# **Tingxiu Wang**

#### 903.886.5958 (Office), E-mail: Tingxiu.Wang@tamuc.edu

#### **EDUCATION**

- Doctor of Philosophy in Mathematics, August 3, 1991. Southern Illinois University, Carbondale, IL Dissertation Advisor: Theodore A. Burton.
- Major: Differential Equations. Minor: Functional Analysis, Topology
- Master of Science in Mathematics, May 14, 1988. Southern Illinois University, Carbondale, IL.
- Bachelor of Science in Mathematics, July 21, 1982. Shandong University, Jinan, Shandong, P. R. China.
- Leadership Training:
  - ✓ Department Chairs Seminar, Council of Colleges of Arts and Sciences, Denver, July 9-11, 2009
  - ✓ PKAL Leadership Institute, Everglade, FL, January 2-7, 1999

### AWARDS

- Excellence in Teaching Award, Sigma Alpha Pi, the National Society of Leadership and Success, Texas A&M University-Commerce, 2016.
- Faculty Senate Outstanding Department Head Award, Texas A&M university-Commerce, 2016.
- Oakton Community College Faculty Fellowship, 2003
- The Project, Oakton Conference for Teaching Excellence (OCTE), won the 2003 Exemplary Initiative of the National Council of Instructional Administrators (NCIA), and the 2002 Innovation Award of ICCTA (Illinois Community College Trustee Association).
- Outstanding Faculty Member Award of the ICCTA, 1998
- Excellence Award of the National Institute for Staff and Organizational Development (NISOD), 1998
- Ray Hartstein Outstanding Teaching Award at Oakton Community College, IL, 1997. Only one fulltime faculty member receives this award each year.
- Excellent Instructor Award, Nanjing University of Science and Technology, China, 1984

# **EMPLOYMENT (36 YEARS OF EXPERIENCE IN HIGHER EDUCATION SINCE 1982):**

- Tenured Professor of Mathematics and Department Head, Texas A&M University-Commerce, August 2012—present.
- Tenured Professor of Mathematics, Missouri Western State University, St. Joseph, MO, Aug. 2008—Aug. 2012.
  ✓ Assistant Dean of College of Liberal Arts and Sciences, August 2011-August 2012.
  - ✓ Chair of the Department of Computer Science, Mathematics and Physics (CSMP), Aug. 2008--Aug. 2011
- Professor of Mathematics, Oakton Community College, Des Plaines, Illinois, Aug. 1999—Aug. 2008.
  - ✓ Director, Center for Promoting Science, Technology, Engineering and Mathematics (CP-STEM), 2006-2008.
  - ✓ Mathematics Placement Coordinator, 1994-2001.
- Associate Professor of Mathematics, Oakton Community College, Des Plaines, IL, Aug. 1995—Aug. 1999.
- Assistant Professor of Mathematics, Oakton Community College, Des Plaines, IL, Aug. 1991--Aug. 1995.
- Teaching Assistant, Math. Dept., Southern Illinois University at Carbondale, Aug. 1986--Aug. 1991.
- Full-time Teacher, Math. Dept., Nanjing Univ. of Science and Tech., Aug. 1982--Aug. 1986.

# FUNDED GRANTS (five NSF grants and two institutional grants with a total budget of \$2.1 million)

- Faculty Research Enhancement Grant (\$10,000) funded by the Office of Research and Sponsored Programs, Texas A&M University-Commerce in July 2014. This grant is to support the research, Boundedness of Differential Equations, and direct two undergraduate students on the research.
- PI for a National Science Foundation (NSF) S-STEM grant, DUE-0966120, \$599,600, Midwest Apex Project (MAP): Road MAP for Student Excellence in Science, Technology, Engineering and Mathematics. <u>https://www.nsf.gov/awardsearch/showAward?AWD\_ID=0966120</u>

- PI for an NSF STEP grant (DUE-0622329, \$999,988), Center for Promoting STEM: A Consistent District-Wide Approach to Increase STEM Enrollment and Student Success. https://www.nsf.gov/awardsearch/showAward?AWD ID=0622329
- Mini Grant (\$4800) 2007-2008 funded by Oakton Community College: Collaboration with Evanston High School STEM Teachers and Students through a Focused Conversation, Co-PI include G. Liu, J. Kotowski, and D. Rudden.
- PI for an NSF STEP grant (DUE-0230682, \$249,992), Partnership to Increase STEM Enrollment and Student Success. <u>https://www.nsf.gov/awardsearch/showAward?AWD\_ID=0230682</u> Accomplishments of this project include:
  - ✓ Won the 2005 Innovation Award of the Illinois Council of Community College Administrators (ICCCA) for the program: Student-Industry-Teacher Simulations
  - ✓ Won the 2003 Innovation Award of ICCCA for the program: Peer Tutor Training.
- Co-PI for the NSF CCLI grant (DUE-9751122, \$40,000), A Collaborative and Technological Environment for Teaching Mathematics: The project was to build a math computer lab for teaching with technology. https://www.nsf.gov/awardsearch/showAward?AWD\_ID=9751122
- Co-PI for the NSF grant (DUE-9652170, \$199,920, 1996-1999), A Team Approach to the Reform and Standardization of Core Courses in Sciences and Mathematics. https://www.nsf.gov/awardsearch/showAward?AWD\_ID=9652170

# UNIVERSITY AND DEPARTMENTAL SERVICES:

At Texas A&M University –Commerce (since August 2012):

- Contact Person for the New Mathways Project: Transfer Champions Initiative managed by the Charles A. Dana Center of the University of Texas at Austin, December 2013 –present.
- Graduate Council Member, August 2014—August 2017.
- Library Representative for the Math Department, Fall 2014-present.
- Mathematics Scholarship Committee (Chair), Fall 2013-present
- Math Graduate Advisor, Fall 2012-present
- Math Undergraduate Advisor, Fall 2012-present
- Maintain the Math Department Website, Fall 2012-present.
- Joined the ABET review for the department of computer science, Fall 2015-Fall 2016.
- Math Graduate Student Project Committee, whenever I am needed.
- LeoTeach Council, Spring 2013-Fall 2015.
- STEM Learning Community Committee, Spring 2015.
- University Advisory Committee, Fall 2013-Spring 0215.
- Council of Department Heads: meet once a month, since Fall 2012. I also served on the Summer Salary Model Subcommittee, April-December 2014.
- Physics Post-tenure Committee at TAMUC, Fall 2012
- Initiated and organize Adventure in Mathematics (AIM), which was selected as a finalist for the Tech Titans Award-Future University (<u>http://www.techtitans.org/</u>) in 2015.

At Missouri Western State University (August 2008-August 2012):

- Summer Research Institute Redesign Committee at MWSU, Aug-Dec., 2011
- Faculty advisor for 6 math majors
- Organized the Retreat of Computer Science, Mathematics and Physics on Feb. 19, 2011, at MWSU.
- Faculty Senator at MWSU, August 2009-August 2011. Serve as the senate liaison for the Evaluation of Faculty Committee.
- Engineering Technology Tenure and Promotion Committee for one faculty member, Fall 2010
- Engineering Technology Tenure and Promotion Committees for two faculty members, Fall, 2008
- Agenstein Hall to Remington Hall Move Phasing Committee, MWSU, 2008--2010
- Education Leadership Team, MWSU, 2008-2011

- Taught an online class of dual credit college algebra at Benton High School, 2011-2012.
- Guest speaker at Career Day of Robidoux Middle School, Jan. 16, 2009, and May 7, 2010
- Dual Credit Liaison
  - ✓ for St. Joseph Christian School, 2011-2012
  - ✓ for Excelsior Springs High School, 2010-2011
  - ✓ for Savannah High School, 2009-2010

At Oakton Community College (August 1991-August 2008):

- *Research and Development Committee 2006-2007* at Oakton. The committee serves as a central think tank, bringing together information and ideas to foster the development of new and revised curricula that address current and emerging workforce needs, employer demands, and student interests.
- *Self-Study Committee of Community Engagement and Services*, 2005- 2007: In 2007, Oakton Community College was re-accredited. To prepare for it, Oakton formed the Self-Study Committee, which consisted of five subcommittees. The subcommittee on which I served was to examine how Oakton has served its constituencies and will meet their needs in the future.
- Faculty Advisor for establishing a STEM Poster Competition of The Skyway Community College Conference, April 2007—August 2008. The Skyway Conference consists of eight community colleges in the Chicago area.
- *Special Events Consulting Group*, 2005- 2007 at Oakton: The Consulting Group is an advisory body that reviews college policies and proposals of specials events held at the college, and provides feedback and makes recommendations to the college.
- Search committee of Dean of Mathematics and Technology at Oakton, Spring 2005.
- Peer Evaluation Committee at Oakton, 2003, 2004.
- Member of the Oakton Education Policies and Procedures Task Force, 2004-2005: Being a member, I was in the Working Group of Testing and Prerequisites. The Group reviewed the current prerequisites, placement tests and assessment policies and procedures of the College and made recommendation to the College to simplify the procedures of placement and assessment for students. <u>www.oakton.edu/user/%7Egaryn/epp/</u>.
- Senator of Oakton Faculty Association for six years, June 1996—June 2000, June 2001—June 2003: I worked on the Election Committee to endorse candidates for trustees in the Oakton District. In 1997-1998, I was a member of the Negotiation Team of Oakton Faculty Association for the 1998-2002 Contract and worked with other two team members on working conditions.
- *Faculty Development Subcommittee*, 2001-2007: The subcommittee solicits and discusses ideas of faculty development activities and makes recommendation to the College to offer and implement the activities.
- Search Committee of the Mathematics Department at Oakton, 1998, 2000, 2001, 2002.
- Directed the Regional Mathematics Contest of Illinois Council of Teachers of Mathematics, hosted at Oakton Community College, 1997-2000.
- *Textbook and Syllabus Committee of the Mathematics Department*, 1999, 2000, 2003, 2005: The Committee revised course syllabi, reviewed textbooks and recommended textbooks to the Department for adoption. I worked on elementary algebra, intermediate algebra, college algebra, trigonometry, precalculus, calculus, ordinary differential equations, linear algebra, elementary statistics, finite mathematics and discrete mathematics.
- Faculty Advisor for the Club of Science, Technology, Engineering and Mathematics at Oakton, 2002--2008. Accomplishments include:
  - $\checkmark$  The Club has become a major club at Oakton with an annual budget of \$7,000.
  - Moderate the Student Mathematics League math competition of the American Association of Two Year Colleges (AMATYC). Oakton's rank has improved steadily, from 12th place in the Midwest region (Wisconsin, Illinois, Michigan, Indiana, Ohio and Kentucky) in fall 2002, to 2nd place out of 27 competing teams in fall 2004. Oakton's overall standing in the country also has improved, from 87th place in fall 2002 to 28th place in spring 2005.
  - ✓ Directed Oakton students for the math competition of the Illinois Section of the Mathematical Association of America: The Oakton team ranked fourth, tying with the team from the University of Illinois at Chicago in 2003, third in 2004, and 6<sup>th</sup> in 2006.

- ✓ Organized the CEO, Scholar and Expert Forum semiannually. Distinguished speakers at the Forum have included Congresswoman, Jan Schakowsky, representative for the 9<sup>th</sup> district in Illinois and Dr. Leon Lederman, 1988 Physics Nobel Laureate.
- Faculty Advisor for the Student Ping-Pong Club at Oakton, Spring 2002—Aug. 2008.
- Oakton Conference for Teaching Excellence, 2001-2006: This is an award winning project. I initiated and organized the conference, maintained the conference web site, made room reservations and arrangements, and published conference proceedings online and by CD-ROM.
- Academic Computing Committee, 1995-1999: the committee reviewed requests and budgets for software and hardware of the College and tested software.
- Promotion Committee at Oakton, 1995-1997

# INTERNATIONAL CONNECTION AND ENGAGEMENT:

- May 26, 2015: gave a talk at Huaiyin Normal University, Differences between American and Chinese Cultures
- March 6, 2015: As the contact person, coordinated the visit of Huanyin Normal University to Texas A&M University-Commerce. An MOU was signed.
- May 20-23, 2013: visited Guizhou Normal College, and gave the following presentations:
  - ✓ May 20: Studying at TAMUC
  - ✓ May 21: Careers for Students of Physics and Electronics Sciences
  - ✓ May 22: Differences between American and Chinese Cultures
  - ✓ May 23: Management of a Department at an American University
- May 15-24, 2012: Visited University of Jinan, Xidian University and Guizhou Normal College, and gave a presentation, Studying in America, at all the three institutions, discussed with international directors and deans of mathematics about their students studying in America.
- May 6-11, 2011: Visited Guizhou Normal College as a visiting professor, and gave a presentation, *Expectations and Requirements for Physics students of a State University of America*, to physics students of the School of Physics and Electronics, and a presentation, *American Math Jokes and Beyond*, to math students of the School of Math and Computer Science.
- The following activities were done at Guizhou Normal University
  - ✓ Co-PI for a grant of the Department of Education of China, *Enhancing Tourism in Guizhou Province and Developing College English Teaching Materials*, 2007-2010. PI is Professor Tao Zhao, Vice Dean of School of International Tourism and Cultures.
  - ✓ Enhanced a bilingual teaching program for undergraduate math students, 2005-2007.
  - Co-authored with Professor Xianchong Li, Vice Dean of Mathematics and Computer Science, and published a referred paper, *Bilingual Teaching and Its Assessment on Mathematical Thought and Appreciation*, Journal of Guizhou Normal University (Science Edition in Chinese), May (2007).
  - ✓ Submitted a proposal for developing a doctoral program in Curriculum and Instruction to the President Council, 2005-2007.
  - ✓ Presentation at the President Council, Accreditation of Higher Education in the USA, 2007
  - ✓ Presentation at the President Council, *How American Universities Recruit Best Students*, 2007.
  - ✓ Presented a talk to the faculty of Vocational Education, *American Community Colleges and Vocational Education*, 2007.
  - ✓ Presented a talk to graduate students of the School of Sciences, American Graduate Studies, 2007.
  - ✓ Coordinated and arranged the GZNU delegation visiting Oakton Community College and Southern Illinois University-Carbondale (SIU) in November, 2006. For further collaboration, they signed a Memorandum of Understanding with SIU and Letter of Intent with Oakton.
  - ✓ Attended and commented the Zunyi Regional Middle School Competition on Situational Teaching, 2006.
  - $\checkmark$  Attended the defense of theses for master degrees in math and computer science, since 2005.
  - ✓ Attended the Teaching and Research Plan meetings and reviewed the document, Policy of Teaching and Research, 2006.
  - ✓ Assisted developing an undergraduate program, actuarial science, 2005-2006.
  - ✓ Taught an undergraduate course: *Mathematical Thought and Appreciation*, 2005-2007.

- ✓ Presented a talk to graduate and undergraduate students of math and computer science, *Research Trends in Math Education*, May 2004.
- ✓ Directed a faculty seminar on Stability of Functional Differential Equations, fall 2004.
- *Global Studies Advisory Committee*, 2005-2008 at Oakton: The committee is to stimulate and support efforts to internationalize curriculum and the College environment in general, and to review courses proposed to meet the Contemporary Global Studies general education requirement and make recommendations to the Curriculum Committee.
- *Field study course: China and the Miao.* I led a group of Oakton students traveling in China, May 20-June 4, 2007. We visited Nanjing, Beijing, Xi'an, Guizhou Normal University and Shanghai.
- *Coordinated a faculty seminar: Chinese Culture*, fall 2006 at Oakton. Each week, I invited one speaker to talk about a topic on Chinese philosophy, history, letters, literature, music, instruments, arts, architecture, cooking, and medicine.

# UNDERGRADUATE RESEARCH

- Directed the following students on undergraduate research
  - o Guadalupe Baeza, The sunflower equation. 2018
  - Chris Johnston and Bradford Garcia, Applying Gronwall's Inequality to a System of Integral Equations, presented at the 95<sup>th</sup> Annual Conference of the Texas Section of the Mathematical Association of America (MAA), San Antonio, TX,, April 9-11, 2015.
  - Janelle Ferguson and Jeff Stevens, the Power of Power Series, presented at the 2012 annual meeting of the Missouri Section of MAA, University of Missouri-St. Louis, April 13-14, 2012.
  - Steve Brown, Estimate of Solutions of a General Integro-Differential Equation, 2010 MWSU Summer Research Institute
  - Elena Castanada, Rylan Sampson, Siya Sun, Inequalities of Solutions of a Scalar Nonlinear Integrodifferential Equation, presented at the 2010 annual meeting of the Missouri Section of MAA.
  - Marisol Rubio, Ka Lou Cheong, Avinash Nath, Identifying the Causes for Common Procedural and Conceptual Errors among First Year Calculus Students, presented at the 2003 annual meeting of the Illinois Section of MAA.

# **PROFESSIONAL ORGANIZATION INVOLVEMENT:**

- Liaison between the Texas Association of Academic Administrators in the Mathematical Sciences and the Texas Higher Education Coordinating Board, Since May 2018.
- President-elect (2016-2017) and president (2017-2018) of the Texas Association of Academic Administrators in the Mathematical Sciences.
- Presented at the Texas Education Center, Regional 8 Professional Development Workshop: Looking at Proportional and Algebraic Reasoning from the Top Down, July 28, 2016.
- AP Calculus Reader since 2001.
- *The AMATYC Website coordinator*, Nov. 2003-Nov. 2007. AMATYC is the acronym of the American Mathematical Association of Two Year Colleges (<u>www.amatyc.org</u>).
  - ✓ Accomplishment: Redesigned the entire website to improve its online services. During my term, the number of visits of the website increased more than 200%.
- Project Kaleidoscope (<u>www.pkal.org</u>)
  - ✓ PKAL class of 1996, Faculty for the 21st Century of Project Kaleidoscope (PKAL).
  - ✓ Advisory Board Member of the PKAL project, Encouraging Collaborations for Developing Undergraduate STEM Faculty
  - ✓ Member of PKAL F21 Leadership Institute Steering Committee
  - ✓ Member of Chicagoland Planning Committee, 2006 PKAL Annual Assembly, Chicago, October 6-8, 2006.
  - ✓ 10x10 Assembly: Infusing a Global Dimension into Undergraduate STEM Programs, University of California at Irvine, November 14-16, 2003.
  - ✓ 10x10 Assembly: Motivating Students to Pursue Careers in STEM Fields, Oberlin College, Sept. 5-7, 2003.
  - ✓ PKAL Change Agent Round Table, ExxonMobil Corporate Headquarters, Irving, TX, March 2–4, 2001

- ✓ The National Assembly of PKAL, University of Maryland, College Park, MD, October 1999.
- ✓ PKAL Leadership Institute, Everglade, FL, January 2-7, 1999.
- ✓ The National Assembly of PKAL, Chicago, IL, Sept. 17-19, 1998.
- ✓ Host Site Committee for the 1998 PKAL F21 National Assembly.
- ✓ Eastern Midwest Regional Gathering of PKAL, St. Mary's College, South Bend, IN, March 22, 1997.
- ✓ The National Assembly PKAL, Kansas City, October 11-13, 1996.
- Member of the American Mathematical Association of Two-Year Colleges, since 2000.
- Member of American Mathematical Society, since 1990.
- Member of Mathematical Association of America, since 1987.
- Founding member of the Society of Chinese American Professors and Scientists, since 2003, and council member between 2006-2010.
- President of the Oversea Chinese Society for Industrial and Applied Mathematics, 2002-2004.
- Vice President of the Oversea Chinese Society for Industrial and Applied Mathematics, 2000-2002.

# **COURSES TAUGHT**

- At Texas A&M University: Precalculus, Calculus II, Calculus III, Linear Algebra, Differential Equations, Discrete Mathematics. Differential and Integral Inequalities (taught for students of independent study)
- At Missouri Western State University: Advanced Calculus, Integro-differential Equations, Introduction to Partial Differential Equations, Calculus I, II, III, Precalculus, Finite Math, College Algebra, Trigonometry, Elementary Statistics, Mathematical Connections from an Advanced Perspective (on Differential and Integral Inequalities).
- At Oakton Community College: Ordinary Differential Equations, Linear Algebra, Calculus I, II and III, Business Calculus, Elementary Statistics, Finite Mathematics, Precalculus, Trigonometry, College Algebra, Intermediate Algebra, Elementary Algebra, Arithmetic. Directed independent study on Set Theory, Plenary Topology, and Introduction to Analysis.
- At Southern Illinois University: Finite Mathematics, Business Calculus.
- At Nanjing University of Science and Technology: Calculus, Advanced Calculus, Linear Algebra, Introduction to Real Analysis, Introduction to Complex Analysis.
- At Guizhou Normal University: Mathematical Thought and Appreciation. Directed a faculty seminar on Stability of Functional Differential Equations.

#### **REFEREE/REVIEWER FOR GRANTS, JOURNALS, CONFERENCES AND ORGANIZATIONS:**

- Mathematical Reviews, have reviewed 79 papers since November 2004. http://www.ams.org/mathscinet/search/publications.html?pg1=RVRl&s1=328263&pg3=authreviews
- National Science Foundation, Grant review panel, June, 2018
- National Science Foundation, S-STEM Grant review panel, September, 2014.
- National Science Foundation. STEP grant review panel, November 2008
- Upward Bound, the US Department of Education, March 26-March 30, 2012.
- Guest Editor for Volume 20, Number 1 (2013), the journal of Dynamics of Continuous, Discrete and Impulsive Systems, Series A: Mathematical Analysis. <u>http://online.watsci.org/contents2013/v20n1a.html</u>
- Refereed for the following journals once or a few times: Acta Mathematica Scientia, Arabian Journal for Science and Engineering, Journal of the Franklin Institute, Computers and Mathematics with Applications, Applied Mathematics Letter, Electronic Journal of Qualitative Theory of Differential Equations, Journal of Mathematical Analysis and Applications, AMATYC Review.
- Third International Conference on the Teaching of Mathematics, Istanbul, Turkey, July 2006. Reviewed 12 papers.
- The Second International Conference on the Teaching of Mathematics, Crete, Greece, July 2002. Reviewed 17
  papers. <u>http://www.math.uoc.gr/~ictm2/commi.html</u>
- Symposium on Comparison Methods and Stability Theory, Waterloo, Ontario, Canada, June, 1993.
- First World Congress of Analysts, Tampa, Florida, August, 1992.

# **REVIEWED THE FOLLOWING 16 TEXTBOOKS:**

- College Algebra and Trigonometry by Miller and Gerken, published by McGrow Hill, July 2016.
- Pearson Higher Education Focus Group reviewing the textbook, Precalculus, written by Trigsted (November 12, 2010) at the AMATYC 36<sup>th</sup> Annual Conference.
- **Technical Mathematics with Calculus**, 6<sup>th</sup> edition, written by Paul A. Calter and Michael A. Calter, published by John Wiley & Sons, Feb.-August 2010.
- Calculus: One and Several Variables: Early Transcendentals, 10th edition, written by Salas/Hille/Etgen, published by John Wiley & Sons, August 2008.
- Briggs/Cochran Calculus Focus Group at the AMATYC Annual Conference, Nov.1, 2007.
- Precalculus, sixth edition written by Barnett/Ziegler/Byleen, published by McGraw-Hill, in March 2007.
- Linear Algebra written by Giovanni Viglino, published by Pearson Prentice Hall, August 2006.
- College Algebra and Trigonometry, written by Cynthia Young, published by John Wiley and Sons, August 2006.
- **Differential Equations: An Introduction to Modern Methods and Applications**, by Jim Brannan and William Boyce, published by John Wiley & Sons Inc. 2005.
- Intermediate Algebra: A Functions Approach by Michael Sullivan III and Katherine Struve, published by Prentice Hall 2005.
- Elementary Linear Algebra, 3<sup>rd</sup> edition written by Friedberg/Insel/Spence, published by Prentice Hall, 2005.
- Elementary Statistics: Picturing the World, 2<sup>nd</sup> edition, by Larson and Farber, published by Prentice Hall, 2001.
- Elementary Statistics: A Step by Step Approach, 4<sup>th</sup> edition, written by Allen G. Bluman, published by McGraw-Hill Companies, Inc., 2000.
- Freshman Business Math: A Conceptual, Excel-based Approach, written by Lehmann and Zeitz, published by John Wiley & Sons, Inc. 2000.
- Calculus, 2nd edition, written by G. L. Bradley and K.J. Smith, published by Prentice Hall, 1998.
- Calculus written by G. L. Bradley and K. J. Smith, published by Prentice Hall, 1995.

# EVENTS ORGANIZED/COORDINATED

- 2018: Local site host coordinator for Student Competition Using Differential Equation Modeling (SCUDEM)
- 2017: Chair for the Local Committee of the 97<sup>th</sup> Annual Meeting of the Texas Section of the Mathematical Association of America, held at Texas A&M University-Commerce, March 30-April 1, 2017.
- 2015: organized the 9th International Conference on Differential Equations and Dynamical Systems, May14-16, 2015, Dallas, Texas. <u>http://www.watsci.org/deds2015/</u>
- 2013: Member of the Scientific Committee for the 2nd International Workshop on Nonlinear and Modern Mathematical Physics, Tampa, FL, March 9-11, co-organized by University of South Florida and University of Central Florida. <u>http://www.math.usf.edu/2ndNMMP/committees/</u>
- 2012: Member of the Global Organization Committee of the 8th International Conference on Differential Equations and Dynamical Systems, August 1-4, 2012, Waterloo, Canada. Organize a special session on the Qualitative Properties and Applications of Functional Differential Equations. http://www.watsci.org/deds2012/index.htm
- 2010: Member of the Global Organization Committee of the 7th International Conference on Differential Equations and Dynamical Systems, Dec. 15-18, Tampa, FL. Organize a special session on the Qualitative Properties and Applications of Functional Differential Equations. <u>http://www.math.usf.edu/7thde/</u>
- 2006: Member of the Program Committee for the 3<sup>rd</sup> International Conference on the Teaching of Mathematics, Istanbul, Turkey, June 30-July 5. Responsibilities: contacted commercial companies for co-sponsorship, invited speakers, distributed the conference announcement and refereed conference proceedings. http://nuclphys.sinp.msu.ru/math/conf/tmul.htm
- 2006: Organized a panel session, Advice and Admonitions for NSF Projects: What Worked, What Did Not, and What We Learned, at the MAA Joint Annual Conference, January 12-15.
- 2005: Member of the Global Organization Committee of the International Workshop on Differential Equations and Dynamical Systems (<u>http://monotone.uwaterloo.ca/~journal/deds05.htm</u>), held at University of Guelph, Guelph, Canada, July 29-31.

- Initiated and organized the Oakton Conference for Teaching Excellence, 2002-2006.
- *Member of the Program Committee for the 2nd International Conference on the Teaching of Mathematics*, Crete, Greece, July 1—6, 2002. Responsibilities: contacted commercial companies for co-sponsorship, invited speakers, distributed the conference announcement and refereed conference proceedings. <u>http://users.math.uoc.gr/~ictm2/</u>
- *Co-organized the session, Multimedia and Mathematics Education* at the MahtFest of MAA held in Toronto, Canada, July 15-18, 1998.
- *Co-organized the session, Innovative Teaching Ideas for Undergraduate Mathematics* at the MahtFest of MAA held in Atlanta, Aug. 1-4, 1997.
- Hosted the Spring Conference of the Association of Chinese Scientists and Engineers, 1999-2003.

# **COMMUNITY SERVICES**

- Editor for the Newsletter of the Association of Chinese Scientists and Engineers (ACSE) in 1998-2000, and Editor-in-chief, PIONEERS, an ACSE magazine, 1999—2001.
   Accomplishment: the 2000 Outstanding Service Award of (ACSE).
- Vice president in 1999-2000 and Board member in 1998-2000 of ACSE.
- Vice President, Glenlake Townhome Association, Glenview, IL 1996-1998.

### FIELDS OF RESEARCH AND TEACHING INTERESTS

- Stability, boundedness, periodicity and applications of ordinary, partial and abstract functional differential equations.
- Pedagogy and Student Learning.
- Teaching with Technology (TI-83/84/89/92, Derive, Mathematica, WWW, CD-ROM, Excel), online teaching.

### PUBLICATIONS (peer refereed papers)

- Wang, T. A Nonlinear Volterra-type Integral Inequality. *The Journal of Nanjing University of Information Science* & *Technology*. 2017 (4): 391-394. http://nxdxb.cnjournals.org/ch/reader/view abstract.aspx?file no=20170405&flag=1
- 2. Wang, T., *Generalization of Gronwall's Inequality and Its Applications in Functional Differential Equations*, Communication in Applied Analysis, 19(2015), 679-688.
- 3. Wang, T., *Lower and Upper Bounds of Solutions of Functional Differential Equations*, Dynamics of Continuous, Discrete and Impulsive Systems; Series A: Mathematical Analysis 20 (2013) 131-141.
- 4. Zhao, T., & Wang, T. *Enhancing International Tourism in Guizhou*, Journal of Guizhou Normal University (Education Science Edition in Chinese), No.1, 2010. pp.177-181.
- 5. Wang, T., *Inequalities of solutions of Volterra integral and differential equations*, E. J. Qualitative Theory of Diff. Equ., Spec. Ed. I, 2009 No. 28., pp. 1-10.
- 6. Wang, T., *Some General Theorems on Uniform Boundedness for Functional Differential Equations*, **CUBO**, **a Mathematical International Journal**, Vol.11, No 3, (25–40). August 2009.
- 7. Li, X. & Wang, T. *Bilingual Teaching and Its Assessment on Mathematical Thought and Appreciation*, Journal of Guizhou Normal University (Education and Science Edition in Chinese), pp26-29, No. 2, 2007.
- 8. Wang, T., *Exponential Stability and Inequalities of Abstract Functional Differential Equations*, Journal of Mathematical Analysis and Applications, Vol.342, No.2, pp982-991, (2006).
- 9. Wang, T., *Inequalities and Stability in a Linear Scalar Functional Differential Equation*, Journal of Mathematical Analysis and Applications, Vol.298, No.1, pp33-44, (2004).
- 10. Wang, T., *Myths in the Math Education in the USA*, **Trends and Challenges in Mathematics Education**, edited by Jianpan Wang and Binyan Xu, East China Normal University Press, pp117-127 (2004)
- 11. Wang, T., *Bounded Solutions and Periodic Solutions in Integral Equations*, **Dynamics of Continuous**, **Discrete**, **and Impulsive Systems**, pp19-31, **7**(2000)
- Wang, T., Wazewski's Inequality in a Linear Volterra Integro-differential equations, Volterra Equations and Applications, the book: Volterra Equations and Applications, edited by C. Corduneanu and I.W. Sandberg, Vol. 10: Stability and Control: Theory, Methods and Applications, published by Gordon and Breach Science Publishers, pp483-492, (2000).

- 13. Wang, T., *American Community Colleges and Community Education* (in Chinese), **Journal of Western Returned Scholars Association**, No.26, (1999).
- 14. Wang, T., Periodic Solutions and Liapunov Functionals, Boundary Value Problems for Functional Differential Equations, Edited by J. Henderson, World Scientific, pp.289-299, (1995).
- 15. Wang, T., Uniform Asymptotic Stability with Weaker Decrescentness, Communications on Applied Nonlinear Analysis, No.2, pp.59-77, 2(1995)
- 16. Wang, T., Uniform Boundedness with the Condition  $V'(t,X_t) \le \eta(t)W_1(m(X_t)) W_2(D(t,X_t)) + M$ , Nonlinear Analysis, No.6, pp.581-590. Vol.25(1995)
- 17. Wang, T., Consistent Rules, Mathematics Teacher, Vol.88, No.8, page 720. Nov.(1995)
- 18. Wang, T., Weakening the Condition  $W_1(|X(0)|) \leq V(t, X_t) \leq W_2(||X_t||)$  for Uniform Asymptotic Stability, Nonlinear Analysis, No.2, pp.251-264, Vol.23 (1994).
- 19. Wang, T., Stability in Abstract Functional Differential Equations, Part I: General Theorems, J. Math. Anal. Appl., No.2, pp.534-558, Vol.186 (1994).
- 20. Wang, T., Stability in Abstract Functional Differential Equations, Part II: Applications, J. Math. Anal. Appl. No.3, pp.835-861, Vol.186(1994).
- 21. Wang, T., *Upper Bounds for Liapunov Functionals, Integral Lipschitz Condition and Asymptotic Stability*, **Differential and Integral Equations**, No.2, pp.441-452, **Vol. 7**(1994).
- 22. Wang, T., *Asymptotic Stability and the Derivatives of Solutions of Functional Differential Equations*, Rocky Mountain Journal of Mathematics, No. 1, pp.403-427, Vol. 24(1994).
- 23. Wang, T., Using a Computer Algebra System in Teaching Mathematics, **PRIMUS**, Vol.IV, No.3, pp.284-300, Sept.(1994).
- 24. Wang, T., *Critical Thinking and Teaching with Derive*, **Collegiate Microcomputer**, **Vol. XI**, No. 4, pp.240-244, November(1993).
- 25. Wang, T., What is "Exact", Mathematics Teacher, Vol. 86, No. 8, pp.699-700, November(1993).
- 26. Wang, T., Assigning Homework, Mathematics Teacher, Vol. 86, No. 4, p.272, April(1993).
- 27. Wang, T., *Equivalent Conditions on Stability of Functional Differential Equations*, J. Math. Anal. Appl., Vol.170, No. 1, pp.138-157, October(1992).
- 28. Wang, T., On the Boundedness of the Solutions of Systems of Ordinary Differential Equations, Journal of Nanjing University of Science and Technology, p.54-62, 4(1987).
- 29. Wang, T., *The Norm Estimates for the Solutions of a Type of Nonautonomous Nonlinear Systems*, Journal of Nanjing University of Science and Technology, p.23-33, 2(1987).
- 30. Wang, T., A Note on Stability of Trivial Solution of a Type of Nonautonomous Nonlinear Systems, Journal of Nanjing University of Science and Technology, p.32-42, 1(1986).
- Wang, T., A Counterexample on Linear Homogeneous Difference Equations, Proceedings of Scientific Conference of Nanjing University of Science and Technology, No.279 (1983).

#### **PUBLICATIONS (Other articles)**

- 1. Wang, T. Why Study Mathematics, Chapter Eight of the book, Mathematics for the Curious: Why Study Mathematics, edited by Kishor Vaidya at University of Canberra, Canberra, Australia; published by The Curious Academic Publishing, Sept. 2015; available on Amazon <u>http://bit.ly/mymathematics</u>.
- Anderson, K.; Miller, T.; and Wang, T.; *Classifying Students' Mistakes in Handheld Devices*, Electronic Proceedings of the Twenty-first International Conference on Technology in Collegiate Mathematics, Orlando, Florida, 2009. <u>http://archives.math.utk.edu/ICTCM/VOL21/S095/paper.pdf</u>
- 3. Wang, T., *Techniques on Partial Fractions*, AMATYC Electronic Proceedings, 2007. http://www.amatyc.org/?page=2007ConfProceedings
- 4. Wang, T., Liu, G., and Kotowski, J., Promoting SML and STEM, AMATYC Electronic Proceedings, 2006
- 5. Wang, T., AMATYC Website Is Popular, AMATYC News, Vol.20, No.2 (2005), p.7.
- 6. Wang, T., AMATYC Website Statistics, AMATYC News, Vol. 19, No.3 (2004), p.7.
- Wang, T., On Applying for the National Science Foundation Grants, Symposium of Being Professors in the USA, May, 2003. <u>http://www.usa-chinese.com/index.php?categoryid=75&m2004\_articleid=6&moduleid=2004</u>

- 8. Wang, T., Stories about the Art and Skill of Teaching, Interface of Oakton Community College, Winter (2001).
- 9. Wang, T., Response on a New Form for Consistent Rules, Mathematics Teacher, Vol.89, No.6, p.500, (1996)
- 10. Wang, T., Why Do We Need to Learn This, Interface of Oakton Community College, Winter(1995).
- 11. Wang, T., *Newton's Method*, **Symbolic Excursions: Student Activities with Computer Mathematics Systems**, Edited by Constance Elson and Stan Seltzer, Ithaca College, New York, (1993).

### **INVITED PRESENTATIONS**

I have been invited almost every year to present on differential equations. Due to conflicts with my other responsibilities, I can only attend some of them. Since 1993, have delivered the following invited presentations:

- 1. 2013: The 2nd International Workshop on Nonlinear and Modern Mathematical Physics, Tampa, FL, March 9-11. Presentation: Boundedness of Nonlinear Volterra Integro-differential Equations.
- 2. 2012: The 8<sup>th</sup> International Conference on Differential Equations and Dynamical Systems, University of Waterloo, Canada, Aug. 1-4. Presentation: Lower and Upper Bounds of Functional Differential Equations.
- 2010: The 7<sup>th</sup> International Conference on Differential Equations and Dynamical Systems, Univ. of South Florida, Dec. 15-18. Presentation: Inequalities of Functional Differential Equations by Lyapunov's Second Method,
- 4. 2003: the special session on "Qualitative Properties and Applications of Functional Equations" for the 2003 Spring Western Section Meeting of the AMS, San Francisco State University, May 3-4.
- 5. 2002: ICM-2002 Satellite Conference on Mathematics Education, Tibet University, Tibet, China, Aug. 12-17.
- 6. 1996: Volterra Centennial Symposium, Arlington, Texas, May 23-25.
- 7. 1995: special session on Periodic and Almost Periodic Solutions of Differential and Functional Equations for the 900th meeting of AMS, Chicago, March 24-25.
- 8. 1995: special session on Nonlinear Dynamics for the annual meeting of AMS, San Francisco, January 4-7.
- 9. 1993: Symposium on Comparison Methods and Stability Theory, University of Waterloo, Canada, June.
- 10. 1993: Special Session of AMS, Integro-differential equations: stability and control, San Antonio, Texas, January.

#### **CONFERENCE PRESENTATIONS:**

- 2017: Tingxiu Wang. Modeling the Financial Stock Market with Functional Differential Equations. AMS Spring Western Sectional Meeting, Washington State University, Pullman, WA April 22-23, 2017 (Saturday - Sunday) Meeting #1128. <u>http://www.ams.org/meetings/sectional/2230\_program.html</u>
- 2016: Tingxiu Wang. International Difference on the Teaching of Some Mathematics Topics. The Annual Conference of the Texas Section of the Mathematical Association of America, Nacogdoches, TX, March 31-April 2.
- 3. 2015: Johnston, C.; Garcia, B.; Wang, T.; A Nonlinear Volterra-type Integral Inequality, the 9<sup>th</sup> International Conference on Differential Equations and Dynamical Systems, Dallas, TX, May 14-16.
- 4. 2015: Tingxiu Wang. On Gronwall's Inequalities, the Annual Conference of the Texas Section of the Mathematical Association of America, San Antonio, TX, April 9-11.
- 5. 2013: Tingxiu Wang. Boundedness of Nonlinear Volterra Integro-differential Equations. The 2nd International Workshop on Nonlinear and Modern Mathematical Physics, Tampa, FL, March 9-11.
- 6. 2013: Tingxiu Wang. Estimate Solutions of Functional Differential Equations by Lyapunov's Second Method. The 93<sup>rd</sup> Texas MAA meeting, Texas Tech University, April 11-13, 2013.
- 7. 2012: Tingxiu Wang. Lower and Upper Bounds of Functional Differential Equations. The 8<sup>th</sup> International Conference on Differential Equations and Dynamical Systems: University of Waterloo, Canada, Aug. 1-4, 2012.
- 8. 2012: Tingxiu Wang. Estimate Solutions of Functional Differential Equations. The Annual Conference of the Missouri Section of Mathematics Association of America: University of Missouri-St. Louis, (April 12-14, 2012).
- 2011: poster presentation at the 37<sup>th</sup> Annual Conference of the American Mathematical Association of Two Year Colleges: Midwest Apex Project: Road MAP for Student Excellence in STEM, Nov. 10-13, 2011.
- 10. 2010: The 7<sup>th</sup> International Conference on Differential Equations and Dynamical Systems: Inequalities of Functional Differential Equations by Lyapunov's Second Method, University of South Florida, Dec. 15-18.
- 11. 2010: K. Anderson, and T. Wang, the 36<sup>th</sup> Annual Conference of the American Mathematical Association of Two Year Colleges: Methods and Examples That Engage and Entertain Students, Boston, Nov. 11-14.

- 12. 2010: Annual Conference of the Missouri Section of Mathematics Association of America: Inequalities by Lyapunov's Second Method, University of Central Missouri, April 9-10.
- 13. 2009: Guizhou Normal University, China: "Methods Beyond Textbooks of Calculus and Precalculus" and "On American Mathematics Education", May13-23.
- 14. 2009: Minxi Vocational Technology Institute, China: "Critical Thinking with Graphing Calculators", May 12.
- 15. 2009: Anderson, K., Miller, T., Wang, T., Missouri Western Mathematics Workshop, "Critical Thinking with Graphing Calculators", Missouri Western State University, April 24.
- 16. 2009: Annual Conference of the Missouri Section of Mathematics Association of America: Uniform Boundedness of Functional Differential Equations, April 16-18.
- 2009: Anderson, K., Miller, T., Wang, T., 21st Annual International Conference on Technology in Collegiate Mathematics, "Classifying Students' Mistakes in Hand-held Devices," Pearson Education, New Orleans, LA, March 12-15.
- 18. 2008: Annual Meeting of the Illinois Section of the MAA at Eastern Illinois University, April 4-5. Presentation: *Differences between STEM Students and Non-STEM Students at Oakton Community College.*
- 19. 2007: AMATYC Annual Conference in Minneapolis, Oct.31-Nov.1. Presentation: *Techniques on Partial Fractions*.
- 20. AMATYC Annual Conference in Cincinnati, Nov. 2-5, 2006. Presentation: Promoting STEM and SML.
- 21. PKAL Annual Assembly, held at Sheraton Chicago Northwest, Arlington Heights, IL, October 4-6, 2006. Panel Session: *The urgency of coming together to transform undergraduate STEM education*.
- 22. Joint Meetings of AMS and MAA, January 12-15, 2006. Panel Session: "Advice and Admonitions on NSF Projects: What Worked, What Did Not, and What Lessons Were Learned."
- 23. Southeastern Atlantic Region Conference on Differential Equations, University of Dayton, October 7-8, 2005. Presentation: *Exponential Stability and Inequalities of Partial Functional Differential Equations*.
- 24. Joint Meetings of AMS and MAA, January 2005. Poster presentation: *Partnership to Increase STEM Enrollment and Student Success*.
- 25. MAA MathFest in Providence, Rhode Island, in August, 2004. Presentation: "The NSF Project: What Worked, What Did Not, and What We Learned."
- 26. Chongqing Normal University, China, May 28, 2004. Presentation: Education Trends in USA.
- 27. AMATYC 29<sup>th</sup> Annual Conference in Salt Lake City in November, 2003. Poster presentation: *Partnership to Increase STEM Enrollment and Student Success*.
- 28. Invited presentation at the special session on "Qualitative Properties and Applications of Functional Equations" for the 2003 Spring Western Section Meeting of the AMS, San Francisco State University, May 3-4, 2003. Presentation: *Inequalities of Solutions of a Scalar Functional Differential Equation*.
- 29. PKAL 2003 10×10 Assembly: Infusing a Global Dimension into Undergraduate STEM, University of California, Irving, November 11-14, 2003. Presentation: *International Collaborations at Community Colleges*.
- 30. PKAL 2003 10×10 Assembly: Motivating Students to Pursue Careers in STEM Fields, at Oberlin College, September 5-7, 2003. Presentation: *How We Motivate Students to Pursue Careers in STEM at Oakton.*
- 31. NSF Proposal Writing workshop, Oak Brook, IL, June 11-13, 2003. Poster presentation: *Partnership to Increase STEM Enrollment and Student Success*.
- 32. Invited presentation at the ICM-2002 Satellite Conference on Mathematics Education, Tibet University, Lhasa, Tibet, China, August 12-17, 2002. Presentation: Myths in the Mathematics Education in the USA.
- 33. Midwest Dynamic System Seminar, University of North Carolina, April 5-7, 2002. Presentation: *Inequalities of Solutions of a Partial Functional Differential Equations*.
- 34. PKAL Change Agent Round Table, ExxonMobil Corporate Headquarters, Irving, TX, March 2–4, 2001. Presentation: *Online Teaching*.
- 35. Mathfest of the Mathematical Association of America, August 3-5, 2000. Presentation: Math Is Fun.
- 36. 21st Century China and International Competitivity, Beijing, China, August 16-19, 1998. Presentation: *Community Colleges and Community Education*.
- 37. 933rd Conference of American Mathematical Society at Temple Univ., Philadelphia, PA, April 4--6, 1998. Presentation: *Inequalities and Stability for a Linear Scalar Functional Differential Equations*.
- 38. 10th Annual International Conference on Technology in Collegiate Mathematics, Chicago, IL, Nov.7-9, 1997. Presentation: *Build Your Own Functions with a Computer Algebra System*.

- *39.* MahtFest of the Mathematical Association of America, Atlanta, Aug. 1-4, 1997. Presentation: *Teaching with Multimedia Technology;*
- 40. Invited presentation at the Volterra Centennial Symposium, Arlington, Texas, May 23-25, 1996. Presentation: Wazewski's Inequality in a Linear Volterra Integro-differential equations.
- 41. 11th Annual Conference of American Council on International Intercultural Edu., Atlanta, GA, April 1996. Presentation: *On New Teachers' Preparation.*
- 42. Eighth Annual International Conference on Technology in Collegiate Mathematics, Houston, TX, Nov.1995. Presentation: *Build Your Own Functions with a Computer Algebra System*.
- *43.* Invited presentation at the special session on Periodic and Almost Periodic Solutions of Differential and Functional Equations for the 900th meeting of AMS, Chicago, March 24-25, 1995. Presentation: *Periodic Solutions and Liapunov Functionals.*
- 44. Invited presentation at the special session on Nonlinear Dynamics at the Joint Annual Meetings of AMS and MAA, San Francisco, January 4-7, 1995. Presentation: *Uniform Asymptotic Stability with Weaker Decrescentness*.
- 45. 14th Annual Southeastern Atlantic Region Conference on Differential Equations, Knoxville, TN, Oct 21-22, 94. Presentation: *Uniform Boundedness with the Condition*,  $V'(t,X_t) \le -\eta(t)W_1(m(X_t)) W_2(D(t,X_t)) + M$ .
- 46. Sixth Annual International Conference on Technology in Collegiate Mathematics, Parsippany, NJ, Nov.1993. Presentation: *How Many Ways a CAS Can Be Used in Teaching Mathematics*.
- 47. Invited presentation at the Symposium on Comparison Methods and Stability Theory, Waterloo, Canada, June 1993. Presentation: *Some General Theorems on Uniform Boundedness for Functional Differential Equations.*
- 48. Invited presentation at the Special Session of AMS, Integro-differential equations: stability and control, San Antonio, Texas, January, 1993. Presentation: (a) Uniform Asymptotic Stability of Functional Differential Equations, (b) Critical Thinking and Teaching with Derive.
- 49. First World Congress of Nonlinear Analysts, Tampa, Florida, August 1992. Presentation: *Upper Bounds for Liapunov Functionals, Integral Lipschitz Condition and Asymptotic Stability.*
- 50. Twentieth Midwest Conference on Differential Equations, Iowa City, Iowa, December 1991. Presentation: Asymptotic Stability and Derivatives of Solutions of Functional Differential Equations.
- 51. Nineteenth Midwest Conference on Differential Equations, Rolla, Missouri, October, 1990. Presentation: *Equivalent Conditions on Stability of Functional Differential Equations*.
- 52. International Conference on Differential Equations, Fuzhou, P.R. of China, June, 1985. Presentation: (a) The Norm Estimates for the Solutions of a Type of Nonautonomous Nonlinear Systems; (b) A Note on Stability of Trivial Solution of a Type of Nonautonomous Nonlinear Systems.