

# CURRICULUM VITAE

Zhifu Xie

## CONTACT INFORMATION

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## RESEARCH INTERESTS

- Dynamical System and Celestial Mechanics ( $N$ -body Problem, Central Configurations);
- Nonlinear Partial Differential Equations (Elliptic Type);
- Mathematical Biology, Turing Instability and Spatiotemporal Pattern Formation.

## EDUCATION

- Ph.D. in Mathematics, Brigham Young University, Provo, Utah, U.S.A, 2006.  
Adviser: Dr. Tiancheng Ouyang
- M.S. in Mathematics, Chongqing University, China, 2001. Adviser: Dr. Shiqing Zhang
- B.S. in Mathematical Education, Chongqing Normal University, China, 1998.

## ACADEMIC POSITION

- August 2015 – present: Professor, Virginia State University.
- August 2011 – August 2015: Associate Professor, Virginia State University.
- August 2007 – August 2011: Assistant Professor, Virginia State University.
- August 2006 – August 2007: Visiting Assistant Professor, College of William & Mary.

## GRANTS AND FELLOWSHIPS

All fellowships, grants, contracts awarded by outside agencies (various travel supports not listed).

1. *Research Initiation Award: Central Configurations, New Variational Method and Periodic Solutions in Celestial Mechanics*, HRD-1409939, National Science Foundation, 07/01/2014-06/30/2016 (PI: Z. Xie, \$195,212).
2. Funded Project by NSF grant DMS-1345499 through the MAA Preparation for Industrial Careers in Mathematical Sciences Program (PIC Math), 06/2014-08/2016 (PI: Z. Xie, \$10,500).
3. Simons Foundation: Collaboration Grants for Mathematicians, 09/01/2013- 08/31/2018. Terminated at 08/31/2014 due to support from NSF-HRD-1409939 (PI: Z. Xie, \$35,000).
4. National Research Experience for Undergraduates Program (NREUP), National Science Foundation-DMS, Summer 2014 (PI: D. Haile, Co-PI: Z. Xie, \$25,000).
5. *Mini-Grants of CURM: Super Central Configurations of the  $n$ -body Problem with the General Homogenous potential*. CURM stands for Center for Undergraduate Research in Mathematics and it is funded by the NSF grant (DMS 0636648) and Brigham Young University. 03/2010-08/2011 (PI: Z. Xie, \$13,050).
6. *Mini-Grants of CURM: Celestial Mechanics and the Newtonian  $N$ -body Problem*. 08/2009-08/2010 (PI: Z. Xie, \$4,500).

All summer grants and Faculty Research Initial Grants received from Virginia State University

1. Summer Research Grant on Game Theory, Summer 2014 (with Y. Lu, J. Zhang, \$21,000).
2. Summer Research Grant on Mathematical Biology, Summer 2013 (with D. Haile, J. Zhang, \$23,000).
3. Summer Research Grant on Game Theory, Summer 2012 (with Y. Lu, J. Zhang, \$21,000).
4. Summer Research Grant: Multidisciplinary Research Initiatives, Summer 2011 (with B. Toni etc. \$49,000).
5. *Stability of Periodic Solutions and Central Configurations in the  $n$ -body Problem*. Research Initiation Grants (RIG code 2137), 2008-2009 (PI: Z. Xie, \$9,000).

1. Tiancheng Ouyang, Zhifu Xie  
*Star pentagon and many stable choreographic solutions of the Newtonian 4-body problem.*  
**Physica D: Nonlinear Phenomena**, 307 (2015), 61–76.
2. Dawit Haile, Zhifu Xie  
*Long-time behavior and Turing instability induced by cross-diffusion in a three species food chain model with a Holling type-II functional response.*  
**Mathematical Biosciences**, 267 (2015), 134–148.
3. Duokui Yan, Tiancheng Ouyang, Zhifu Xie  
*Classification of Periodic Orbits in the Planar Equal-mass Four-body Problem.*  
Accepted by **Discrete and Continuous Dynamical Systems - Series S**.
4. Zhifu Xie  
*An Analytical Proof on Certain Determinants Connected with the Collinear Central Configurations in the  $n$ -body Problem.*  
**Celestial Mechanics and Dynamical Astronomy**, 118 (2014), no. 1, 89-97.
5. Yongjin Lu, Zhifu Xie, Jing Zhang  
*An Analysis of the Stability and the Efficiency of a Cooperative Network among Companies, Universities and Local Government.* **Journal of Game Theory**, 2013, 2(3): 23-32.
6. Tiancheng Ouyang, Zhifu Xie  
*Number of Central Configurations and Singular Surfaces in Mass Space in the Collinear Four-body Problem.*  
**Transactions of the American Mathematical Society**, 364 (2012), 2909-2932.
7. Zhifu Xie, Chunshan Zhao  
*Blow-up Rate and Uniqueness of Singular Radial Solutions for a Class of Quasi-Linear Elliptic Equations.* **Journal of Differential Equations**, 252 (2012) 1776-1788.
8. Zhifu Xie  
*Isosceles Trapezoid Central Configurations of the Newtonian Four-body Problem.* **Proceedings of the Royal Society of Edinburgh**, 142A (2012), 665-672.
9. Zhifu Xie  
*Cross-diffusion induced Turing instability for a three species food chain model.* **Journal of Mathematical Analysis and Applications**, 388 (2012), 539-547.
10. Zhifu Xie, Kenyaita Hodge\*, Michael Westbrook\*, Krystolyn Henderson\*  
*Super Central Configurations of the Three-body Problem under the Inverse Integer Power Law.*  
**Journal of Mathematical Physics**, 52 (2011) 092901.
11. Zhifu Xie  
*The Golden Ratio and Super Central Configurations of the  $n$ -body Problem.*  
**Journal of Differential Equations**, 251 (2011) 58-72.
12. Zhifu Xie  
*Central Configurations of the Collinear Three-body Problem and Singular Surfaces in the Mass Space.* **Physics Letters A**, 375 (2011) 3392-3398.
13. Zhifu Xie  
*Turing instability in a coupled predator-prey model with different Holling type functional responses.* **Discrete and Continuous Dynamical System, Series S**, 4 (2011) pp 1621-1628.
14. Junping Shi, Zhifu Xie, Kristina Little  
*Cross-diffusion induced instability and stability in reaction-diffusion systems.*  
**Journal of Applied Analysis and Computation**, Vol. 1, No. 1 (2011) pp 95-119.
15. Zhifu Xie  
*Inverse Problem of Central Configurations and Singular Curve in the Collinear 4-Body Problem.* **Celestial Mechanics and Dynamical Astronomy** 107, (2010) pp 353-376.
16. Zhifu Xie  
*Super Central Configurations of the  $n$ -body Problem.*  
**Journal of Mathematical Physics** 51, (2010) 042902.

17. Junping Shi, Zhifu Xie  
*Classification of four-body central configurations with three equal masses.*  
**Journal of Mathematical Analysis and Applications** 363 (2010) pp512–524.
18. Mervin Woodlin\*, Zhifu Xie  
*Collinear Central Configurations in the  $n$ -body Problem with General Homogeneous Potential.*  
**Journal of Mathematical Physics** 50, (2009), 102901.
19. Zhifu Xie  
*General Uniqueness Results and Examples for Blow-up Solutions of Elliptic Equations.*  
**Discrete and Continuous Dynamical System, Supplement**, (2009) pp828-837.
20. Zhifu Xie  
*Uniqueness and blow-up rate of large solutions for elliptic equation  $-\Delta u = \lambda u - b(x)h(u)$ .*  
**Journal of Differential Equations** 247 (2009) pp344-363.
21. Tiancheng Ouyang, Zhifu Xie  
*Regularization of Simultaneous Binary Collisions and Periodic Solution with Singularity in the Collinear Four-Body Problem.* **Discrete and Continuous Dynamical System, Series A**, Vol 24 (2009) pp909-932.
22. Huiqing Yang, Zhifu Xie  
*A Red-Black Gauss Seidel Parallel Algorithm for Solving Neumann Boundary Elliptic PDEs.*  
**the Proceedings of the 2009 International Conference on Parallel and Distributed Processing Techniques and Applications PDPTA 2009**, Volume II, Editor: Hamid R. Arabnia, pp539–545.
23. Tiancheng Ouyang, Zhifu Xie  
*The Exact Boundary Blow-up Rate of Large Solutions for Semilinear Elliptic Problems.*  
**Nonlinear Analysis: Theory, Methods and Applications**, Vol 68(2008) pp 2791-2800.
24. Tiancheng Ouyang, Zhifu Xie  
*The Uniqueness of Blow-up Solution for Radially Symmetric Semilinear Elliptic Equation*  
**Nonlinear Analysis: Theory, Methods and Applications**, Vol. 64(2006) pp 2129-2142.
25. Tiancheng Ouyang, Zhifu Xie  
*Collinear Central Configuration in Four-body Problem.*  
**Celestial Mechanics and Dynamical Astronomy**, Vol. 93(2005), pp 147-166.
26. Tiancheng Ouyang, Zhifu Xie, Shiqing Zhang  
*Pyramidal Central Configurations and Perverse Solutions.*  
**Electronic Journal of Differential Equations**, Vol. 2004(2004), No. 106, pp 1-9.
27. Shiqing Zhang, Zhifu Xie  
*Nested Regular Polygon Solutions of  $2N$ -body Problem.*  
**Physics Letters A**, Vol. 281(2001), pp 243-247.
28. Zhifu Xie, Qian Chen  
*Pyramidal Central Configurations for Spatial 5-body problems.*  
**Journal of Chongqing University(Natural Science Edition)**, Vol. 24(2001), No. 1, pp 122-126.
29. Zhifu Xie, Shiqing Zhang  
*A simpler proof of regular polygon solutions of the  $N$ -body problem.*  
**Physics Letters A**, Vol. 277(2000), pp 156-158.
30. Weidong Meng, Ri Chen, Zhifu Xie  
*A study of the basic structure of the Elliott wave based on positive feedback investment.*  
**Forecast in China** (in Chinese), Vol. 7(2000) pp 79-81.
31. Ri Chen, Weidong Meng, Zhifu Xie  
*A study of the lager feature of the Elliott wave based on positive feedback investment.*  
**Forecast in China**(in Chinese), Vol. 7(2000) pp 82-87.
32. Weidong Meng, Ri Chen, Zhifu Xie  
*A study of the of the Fibonacci sequence phenomenal and the growth feature of the Elliot wave on positive feedback investment model.*  
**Forecast in China**(in Chinese), Vol. 7(2000) pp 88-89.

HONORS  
AND  
AWARDS

1. Nominated by Virginia State University for the 2015-2016 SCHEV Outstanding Faculty Award.
2. 2012 SCHEV Outstanding Faculty Award Finalist.  
SCHEV stands for the State Council of Higher Education for Virginia.
3. Nominated by Virginia State University for the 2010-2011 SCHEV Outstanding Faculty Award.
4. Outstanding Research Award, Department of Mathematics, Brigham Young University, Fall 2003, April 2005.
5. Outstanding Teaching Assistant Award, Department of Mathematics, Brigham Young University, April 2004.
6. Session winner of Spring Student Research Conference at Brigham Young University, 2005, 2006.
7. Best Performance in Graduate Council Service, Department of Mathematics, Brigham Young University, April 2003

CONFERENCE  
ORGANIZER

1. Co-Organizer, 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Special session on Celestial Mechanics, Orlando, Florida, USA, July 1 - July 5, 2016.
2. Co-Organizer, 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Special session on Central configurations, periodic solutions, variational method and beyond in celestial mechanics, Madrid, Spain, July 07 - July 11, 2014.
3. Co-Organizer, 2013 Joint Mathematical Meeting of AMS and MAA, Special session on Celestial Mechanics, San Diego, California, January 9-13, 2013.
4. Co-Organizer, 2010 Fall AMS Southeastern Section Meeting, special session on Differential Equations and Applications to Physics and Biology, Richmond, Virginia, USA, Nov 6-7, 2010.
5. Member of Organizing Committee, Spring 2010 MD-DCVA Section Meeting of the MAA, Virginia State University, USA, Apr. 16-17, 2010.

REFEREING  
FOR  
JOURNALS

1. *Bulletin of the Belgian Mathematical Society*
2. *Science in China, Series A: Mathematics*
3. *Journal of Differential Equations*
4. *Chaos: An interdisciplinary Journal of Nonlinear Science*
5. *Discrete and Continuous Dynamical Systems, Series S*
6. *Computers and Mathematics with Applications*
7. *Nonlinear Analysis: Real World Applications*
8. *Rocky Mountain Journal of Mathematics*
9. *AIMS Proceedings on Discrete and Continuous Dynamical System.*
10. *Mathematical Methods in the Applied Sciences*
11. *The Open Astronomy Journal.*
12. *Journal of Computational and Applied Mathematics*
13. *Journal of Mathematical Analysis and Applications.*
14. *Glasgow Mathematical Journal.*
15. *International Journal of Biomathematics.*
16. *Journal of the Egyptian Mathematical Society.*
17. *Nonlinear Analysis: Theory, Method & Applications.*
18. *Libertas Mathematica*
19. *Abstract and Applied Analysis*
20. *American Mathematical Monthly*
21. *Journal of Mathematical Biology*
22. *Boundary Value Problems*
23. *Physical Letters A*
24. *Mathematical Biosciences*
25. *Astrophysics and Space Science*

OTHER  
REFEREING

26. *Electronic Journal of Differential Equations*
27. *African Journal of Mathematics and Mathematical Sciences*
28. *Electronic Journal of Qualitative Theory of Differential Equations*
29. *Journal of Inequalities and Applications*
30. *Neural Computing and Applications*
31. *Mathematical Problems in Engineering*
32. *International Journal of Bifurcation and Chaos*
33. *Journal of Optimization Theory and Applications*
34. *Journal of Inequalities and Applications*
35. *Advances in Astronomy*
36. Reviewer for *Mathematical Reviews*
37. External Program Reviewer for the Centre de Recerca Matemàtica (CRM), Barcelona, Spain.
38. Book Editor for Springer: Bridging Mathematics, Statistics, Engineering and Technology, Contributions from the Fall 2011 Seminar on Mathematical Sciences and Applications.

UNDERGRADUATE RESEARCH SUPERVISED	<p>Some of the undergraduates are supervised in group with other faculty</p> <ol style="list-style-type: none"> <li>1. Mervin Woodlin, Spring and Summer of 2009, Funding Source: VSU RIG grant (Code 2137)</li> <li>2. Michael Westbrook, Fall 2009 and Spring 2010, Funding Source: a Mini-Grant by the National Science Foundation (NSF) (DMS 0636648) and Brigham Young University via the Center for Undergraduate Research in Mathematics (CURM)</li> <li>3. Krystolyn Henderson and Kenyaita Taylor-Hodge. Fall 2010 and Spring 2011, Funding Source: a Mini-Grant by the National Science Foundation (NSF) (DMS 0636648) and Brigham Young University via the Center for Undergraduate Research in Mathematics (CURM)</li> <li>4. Erica Still and Candra Gross, Summer 2013, Funding Source: a summer research grant from VSU</li> <li>5. Brandi Massey, Arrieyana Cartier, Jasmine Blocker, Monique Duru, Summer 2014, Funding Source: a summer research grant from VSU</li> <li>6. James Finnie, Joilah James, Robert Benson, Imani Wood, Janelle Williams, Janay Joseph, Summer 2014, Funding Source: MAA's NREUP program</li> <li>7. Ashleigh Bell, Shane Dabney, Kendral Michael, Curits Jones, Janay Joseph, Spring 2015, Funding Source: PIC math program at VSU and NSF-HRD1409939</li> <li>8. Brandon Harrington, Electa McDowell, Danelle Singer, Spring 2015, Funding Source: PIC math program at VSU and NSF-HRD1409939</li> <li>9. Ebony Albritton, Jasmine Jackson, Brandi Massey and Chad Sadler, summer 2015, Funding Source: HBCU-UP summer program at VSU</li> </ol>
NATIONAL SOCIETY MEMBERSHIP	<ul style="list-style-type: none"> <li>• Member of American Mathematical Society (AMS), 2002- current.</li> <li>• Member of National Defense Industrial Association (NDIA), 2011-current.</li> <li>• Member of National Modeling and Simulation Coalition (NMSC), 2011-2012.</li> <li>• Committee member of NMSC's standing committee of Education and Professional Development (EPD), 2011-2012.</li> </ul>
COMMITTEE SERVICE	<p>University Committee Service</p> <ul style="list-style-type: none"> <li>• Member of the Library Fair Committee, 2007-current.</li> <li>• Member of Curriculum and Academic Issues Committee, 2010-current.</li> <li>• Faculty Senator Alternative, 2012-2014.</li> <li>• Member of General Education Committee, 2010-2013.</li> </ul> <p>Department of Mathematics and Computer Science Committees</p> <ul style="list-style-type: none"> <li>• Member of Graduate Committee of the Department, 2010-current.</li> <li>• Mentor, Undergraduate Research in Mathematics, 2008-current.</li> <li>• Academic Advisor for undergraduate students in mathematical major or in computer science major, Virginia State University, 2007-current.</li> <li>• Member of Hiring Committee in Mathematics and Statistics, 2009-2014.</li> <li>• Member of Recruitment and Retention Committee, 2008-2012.</li> <li>• Member of Department Hospitality Committee, 2009-2013.</li> <li>• Member of Assessment Committee of the Department, 2008-current.</li> </ul>
NEW COURSES DEVELOPED	<ul style="list-style-type: none"> <li>• Introduction to Celestial Mechanics and Newtonian N-body Problem, Fall 2009, Fall 2015</li> <li>• Mathematical Biology, Summer 2014.</li> <li>• Preparation for Industrial Careers in Mathematical Sciences, Spring 2015.</li> <li>• Undergraduate Research on Ebola Outbreak in 2014-2015, Summer 2015.</li> </ul>

INVITED  
CONFERENCE  
TALK

1. 2015 CMO-BIRS workshop on the Hamiltonian Systems and Celestial Mechanics at Oaxaca, Mexico, Sept. 6- 11, 2015. (45 minutes invited talk)  
The participation was also supported by an award from the American Astronomical Society International Travel Grant Program funded by National Science Foundation (NSF).
2. HBCU-UP/CREST PI/PD Meeting in Washington, DC on February 18-19, 2015.
3. AMS Special Session on Current Trends in Classical Dynamical Systems, 2015 Joint Mathematics Meetings, San Antonio, TX. Jan. 10-13, 2015. (30 minutes invited talk)
4. Special Sessions on Nonlinear elliptic and parabolic problems, 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, July 07 - July 11, 2014 Madrid, Spain. (30 minutes invited talk)
5. Special Sessions on Central configurations, periodic solutions, variational method and beyond in celestial mechanics, 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, July 07 - July 11, 2014 Madrid, Spain. (30 minutes invited talk)
6. The Eighth International Conference on Recent Advances in Applied Dynamical Systems will be held in Guilin, China, from June 1st to 4th, 2014. (40 minutes invited talk)
7. Workshop on Symplectic Dynamics and Hamiltonian Systems, Nankai University, China, May 19-23, 2014. (50 minutes invited talk)
8. The Third Colloquium on Dynamical Systems Control and Applications–DySCA III, Mexico City, Mexico, June 21-24, 2013. (40 minutes invited talk)
9. AMS Special Session on Celestial Mechanics, Joint Mathematics Meetings, San Diego, CA, January 9-12, 2013. (30 minutes invited talk)
10. Special session 18: Qualitative Theory of Evolutionary Equation and its Application, 9th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, Hyatt Grand Cypress Resort, Florida , July 1-5, 2012. (30 minutes invited talk)
11. Special Session 55: Nonlinear Elliptic and Parabolic Problems, 9th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, Hyatt Grand Cypress Resort, Florida , July 1-5, 2012. (30 minutes invited talk)
12. Special session on Self-organization Phenomena in Reaction Diffusion Equations, 2012 AMS Spring Eastern Sectional Meeting, George Washington University, Washington, DC March 17-18, 2012. (30 minutes invited talk)
13. 2011 AMS Sectional Meeting at Special session on Geometric Celestial Mechanics, Salt Lake City, Utah, Oct. 22-23, 2011. (30 minutes invited talk)
14. Special session on celestial mechanics, 2011 Spring Eastern Sectional Meeting Worcester, MA, April 9-10, 2011. (30 minutes invited talk)
15. AMS Special Session on Analysis of Reaction-Diffusion Models, II, Joint Mathematics Meetings, New Orleans, LA, January 6-9, 2011. (30 minutes invited talk)
16. Special Session on Differential Equations and Applications to Physics and Biology, 2010 Fall Southeastern Section Meeting Richmond, VA, November 6-7, 2010. (30 minutes invited talk)
17. The Fourth International Conference on Recent Advances in Applied Dynamical Systems, Zhejiang Normal University, Jinhua, China, from June 16th to June 20th of 2010. (30 minutes invited talk)
18. Special Session 2: Pattern Formation in Biology and Ecology: from Interfaces to Meta-solutions, 7th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, University of Texas at Arlington , May 18 - 21, 2008. (30 minutes invited talk)

18. Special Session 36: Nonlinear Elliptic and Parabolic PDEs with Applications, 7th AIMS International Conference on Dynamical Systems, Differential Equations and Applications, University of Texas at Arlington, May 18 - 21, 2008. (30 minutes invited talk)
19. 2008 AMS Spring Southeastern Meeting, Special Session on Mathematical Modeling in Biology, Baton Rouge, LA, March 28-30, 2008. (30 minutes invited talk)
20. Midwest Dynamical System Conference, University of Michigan, Oct. 21, 2007. (50 minutes invited talk)

INVITED  
COLLOQUIUM  
TALK

1. Capital Normal University, China, May 28, 2014
2. Beijing University, China, May 27, 2014.
3. Chongqing Normal University, China, May 9, 2014.
4. Chongqing University, China, May 8, 2014.
5. College of William and Mary, Williamsburg, VA, Oct. 25, 2013.
6. Nankai University, Tianjin, China, Dec. 20, 2011.
7. Sichuan University, Chengdu, China, Dec. 13, 2011.
8. Brigham Young University, Provo, Utah, March 17, 2011.
9. George Washington University, Washington D.C, February 17, 2011.
10. Sichuan University, Chengdu, China, June 3-9, 2010.
11. Chongqing Normal University, China, June 1, 2010.
12. Capital Normal University, Beijing, China, May 25, 2010.
13. Brigham Young University, Provo, Utah, Jan. 6 - Jan. 12, 2008
14. College of William and Mary, Williamsburg, VA, Oct 20. 2006.
15. Queen's University, Kingston, Canada, June 2005

CONTRIBUTED  
TALK

1. International Congress of Mathematicians (ICM Seoul 2014), Seoul, South Korea, August 13-21, 2014.
2. Colloquium Talk, Virginia State University, April 12, 2012.
3. Weekly Seminar on Mathematical Science and Application, VSU, September 9, 2011.
4. 2011 IMA New Directions Short Course: Invariant Objects in Dynamical Systems and their Applications, June 19-July 1, 2011.
5. The 30th Southeastern Atlantic Regional Conference on Differential Equations (SEARCODE) 2010. Virginia Tech, October 1 and 2, 2010.
6. Spring 2010 MAA MD/DC/VA Sectional meeting at VSU on April 16-17, 2010.
7. Virginia State University, October 30, 2009.
8. The 29th Annual Southeastern-Atlantic Regional Conference on Differential Equation, Mercer University in Macon, GA on October 16 and 17, 2009.
9. Differential Analysis and Applications Seminar, Virginia State University, September 25 and October 2, 2009.
10. 8<sup>th</sup> Mississippi State - UAB Conference on Differential Equations & Computational Simulations, Chaired session B3. Mississippi State University, May 7-9, 2009
11. The 28th Annual Southeastern-Atlantic Regional Conference on Differential Equation, University of Arkansas at Little Rock, October 10 and 11, 2008
12. AMS and MAA Joint Mathematics Meetings, New Orleans, LA, Jan. 7, 2007.
13. MAA MD-DC-CA Regional Meeting, Farmville, VA, Nov. 4. 2006.
14. The 26th Annual Southeastern-Atlantic Regional Conference on Differential Equation, University of North Carolina at Greensboro, Greensboro, NC, Oct. 28. 2006.
15. MAA Joint Regional Meeting, Mesa State University, Grand Junction, Co, Apr. 2006.



16. AMS and MAA Joint Mathematics Meeting, San Antonio, TX, Jan. 2006,
17. MAA Intermountain Regional Meeting, Weber State University, Ogden, UT, Mar 2004
18. Colloquium Talk, Michigan State University, East Lansing, MI, May 2003.
19. Five Talks in Annual Spring Student Research Conference, Brigham Young University , 2002-2006

ATTENDED  
CONFERENCE  
JUDGE/CHAIR  
FOR  
UNDERGRADUATE  
RESEARCH

1. Judge for undergraduate student poster session, 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS), Seattle, Washington, Nov. 11- Nov. 15, 2015.
2. HBCU-UP/CREST PI/PD Meeting, Washington, DC, February 18-19, 2015
3. New Perspectives on the  $N$ -body Problem, Banff International Research Station (BRIS), Canada, Jan. 13-18, 2013.
4. Chair and Judge for undergraduate student research session, Joint Mathematics Meetings, San Diego, CA, January 9-12, 2013.
5. Trends in Undergraduate Research in the Mathematical Sciences (TURMS) Conference, Westin OHare Hotel in Chicago, October 26-28, 2012.
6. Modeling & Simulation Multi-Con, Organized by the NSTA at Virginia Modeling, Analysis & Simulation Center (VMASC), Suffolk, VA, September 25-27, 2012.
7. Inaugural event of the National Modeling and Simulation Coalition (NMSC) in Washington DC, February 6, 2012.
8. The 2011 Homeland Security Symposium: Disasters, Preparing, Surviving and Responding to Dynamic Threats, Organized by the National Defense Industrial Association (NDIA). Arlington, VA, Sept. 26-27, 2011.
9. Institute for Mathematics and Its Applications (IMA) New Directions Short Course on Invariant Objects in Dynamical Systems and their Applications, University of Minnesota, June 20-July 1, 2011.
10. Faculty Development Workshop on Teaching Writing and Critical Thinking in General Education and the Academic Disciplines, VSU, May 23-27, 2011.
11. Chair of One Special Session: Research by Undergraduates, 2010 CURM Conference. Brigham Young University, Provo, Utah. March 16-20, 2011.
12. The 2011 Emerging Research National (ERN) Conference in STEM, Washington Hilton Hotel, Washington D.C., February 24-27, 2011. (Kenya Taylor-Hodge presented the undergraduate research "Super Central Configurations of the three-body problem with the inverse integer power law". She received the first place award in the category of oral presentation in mathematics/statistics. I was invited to be a judge.)
13. Midwest Dynamical System Conference. Northwestern University, Evanston, IL. October 29-31, 2010.
14. Chair of Special Session: Research by Undergraduates 4, 2010 CURM Conference. Brigham Young University, Provo, Utah. March 19-20, 2010.
15. Faculty Development Workshop on Implementing the Key Components of the Virginia State University Quality Enhancement Plan, Virginia State University, June 2-5, 2009.
16. 2008 Midwest Dynamical System Conference In Honor of Eric Bedford's 60th Birthday. Indiana University, Bloomington. Friday, October 3 - Sunday, October 5, 2008.