PI**
6. 1991-1993, NSF Grant DMS-9102549, *Global qualitative analysis of ecological models with time delays and diffusions.* \$24,134. **PI**
7. 1990 CLAS Summer Research Award at Arizona State University. \$1,000. **PI**
8. 1989 CLAS Summer Research Award at Arizona State University. \$2,000. **PI**
9. 1989 Faculty Grant-in-Aid Award by Arizona State University. \$4,000. **PI**
10. 1986-89 Izaak Walton Killam Memorial Doctoral Study Research grant at University of Alberta. can\$1,500. **PI**

HONORS, AWARDS, SCHOLARSHIPS AND PRIZES:

1. 2008 Outstanding Graduate Mentor Award finalist, by the Graduate College of Arizona State University.
2. 2007 Outstanding Graduate Mentor Award finalist, by the Graduate College of Arizona State University.
3. 2000 Mentorship Appreciation Award, by the Graduate College of Arizona State University.
4. 1990 NSF Travel Award to ICM-90, Japan. \$2,000.

5. 1988 Andrew Stewart Graduate Research Prize for Doctoral Research by University of Alberta. can.\$2,500.
6. 1987 Graduate Research Travel Award by University of Alberta. can.\$500.
7. 1986-89 Izaak Walton Killam Memorial Doctoral Study Scholarship at University of Alberta. can.\$38,000.
8. 1984-86 Overseas Research Student Award, by University of Oxford. £4,000.

SELECTED RECENT (last 5 years) INVITED TALKS:

1. August 24, 2009. Plenary speaker at the Workshop for Young Researchers in Mathematical Biology, MBI, Ohio State University, Columbus.
2. June 19, 2009. Delivered an invited talk at the MTBI summer workshop.
3. October 24, 2008. Gave an invited talk at the AMS meeting in Huntsville.
4. October 16, 2008. Gave a colloquium at the Department of Biomathematics, UCLA.
5. October 15, 2008. Gave a math biology seminar at Georgia Institute of Technology (invited also to give a colloquium).
6. October 6, 2008. Gave an invited applied mathematics talk at University of Southern California.
7. September 18, 2008. gave a colloquium at University of Iowa.
8. June 9, 2008. Delivered an invited talk at the MTBI summer workshop.
9. June 6, 2008. Delivered an invited talk at the meeting on Mathematical Tools for Multi-Scale Biological Processes, held in Bozeman, MT.
10. May 19-20, 2008. Delivered two invited talks at the AIMS 7th meeting in Arlington, Texas.
11. May 2, 2008. Delivered an invited talk at the AMS regional meeting in Claremont Colloeges.
12. April 23, 2008. Delivered a colloquium at the department of mathematics of Claremont College.
13. April 22, 2008. Delivered an invited lecture at the department of mathematics of Pomona College.
14. April 11, 2008. Delivered a colloquium at the department of mathematics of University of Louisville.
15. March 1, 2008. Delivered an invited talk at the Arizona UNM days meeting at University of New Mexico, Albuquerque, New Mexico.
16. Oct. 5-7, 2007. Delivered an invited talk at the Meeting of Mathematical Modeling and Analysis of Populations in Biological Systems at University of Arizona, Tucson, Arizona.
17. June 25, 26, 2007. Delivered 4 invited lectures at the Delay differential mini-course at University of Utah, Salt Lake City, Utah.

18. June 13, 2007. MTBI summer workshop invited lectures.
19. May 29, 2007. Keynote speaker at the 4th International Mathematical Biology Conference, Wuyishan City, China, May 29-June 1.
20. May 23, 2007. Invited speaker at the EcoSummit, Beijing, China.
21. May 25, 2007. Invited lecture at Beijing University of Science and Technology, China.
22. April 11, 2007. Invited lecture at Iowa State University, Ames, Iowa.
23. Spet 29, 2006. Invited speaker at the Midwest Quantitative Biology Conference, Michigan State University.
24. Spet 18, 2006. Distinguished Mathematical Colloquium, The University of Texas-Pan American.
25. Aug. 2, 2006. SMB-SIAM life sciences joint annual meeting at Raleigh, North Carolina.
26. July 11, 2006. SIAM Annual Meeting, July 10-14, 2006, at the Boston Park Plaza Hotel and Towers in Boston, Massachusetts.
27. June 29, 2006. Invited global ecology workshop lecture. Mathematical Biosciences Institute, Ohio State University, Columbus.
28. June 4, 5, 2006. MTBI summer workshop invited lectures.
29. Nov. 21, 2005. Mathematical Biology Seminar. Mathematical Biosciences Institute, Ohio State University, Columbus.
30. Oct. 21, 2005. University of Nebraska, Lincoln, Mathematical Ecology Special Session, AMS regional meeting.
31. Aug. 28, 2005. Iowa State University, Ames, Iowa. Applied and Computational Mathematics Seminar.
32. April 18, 2005. University of California, Irvine. Applied mathematics colloquium talk.
33. April 9, 2005. Texas Tech University, Lubbock. AMS special session talk.
34. March 28, 2005. University of Michigan, distinguished mathematical biology talk.
35. March 4, 2005. California State University at Fresno, distinguished interdisciplinary mathematics talk.
36. Feb. 25, 2005. Colloquium talk. Purdue University.
37. Feb 11, 2005. Colloquium talk. Penn State University, College Station.
38. Society of Mathematical Biology Annual Meeting, July 25-28, 2004. University of Michigan.
39. AIMS' 5th International Conference on Dynamical Systems and Differential Equations, Pomona, June 16 - 19, 2004.
40. June 4, 2004. Colloquium talk. Stanford University.

41. March 4, 2004. Colloquium talk. University of Colorado, Boulder.
42. Jan. 31, 2004. Center for Nonlinear Studies, Los Alamos National Lab.
43. Oct. 15, 03, University of Michigan, distinguished mathematical biology talk.

COLLABORATED POSTDOCTORAL ASSOCIATES/VISITING PROFESSORS:

Supervised several postdoctoral associates: 1). Yunkun Li (01-02), 2). Tzy-Wei Hwang (02-03), 3). Meng Fan (03-04), 4). Hao Wang (07), 5). Craig Thalhauser (07), 6). Abdessamad Tridane (07-08), 7). Kaifa Wang (08-09).

GRADUATE STUDENT SUPERVISION:

Present Graduate Students

- Joshua McDaniel (US citizen). Co-advisor.
- Hao Liu.
- Aaron Packer.
- Angie McBryan.

Previous Students

• Past Ph.D students

(12) **Kevin Flores** (US citizen, Hispanic), Ph.D thesis defended on October 5, 2009. Title: *Multi-scale Modeling of Cancer*. Time to graduation is 5 years. He is a researcher at Mayo Clinic in Phoenix.

(11) **Sarah Hews** (US citizen), Ph.D thesis defended on July 13, 2009. Title: *Models Of Hepatitis B Virus Infection: A Study on Hepatocyte Proliferation Rates*. Time to graduation is 4 years. She is an assistant professor at Swarthmore College.

(10) **Yun Kang**, Ph.D thesis defended on May 23, 2008 (co-advisor). Title: *Dynamics of discrete plant-herbivore models*. Time to graduation is 4 years. She is an assistant professor at ASU-East.

(9) **Craig Thalhauser**, Ph.D thesis defended on July 30, 2007. Title: *A Two-State Model of Cancer Growth: Evolutionary Implications at the Local and Global Scales*. He is a postdoctoral fellow in University of California, Irvine. Time to graduation is 4 years.

(8) **Hao Wang**, Ph.D thesis defended on Nov. 30, 2006. Title: *Mathematical Analysis of Trophic Interactions: From Bacteria Competition to Lemming Cycles*. He held a joint assistant professor position in the school of Mathematics and Department of Biology in Georgia Tech. Will be assistant professor at University of Alberta, Canada. Time to graduation is 3.5 years.

(7) **Abdessamad Tridane**, Ph.D thesis defended on Oct. 18, 2006. Title: *Mathematical analysis of immunological and epidemiological models of influenza infection*. Time to graduation is 4 years. He is an assistant professor at ASU-East.

(6) **Clint Mason** (US citizen), Ph.D thesis defended on June. 7, 2006. Title: *Modeling glucose dynamics leading to a diabetic state with simulations performed from data on Pima indians*. He is a NIH postdoctoral fellow in NIDDK in Phoenix. Time to graduation is 3.5 years.

(5) **Roxana Lopez-Cruz**, Ph.D thesis defended on Feb. 7, 2006. Title: *Structured SI epidemic models with applications to Hiv epidemic*. Time to graduation is 4.5 years. She is a full professor and the director of the school of Mathematics of Universidad Nacional Mayor de San Marcos, Lima, Peru.

(4) **Dr Jiaxu Li**, Ph.D thesis at ASU: *The dynamics of glucose-insulin endocrine metabolic regulatory system*, Dec, 2004. He is currently an assistant professor at University of Louisville. Time to graduation is 3.5 years. (excluding time in industry).

(3) **Dr Chris Miller**, Ph.D thesis at ASU: *Modeling and analysis of stoichiometric two patch consumer-resource system*, Dec, 2002. Chris is now an assistant professor of the Department of Mathematics in Glendale Community College. Time to graduation is 3 years.

(2) **Dr Irakli Loladze**, Ph.D thesis at ASU: *The importance of being stoichiometric: Population dynamics from the perspective of chemical elements*, May, 2001. Irakli an assistant professor in the Department of Mathematics in Univ. Nebrasks at Lincoln in the Fall, 2003. Time to graduation is 3 years.

(1) **Dr. Bingtuan Li**, Ph.D thesis at ASU: *Analysis of chemostat-related models with distinct removal rates*, Aug. 1998 (Was a math. biol. postdoctor fellow at IMA (1998-1999), a research instructor at U. of Utah (1999-2001, working with Mark Lewis), now a professor at U. of Louisville). Time to graduation is 4 years.

- Was the chair of the M.Sc or M.N.S. committee for (1) Mr. Nejib Smaoui, (M.N.S.) graduated in May, 1990; (2) Mr. Samir Hammadi, (M.N.S.) graduated in May 1994; (3) Mr. Matthew Lyles, (M.A with a thesis) Analysis of a Ratio-Dependent Predator-Prey System with Two Patches, graduated in May 1997; (4) Mr. Travis Steele, (M.A with a thesis) An Analysis of a Ratio-Dependent Predator-Prey System with Competing Prey Species, graduated in Aug. 1997.; (5) Mr. Jay Wopperer, Thesis title: The Tuberculosis Endemic, Dec., 2002. (6) Andrew Jeanings, Master in passing, Aug. 2006 (US citizen). (7) Ron Ogborne, Master in passing, Aug. 2006 (US citizen). (8) Steffen Eikenberry, July, 2008 (US citizen). (9) Mathew Wienke, Aug. 2008 (US citizen). (10) Loan Nyugen, Nov. 2008. Co-advisor. (US citizen)
- Was a member of numerous M.Sc committees and a member of the following Ph.D. committees for (1) Mr. Jeffrey Kuo(1988-1990, Mech. Eng., graduated in Dec., 1990), (2) Mr. Steven Gustafson(1989-1990), (3) Mr. Tiemao Peng(1990-1991, Electr. Eng.), (4) Ms. Lan Xu(1991), (5) Ms. Hsiu-Rong Zhu(1989-1991). (6) Mr. Yuqin Zhang(1989-1993, Electr. Eng.), (7) Mr. Edisanter Lo(1990-1993), (8) Mr. Qi Zhao (1990-1992), (9) Mr. Zhongmin Liu(1991-1994), (10) Mr. Baorong Tang(1989-1995), (11) Ms. **Zhilan Feng**(1989-1994), (12) Mr. He-Yi Wu(1993-1995), (13) Mr. Tao Zhao(1991-1995), (14) Mr. Qian An(1993-1995), (15) Eric. Stemmon(1997-1998), and many many more.

GRADUATE COURSES TAUGHT:

- APM 533: Mathematical Biology, I (ODE, difference equation, delay equation and stochastic process models).
- APM 534: Mathematical Biology, II (PDE models).
- APM 535: Mathematical models in medicine.
- MAT 591: Industry Frontiers, seminar course.

- MAT 598: Applied Delay Differential Equations.
- MAT 591: Mathematical Biology Seminar.
- MAT 575: Advanced Ordinary Differential Equations II.
- MAT 574: Advanced Ordinary Differential Equations I.
- MAT 475: Differential Equations and Dynamical Systems.
- MAT 462: Partial Differential Equations.
- MAT 461: Applied Complex Analysis.
- MAT 460: Applied Real Analysis.
- MAT 451: Mathematical Population Dynamics.

SEMINARS ORGANIZED:

- Industry Frontiers, seminar course, 2002-2005.
- Mathematical Biology, 1988-.
- Mathematical Medicine, 2004-.

PROFESSIONAL ACTIVITIES:

(1): Presented numerous **invited and keynote** lectures at various universities, international and national conferences.

(2): Current and past member of the conference organizational and scientific committees for numerous national and international conferences, including the first SMB-CSMB meeting held in June, 2009, in China. I served as a co-chair of the International Conference on Mathematical Biology, Wuyi, China, May-June, 2007. I was a member of the conference organizational committee for the International Conference on Mathematical Biology, held in HangZhou, China, May 26-29, 1997 and Guiling, 2002.

(3): Organized the Workshop on Mathematical Models in Biology and Medicine at ASU in 2006.

(4): Organized many special sessions and mini-symposiums in international conferences (ICIAM-91, Washington, D.C.; Pacific Rim Dynamics Conf., Maui, 2000; SIAM Snowbird dynamical system conference, May 20-24, 2001; AMS-SIAM Annual Meeting, Jan. 6-9, 2004, Phoenix; Fifth AIMS conference, June 16-19, 2004, Pomona; WCNA 2004, June 30-July 7, 2004; Society of Mathematical Biology Annual Meeting, July 25-28, 2004), at ASU (Mini-symposium on Nonlinear Analysis and Biological Modeling, Oct. 13-14, 1992 at ASU), and at ASU (Mini-symposium on Math. Biol. and Delay Equations, May 27, 1996 at ASU).

(5): Refereeing numerous NSF proposals in U.S. and proposals from many other countries.

(6): Reviewing for Mathematical Reviews and ZENTRALBLATT.

(7): Refereeng book proposals for Academic Press, Prentice Hall, etc.

(8): Refereed a total of several hundreds papers for

Mathematical Biology related: 1) American Naturalist; 2) J. Math. Biol.; 3) Theoretical Population Biology; 4) Math. Biosci.; 5) Math. Biosc. Eng. ; 6) Applied Math. Letter; 7): Bull. Math. Biol.; 8)SIAM J. Appl. Math.; 9). J. Biological Systems; 10). J. Biological Dynamics, etc.

Applied Math.: 1) SIAM J. Math. Anal.; 2) J. Math. Anal. Appl.; 3) J. Differential Equations; 4) Canadian Applied Math. Quarterly; 5) Discrete and Continuous Dynamical Systems; 6) Proceedings of AMS; 7) Proceedings of Royal Soc. Edinburgh A.; 8) Nonlinear Analysis, ATM; 9) Rocky Mount. J. Math; 10) DCDS-B, etc.

PROFESSIONAL AFFILIATIONS:

Society of Integrative and Comparative Biology, 2005-
The American Association for the Advancement of Science, 2005-
Society for Mathematical Biology, 2000-
The New York Academy of Science, 1993-1994.
American Mathematics Society, 85-.
Canadian Mathematical Society, 86-88.
Canadian Applied Mathematical Society, 86-88, 92-94.
American Mathematical Association, 87-88.
Society for Industrial and Applied Mathematics, 87-88, 91-92, 2001-

DISSERTATIONS:

1. *Several Algorithms for Quadratic Programming and the Comparisons Among Them*, Thesis for B.Sc. in U. of Sci. & Tech. of China, 1984, (in Chinese), 44 pages.
2. *Limit Cycles in Gause-Type Predator-Prey Systems*, Ph.D. thesis, University of Alberta, Canada, 1988, 110 pages.

BOOKS, EDITED SPECIAL ISSUES:

1. Y. Kuang: *Delay Differential Equations with Applications in Population Dynamics*, volume 191 in the series of Mathematics in Science and Engineering, Academic Press. 1993. (398 pages)
2. Lansun Chen, Yang Kuang, Shigui Ruan and Glenn Webb, *Advances in Mathematical Biology*, a special issue (vol 4, #3, 2004) of DCDS-B.
3. Lansun Chen, Meng Fan, Yang Kuang and Huaiping Zhu, *Proceedings of 4th International Conference on Mathematical Biology*, a special issue (vol 1, issue 2, 2008) of *International Journal of Biomathematics (IJB)*.
4. Lansun Chen, Meng Fan, Yang Kuang and Huaiping Zhu, *Proceedings of 4th International Conference on Mathematical Biology*, a special issue (vol 1, issue 3, 2008) of *International Journal of Biomathematics (IJB)*.
5. Lansun Chen, Meng Fan, Yang Kuang and Huaiping Zhu, *Proceedings of 4th International Conference on Mathematical Biology*, a special issue (vol 38, issue 5, 2008) of *Rocky Mountain Journal of Mathematics*.
6. Carlos Castillo-Chvez, Christopher Kribs Zaleta, Yang Kuang and Baojun Song, *A tribute to the mathematical epidemiology work of Fred Brauer and Karl Haderler*, a special issue (vol 6, issue 2, 2009) of *Math. Biosci. Eng.*

REFEREED PUBLICATIONS:

122. K. Wang and Y. Kuang. Fluctuation and extinction dynamics in host-microparasite systems, in review.
121. Steffen E. Eikenberry, John D. Nagy, and Yang Kuang. The evolutionary impact of androgen levels on prostate cancer in a multi-scale mathematical model. *Biology Direct*, in review.
120. Y. Kang, D. Armbruster and Y. Kuang: Dynamics of plant-herbivore models with monotone plant growth rate, in review.
119. Y. Kang, D. Armbruster and Y. Kuang: A two patch model for plant-herbivore interactions, in review.
118. A. Tridane and Y. Kuang. Modeling the Interaction of Cytotoxic T Lymphocytes and Influenza Virus Infected Epithelial Cells, *Math. Biosc. and Eng.*, in press.
117. K. Wang and Y. Kuang. Novel dynamics of a simple *Daphnia*-microparasite model with dose-dependent infection, *DCDS-S*, in press.
116. Yu Zheng, Lequan Min, Yu Ji, Yongmei Su and Yang Kuang. 2009. Global stability of endemic equilibrium point of basic virus infection model with application to HBV infection, *Jrl Syst Sci & Complexity*, in press.
115. S. Hews, S. Eikenberry, J. D. Nagy and Y. Kuang. Rich dynamics of a Hepatitis B viral infection model with logistic hepatocyte growth, *J. Math. Biol.*, in press. DOI 10.1007/s00285-009-0278-3
114. Hao Wang, John D. Nagy, Olivier Gilg and Yang Kuang (2009). The roles of predator maturation delay and functional response in determining the periodicity of predator-prey cycles, *Math. Biosci.*, 221, 1-10.
113. Hao Wang, Katherine Dunning, J. J. Elser and Y. Kuang (2009). *Daphnia* species invasion, competitive exclusion, and chaotic coexistence, *DCDS-B*, 12, 481-493.
112. S. Eikenberry, T. Sankar, M. C. Preul, E. J. Kostelich, C. Thalhauser and Y. Kuang (2009). The virtual glioblastoma: growth, migration, and treatment in a three-dimensional mathematical model. *Cell Proliferation*, 42, 511-528. DOI: 10.1111/j.1365-2184.2009.00613.x
111. S. A. Gourley and Y. Kuang (2009). Dynamics of a neutral delay equation for an insect population with long larval and short adult phases, *J. Diff. Equations*, 246, 4653-4669. doi:10.1016/j.jde.2008.11.018
110. Eikenberry S, Thalhauser C, Kuang Y (2009) Tumor-Immune Interaction, Surgical Treatment, and Cancer Recurrence in a Mathematical Model of Melanoma. *PLoS Comput Biol* 5(4): e1000362. doi:10.1371/journal.pcbi.1000362.
109. Craig J. Thalhauser, Tejas Sankar, Mark C. Preul and Y. Kuang: Explicit separation of growth and motility in a new tumor cord model, *Bulletin of Math. Biol.*, 71, 585-601 (2009). DOI 10.1007/s11538-008-9372-8
108. Z. Jackiewicz, Y. Kuang, C. Thalhauser and B. Zubik-Kowal: Numerical solution of a model for brain cancer progression after therapy, *Math. Modelling and Anal.*, 14, 43-56 (2009).
107. S. Eikenberry, S. Hews, J. D. Nagy and Y. Kuang. The dynamics of a delay model of HBV infection with logistic hepatocyte growth, *Math. Biosc. and Eng.*, 6, 283-299 (2009).
106. J. Li and Y. Kuang: Systemically modeling the dynamics of plasma insulin in subcutaneous injection of insulin analogues for type 1 diabetes, *Math. Biosc. and Eng.*, 6, 41-58 (2009).
105. H. Wang, J. Li and Y. Kuang: Enhanced modeling of the glucose-insulin system and its applications in insulin therapies, *J. Biological Dynamics*, 3, 22-38 (2009).
104. Dunning, K. A., M. Kyle, Y. Kuang and J. J. Elser: A mathematical and empirical analysis of stoichiometric effects of light intensity on *Daphnia* dynamics and coexistence, *The J. Young Investigators*, vol. 19, issue 7, <http://www.jyi.org/research/re.php?id=1701> (2009).

103. H. Thieme, A. Tridane and Y. Kuang: An epidemic model with post-contact prophylaxis of distributed length. II. Stability and oscillations if treatment is fully effective, *Mathematical Modelling of Natural Phenomena*, **3**, 267-293 (2008).
102. S. Zhang, W. Ma and Y. Kuang: Necessary and sufficient conditions for global attractivity of Hopfield-type neural networks with time delays, *Rocky Mountain J. Math.*, **38**, 1829-1840 (2008).
101. L. Min, T.-W. Y. Su and Y. Kuang: Mathematical Analysis of a basic virus infection model with application to HBV infection, *Rocky Mountain J. Math.*, **38**, 1573-1585 (2008).
100. S.-B. Hsu, T.-W. Hwang and Y. Kuang: Global dynamics of a predator-prey model with Hassell-Varley type functional response, *Disc. Cont. Dyn. Sys., B*, **10**, 857-871 (2008).
99. H. Wang, Y. Kuang and I. Loladze: A mechanistically derived stoichiometric producer-grazer model, *J. Biological Dynamics*, **2**, 286-296 (2008).
98. L. Min, W. Li, Y. Su and Y. Kuang: A mathematical model of the dynamics for anti-HBV infection treatment with Peginterferon Alfa-2a, *Proceedings of the 2008 Int. Conference on Communication Circuit and Systems*, 1433-1436 (2008).
97. Y. Kang, D. Armbruster and Y. Kuang: Dynamics of a plant-herbivore model, *J. Biological Dynamics*, **2**, 89-101 (2008).
96. H. Thieme, A. Tridane and Y. Kuang: An epidemic model with post-contact prophylaxis of distributed length. I. Thresholds for disease persistence and extinction, *J. Biological Dynamics*, **2**, 221-239 (2008).
95. V. Shi, A. Tridane and Y. Kuang: A viral load-based cellular automata approach to modeling HIV dynamics and drug treatment, *J. of Theor. Biol.*, **253**, 24-35 (2008).
94. S. A. Gourley, Y. Kuang and J. D. Nagy: Dynamics of a delay differential model of hepatitis B virus infection, *J. Biological Dynamics*, **2**, 140-153 (2008).
93. H. Wang, H. Smith, Y. Kuang and J. J. Elser. Dynamics of stoichiometric bacteria-algae interaction in epilimnion, *SIAM J. Appl. Math.*, **68**, 503-522 (2007)
92. H. Wang, J. Li and Y. Kuang: Mathematical modeling and qualitative analysis of insulin therapies, *Math. Biosc.*, **210** (2007), 17-33.
91. Bingtuan Li and Y. Kuang. Heteroclinic bifurcation in the Michaelis-Menten type ratio-dependent predator-prey system, *SIAM J. Appl. Math.*, **67**, 1453-1464 (2007).
90. R. Lopez, Y. Kuang and A. Tridane. A simple SI model with two age groups and its application to USA HIV epidemics: to treat or not to treat?, to appear in *J. Biol. Syst.*, **15**, (2007) 169-184.
89. J. Li and Y. Kuang: Analysis of a model of the glucose-insulin regulatory system with two delays, *SIAM J. Appl. Math.*, **67**, 757-776 (2007).
88. G. Sui, M. Fan, I. Loladze and Y. Kuang: The Dynamics of a Stoichiometric Plant-Herbivore Model and Its Discrete Analog, *Math. Biosc. and Eng.*, **4**, 29-46 (2007).
87. H. Wang and Y. Kuang. Alternative models for cyclic lemming dynamics, (pdf2m). *Math. Biosc. and Eng.*, **4**, 85-99 (2007).
86. J. Zhang, M. Fan and Y. Kuang: Rabbits Killing Birds Revisited, *Math. Biosci.*, **203**, 100-123 (2006).
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2. Y. Kuang and C. McDiarmid: On the bandwidth of random graphs, *Ars Combinatoria*, **20-A**, 29-36 (1985).
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BOOK REVIEWS:

1. Book review in *J. of Difference Equations and Applications*, 561-562, **5**(1999).
2. Book review for *Method of Variation of Parameters for Dynamic Systems*, by V. Lakshmikantham and S. G. Deo, *SIAM Review*, **42**, 753(2000)
3. Book review for *Dynamical Systems and Their Applications in Biology* edited by Shigui Ruan, Gail S.K. Wolkowicz, and Jianhong Wu. *SIAM REVIEW*, 174-175, **46**(2004).

CONFERENCES:

1. Tenth British Combinatorial Conference, Glasgow, July, 1985.
2. The Fourth IMA Conference on Mathematical Theory of the Dynamics of Biological Systems, Oxford, July, 1986.

3. The XI International Conference on Nonlinear Oscillations, Budapest, August, 1987.
4. Special Sessions: Applications of Differential Equations to Population Ecology, Joint Mathematical Meetings of AMS and AMA, Atlanta, Jan. 1988 (Invited Speaker).
5. Geoffrey J. Butler Memorial Conference in differential Equations and Mathematical Biology, Edmonton, June, 1988.
6. Joint Mathematics Meetings of AMS and AMA, Phoenix, Jan. 11-14, 1989.
7. The Ninth Annual Southeastern-Atlantic Regional Conference on Differential Equations, University of North Carolina at Charlotte, Oct. 13-14, 1989(supported by the conference).
8. International Conference on Differential Equations and Applications to Biology and Population Dynamics, Claremont, California, Jan. 10-13, 1990.
9. SIAM Conference on Dynamical Systems, Orlando, Florida, May 7-10, 1990.
10. The International Conference on the Numerical Solution of Volterra and Delay Equations, Tempe, Arizona (ASU), May 25-28, 1990 (Invited Speaker).
11. Minisymposium "Delay Differential Equations in Population Dynamics", in the Second International Conference on Industrial and Applied Mathematics, Washington,D.C., July 8-12, 1991 (Minisymposium Organizer and Speaker).
12. Midwest Dynamical Systems Conference at Montana State University, Oct. 11-13, 1991(supported by the conference).
13. 20th Meeting, The Midwest Conference on Differential Equations, The University of Iowa, Dec. 6-7, 1991.
14. The Second Geoffrey J. Butler Memorial Conference on differential Equations and Mathematical Biology, Edmonton, June 17-20, 1992 (invited speaker).
15. Annual Meeting of Canadian Applied Math. Soc., North York, Ontario, May 30, June 2, 1993 (invited speaker)
16. International Conference on Differential Equations and Applications to Biology and Industry, Claremont, California, June 1-4, 1994 (invited half-hour speaker).
17. Summer Seminar on ODE and FDE 1995, Karuizawa, Japan, July 30-Aug. 1, 1995(invited main speaker, supported by the conference).
18. Mathematical Models in Population Dynamics, Logan, Utah, Aug. 17-19, 1995(invited contributing speaker, supported by the conference).
19. Volterra Centennial, Tempe, Arizona (ASU), May 27-30, 1996 (minisymposium organizer).
20. Mathematical Theory of Networks and Systems, St. Louis, Missouri, June 24-28, 1996(invited speaker in special session).
21. An International Conference on Differential Equations with Applications to Biology, Dalhousie University, Halifax, Nova Scotia, Canada, July 25-29, 1997. (invited speaker).

22. AMS regional conference, special session on mathematical biology, Nov. 13-15, 1998, Tucson.(invited)
23. Third international conference on dynamics and applications, May 26-29, 1999, Atlanta,(invited)
24. Pacific Rim Dynamical System Conference, Lahaina, Maui, Hawaii, Aug. 9-13, 2000, (invited minisymposium speaker and organizer)
25. The second annual genes to ecosystems project meeting, Lake Itasca, University of Minnesota Biological Station, MN Jan. 7-10,2001. (invited speaker)
26. Sixth SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah, May 20-24, 2001. (minisymposium organizer)
27. The third annual genes to ecosystems project meeting, Kingston, Oklahoma (Lake Texoma), University of Oklahoma Biological Station, Jan. 9-13, 2002.(invited speaker)
28. Workshop on Mathematical Models in Cancer, May 3-5, 2002, U. of Vanderbilt.
29. Annual meeting of the American Society of Integrative and Comparative Biology, Toronto, Jan. 5-9, 2003 (invited speaker)
30. The fourth annual genes to ecosystems project meeting, Guaymas, Mexico, March 16-21, 2003.(invited speaker)
31. The Fourth Geoffrey J. Butler Memorial Conference, June 17 - 21, 2003. University of Alberta, Edmonton, Alberta, Canada. (invited main speaker) Stoichiometry and biodiversity.
32. AMS regional meeting, Oct. 4-6, 2003, Boulder, CO. Invited Special session speaker.

Selected talks in the last 5 years are listed in a earlier section.