

Curriculum Vitae

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Education

Ph.D. in Mathematics, Washington University in St.Louis, May, 2004
Ph.D. in Applied Mathematics, Institute of Mathematics, Chinese Academy of Sciences, Beijing, China, July, 1999

Research Interests

Complex algebraic geometry and its interplay with several complex variables, applied harmonic analysis, applied linear algebra and wavelets.

Employment

Associate Professor in Mathematics, Governors State University, August, 2018-
Assistant Professor in Mathematics, Governors State University, August, 2014-August, 2018
Assistant Professor, Department of Mathematics and Statistics, State University of New York at Albany, September, 2007-August, 2014.
Post doctoral fellow, Mathematics Department, University of Missouri, August, 2004-May, 2007 (Mentor: Professor Zhenbo Qin).
Lecturer, Mathematics Department, Wuyi University, April, 1993-July, 1996.
Lecturer, Applied Mathematics Department, Chengdu Institute of Technology, August, 1988- March, 1993.

Visiting Positions

Department of Mathematics, Harvard University, Fall Semester, September 10, 2012-December 22, 2012.

Institut Henri Poincaré, Paris, France, 18th - 26th June 2011.

Department of Mathematics and Institute for Mathematical Sciences, National University of Singapore, Jan.3, 2011-Jan.8, 2011.

Department of Mathematics, Sichuan University, China, June, 2005.

Professional Activities

1. Reviewer for two major international reviewing services in mathematics
 - (1) Mathematical Reviews (published by the American Mathematical Society)
 - (2) Zentralblatt MATH (edited by the European Mathematical Society, FIZ Karlsruhe, and the Heidelberg Academy of Sciences).
2. Journal referee: Annals of Functional Analysis, Bulletin of the Brazilian Mathematical Society, New Series.

Conferences Organized

1. Special Session on Algebraic Geometry, AMS Sectional Meeting, March 12-13, 2011. Georgia Southern University, Statesboro, GA (2011 Spring Southeastern Section Meeting).
2. Showme Algebraic Geometry Conference, Columbia, Missouri, May 5- May 7, 2011.

Publications

1. Complex manifolds with vanishing Hodge cohomology, Houston Journal of Mathematics, Vol 43, No 3, 2017, 807-827.
2. Stein open subsets with analytic complements in compact complex spaces, Annales Polonici Mathematici, 113 (2015), 43-60.
3. A new criterion of affineness, International Scholarly Research Notices, Algebra, Volume 2013.
4. Singularity of a holomorphic map, Houston Journal of Mathematics, v.39, No.1, Page 111-125, 2013.
5. Algebraic Stein varieties, Mathematical Research Letters, Vol.15, 4, July 2008, pp. 801-814.
6. On the existence of nontrivial threefolds with vanishing Hodge cohomology, Michigan Math. J. , 54(2006), No.2, 447-467.
7. A First glimpse at the Minimal Model Program (with Charles Cadman, Izzet Coskun, Kelly Jabbusch, Michael Joyce, Sandor J. Kovacs, Max Lieblich, Fumi

- toshi Sato, Matt Szczesny), Contemporary Mathematics 388, 17-43, 2005.
8. Threefolds with vanishing Hodge cohomology, Trans. Amer. Math. Soc. 357, Number 5, 1977-1994, 2005.
 9. Stability of Weyl-Heisenberg (Gabor) and Wavelet Frames, preprint.
 10. Existence of frames due to nonhomogeneous Calderon reproducing formula. Math. Sci. Res. Hot-Line 5(2001), no. 4, 1-28.
 11. (joint work with Yongsheng Han) Cotlar-Stein lemma and the Tb theorem. Proc. Amer. Math. Soc. 129(2001), no. 6, 1697-1703.
 12. Stability of wavelet frames and Riesz bases with respect to dilations and translations. Proc. Amer. Math. Soc. 129(2001), no. 4, 1113-1121.
 13. On the stability of wavelet and Gabor frames (Riesz bases). J. Fourier Anal. Appl. 5(1999), no. 1, 105-125.
 14. A mixed stiff finite element method for the Navier-Stokes equation from the stream function formula, Journal of Computer Applications, 4(1992), 136-146 (Chinese).

Awards, Grants and Honors

1. Prize of Excellent Papers in Sciences, Jianmen, Guangdong, 1993.
2. Hua Wei Prize, Chinese Academy of Sciences, 1999.
3. Fellowship, Institute of Mathematics, Chinese Academy of Sciences, 1996-1999.
4. Fellowship, Washington University in St.Louis, 1999-2000.
5. Financial support for the conference on Hilbert schemes, vector bundles and their interplay with representation theory, April 5-7, 2002, The MU Mathematics Department.
6. Summer Research Support, Arts and Sciences, Washington University in St.Louis, June- August, 2002.
7. Summer Research Support, Arts and Sciences, Washington University in St.Louis, June- August, 2003.
8. Financial support for the international conference on "The Unity of Mathematics", August 31-September 4, 2003, Massachusetts Institute of Technology, AMS.
9. Teaching assistantship, Department of Mathematics, Washington University in St.louis, 2000-2003.
10. Dean's dissertation fellowship, Arts and Sciences, Washington University in St.Louis, 2003- 2004.
11. Financial support for the Joint Summer Research Conferences: Algebraic Geometry, July 4-July 8, 2004, American Mathematical Society.
12. Financial support for 2005 Summer Research Institute: Algebraic Geometry, August 1 - August 5, 2005, Seattle, Washington, American Mathematical Society.

13. Financial support for “Recent Developments in Higher Dimensional Algebraic Geometry”, Johns Hopkins University, Japan-U.S. Mathematics Institute, March 10-16, 2006.
14. Summer research support for junior faculty, SUNY-Albany, 2007.
15. Financial support of Geometry and Topology Conference in Texas, Feb.20-22, 2009.
16. Financial support from MSRI for workshop: Critical Issues in Mathematics Education, June 7-9, 2010.
17. Award from UUP, Individual Development Awards Program, January, 2011.
18. Financial support from The Institute for Mathematical Sciences (IMS) at the National University of Singapore (NUS) for Workshop on Algebraic Geometry, Complex Dynamics and their Interaction, Jan.3-Jan.8, 2011.
19. Financial support from Department of Mathematics, University of Missouri, Show-Me Algebraic Geometry Meeting, May 7-8, 2011.
20. Financial support from Institut Henri Poincaré for Conference on Dynamics and Geometry, Paris, France, 18th - 26th June 2011.
21. Travel Award, Arts and Sciences, University at Albany, April, 2012.
22. Award from UUP, Individual Development Awards Program, March, 2012.
23. Financial support for the International Conference on Vector Bundles from Kerala School of Mathematics and TIFR, sponsored by National Board for Higher Mathematics, India, April 2-6, 2012.
24. Financial support for the workshop on Topology of Algebraic Varieties, Center De Recherches Mathématiques, Montréal, Canada, September 24-28, 2012.
25. Research Award from Faculty Research Awards Program, FRAP B, SUNY at Albany, 2011-2014:
http://www.albany.edu/research/assets/2010_11FRAPRecipients.pdf (On Page 2).
26. Financial support for conference “I-70 Algebraic Geometry Symposium”, University of Missouri-Columbia, November 5-6, 2016.

Invited Talks

1. Wavelet seminar, Institute of Mathematics, Chinese Academy of Sciences, 1996.
2. Harmonic analysis seminar, Beijing University, 1997.
3. Conference of harmonic analysis and wavelet analysis, Nankai University, May, 1997.
4. First International Congress of Chinese Mathematicians, December, Beijing, 1998.
5. Geometry and topology seminar, University of Missouri, Columbia, January, 2003.
6. Complex analysis seminar, Rutgers University, March, 2003.

7. Sectional meeting of AMS, special section on algebraic geometry, Boulder, Colorado, 989-14-274, Three-folds with Nonconstant Regular Functions and Vanishing Hodge Cohomology, October 4, 2003.
8. Sichuan University, Chengdu, China, July 6, 2005.
9. Summer Research Institute : Algebraic Geometry, August 5, 2005 Seattle, Washington.
10. Sectional meeting of AMS, special session on algebraic geometry, Lincoln, Nebraska, On threefolds without nonconstant regular functions, 1101-14-149, October 22, 2005.
11. KUMUNU 7, November 4, 2006, Mathematics Department, University of Kansas.
12. Algebraic geometry seminar, Department of Mathematics, Johns Hopkins University, January 30, 2007.
13. Colloquium, University at Albany, SUNY, February 12, 2007.
14. Algebraic geometry seminar, Department of Mathematics, Washington University in St.Louis, March, 2007.
15. Algebra seminar, Kansas State University, March 9, 2009.
16. Geometry and Topology Seminar, University of Missouri, Columbia, May 18, 2010.
17. AMS-SMM Eighth International Meeting, Berkeley, California, Session of Complex Analysis and Operator Theory, Sections of holomorphic line bundle, June 4, 2010.
18. AMS-SMM Eighth International Meeting, Berkeley, California, Session of Singularity Theory and Algebraic Geometry, Hypersurface sections of a projective variety, June 4, 2010.
19. Sectional meeting of AMS, special session on singularity in algebraic geometry, Notre Dame, Singularity of a holomorphic map, November 7, 2010.
20. Department of Mathematics, National University of Singapore, Algebraic manifolds with vanishing Hodge cohomology, January 6, 2011.
21. Department of Mathematics, University of Michigan, Ann Arbor, Several complex variables seminar, Hypersurface sections in complex spaces, November 28, 2011.
22. International Conference on Vector Bundles, Levi Problem on Compact Complex Spaces, Kerala School of Mathematics, Culicut, India, April 2, 2012.
23. Workshop on “The Topology of Algebraic Varieties”, Center De Recherches Mathématiques, Montréal, Canada, September 24, 2012.

Department/Division/College Service at GSU

1. Curriculum Committee (Division of Computing, Mathematics and Technology), Fall 2014-Spring 2017
2. Curriculum Committee (Division of Science, Mathematics and Technology), Fall 2018-

3. Abstract algebra and number theory syllabi for proposed new master program in mathematics education (2015-2016)
4. Division Bylaw Review Committee (2014-2015)
5. Division Science, Mathematics and Technology Policy Committee (Spring 2018-)

University Service at GSU

1. University library: Providing Mathematics book order list
2. University Academic Program Review Committee (Fall 2015-)
3. University General Education Council (Spring 2016-)
4. General Education Council Director Search Committee (Spring 2018)
5. University Curriculum Committee (Fall 2018-)
6. Academic Master Plan Advisory Committee (Fall 2018-)

Community Service in Illinois

1. Higher Education Faculty Judgment Study for The Partnership for Assessment of Readiness for College and Careers (PARCC, 2014-2015)
2. Mathematics Panel of the Illinois Articulation Initiative: ittransfer (2015-)

Department Service at SUNY

Undergraduate Committee, September 1, 2009- May, 2012
 MS student oral exam committee: Ming Fang (2012)
 Ph.D. student oral exam committee: Ian Parnett (2011), Daniel Smitas (2011)
 Ph.D. Dissertation Committee: Daniel Smitas (2013)

College Service at SUNY

Member of CAS Faculty Council, September, 2009-May, 2014

Other Professional Service

Liaison of MAA (Mathematical Association of America), September, 2009-May, 2014

Thesis Committee Chair of Graduate Students at GSU

Chinetha Casper (Spring 2018-)
 Christina A. Frase (Spring 2018-)
 Deborah Redford (Fall 2015)
 Abbey Scupin (Fall 2018-)
 Steven R. Turner (Spring 2018-)

Thesis Committee Member (Reader) of Graduate Students at GSU

Maysoon Alissa
Asmaa Abdulhameed
Matthew Brady
Laura Finley
Nanci Kopecky

Supervisor of Graduate Student Independent Study/Project at GSU

Chinetha Casper
Christina A. Frase
Steven R. Turner
Dawn E Wolf

Supervisor of Undergraduate Student Research Project at GSU

Jiaqi Lu

Undergraduate Students Advised at SUNY

About 10 undergraduate students each semester

Graduate Students Advised at SUNY

Hua Fan (now is working for Federal Government)

Courses Taught at Governors State University

Fall 2014, College Algebra (MATH 1423-04), Linear Algebra (Math 2449), Modern Algebra (MATH 4451).

Spring 2015, Applied Calculus (MATH 2281-05, MATH 2281-07), Linear Algebra (Math 2449), Independent Study (MATH 4700-01), Graduate Thesis Project (MATH 8900-03), Research Presentation (MATH 8900-02).

Fall 2015, Calculus III (Math 2294-01), Linear Algebra (Math 2449), Number Theory (Math 4133-01), Graduate Thesis Project (Math 8999)

Spring 2016, Advanced Linear Algebra (MATH 6449), Modern Algebra (MATH 4451), Applied Calculus (MATH 2281-06)

Fall 2016, Number Theory (MATH 6133, MATH 4133), Calculus 3 (MATH 2294), Applied Calculus (MATH 2281-05)

Spring 2017, Modern Algebra (MATH7451, MATH4451), Modern Algebra (MATH6451),

Applied Calculus (MATH 2281-06)
 Summer 2017, MATH-8700-02
 Fall 2017, Applied Calculus (MATH 2281-05), Calculus III (Math 2294-01), Number Theory (MATH 7133 Graduate, MATH 4133 Undergraduate), MATH-8700-01 Independent Study
 Spring 2018, Graduate Thesis (MATH8900), Thesis Presentation (MATH8990), Modern Algebra I (MATH7451 Graduate, MATH4451 Undergraduate), Modern Algebra II (MATH6451, Graduate) Applied Calculus (MATH 2281-06), College Algebra (MATH1423-08)
 Fall 2018, Graduate Thesis (MATH8900), Thesis Presentation (MATH8990), Number Theory (MATH 7133 Graduate, MATH 4133 Undergraduate), Linear Algebra (Math 2449), Applied Calculus (MATH 2281-05), College Algebra (MATH 1423-04)

Courses Taught at SUNY-Albany

Fall, 2007, Algebraic Curves and Riemann Surfaces (AMAT 625).
 Spring, 2008, Elementary Abstract Algebra (AMAT 327, 327Z); Algebra and Calculus I (AMAT 101); Independent study and research (AMAT 897).
 Fall, 2008, Algebraic Geometry (AMAT 725); Survey of Calculus (AMAT 106).
 Spring, 2009, Elementary Abstract Algebra (AMAT 327, 327Z).
 Fall, 2009, Calculus of Several Variables (AMAT214); Classical Algebra (AMAT 326, AMAT 326Z).
 Spring, 2010, Calculus of Several Variables (AMAT 218, TMAT 218); Topics in Modern Mathematics, (Algebraic Geometry, AMAT487/587); Independent Study in Mathematics (AMAT497).
 Fall, 2010, Calculus of Several Variables (AMAT 214), Elementary Abstract Algebra (AMAT327, AMAT327Z).
 Spring, 2011, Classical Algebra (AMAT 326, 326Z), Algebraic Geometry (AMAT 725), Independent study and research (AMAT 897).
 Fall 2011, Calculus of Several Variables (AMAT214), Advanced Linear Algebra (AMAT424, AMAT524).
 Spring 2012, Calculus of Several Variables (AMAT 214), Algebra I (AMAT 520A).
 Spring 2013, Calculus of Several Variables (AMAT 214), Classical Algebra (AMAT 326, AMAT 326Z).
 Fall 2013, Calculus of Several Variables (AMAT 214), Elementary abstract algebra (AMAT327, AMAT 327Z)
 Spring 2014, Calculus of Several Variables (AMAT 214), Classical algebra (AMAT326, AMAT 326Z)

Courses Taught at University of Missouri (as an instructor)

1. Finite math (math 1300, general education)
2. Calculus II for social and natural science majors (math 2100)
3. Calculus I for social science majors (math 1320, general education)
4. Calculus II (math 1700)

Teaching Experience at Washington University in St.Louis (as a TA)

1. Math 132, Calculus II
2. Number theory

Courses Taught in China (as an instructor)

1. Advanced calculus for math majors
2. Calculus I and II for science and engineering majors
3. Complex analysis of one variable
4. Advanced linear algebra
5. Numerical analysis for science and engineering majors
6. Partial differential equations for science and engineering majors
7. Probability and statistics for science and engineering majors