

Curriculum Vitae
ANNA R. GHAZARYAN
Department of Mathematics, Miami University
Bachelor Hall, Oxford, OH 45056
Office Phone: (513)-5290582, e-mail: ghazarar@miamioh.edu

EDUCATION

- Ph.D. in Mathematics, Ohio State University, Columbus, OH, 2005.
- M.S. in Earthquake Engineering, American University of Armenia, Yerevan, Armenia, 1996.
- M.S. in Mathematics (Candidate of Sciences), Yerevan State University, Yerevan, Armenia, 1994.
- B.S. in Mathematics (Diploma of a Mathematician and Teacher of Mathematics), Yerevan State University, Yerevan, Armenia, 1990.

WORK EXPERIENCE

- 2021- present: Professor, Department of Mathematics, Miami University, Oxford, OH.
- 2016- 2021: Associate Professor, Department of Mathematics, Miami University, Oxford, OH.
- 2010 - 2016: Assistant Professor, Department of Mathematics, Miami University, Oxford, OH.
- 2008 - 2010: Robert D. Adams Visiting Assistant Professor, Department of Mathematics, University of Kansas, Lawrence, KS.
- 2005 - 2008: Postdoctoral Research Fellow, Department of Mathematics, University of North Carolina, Chapel Hill, NC.

GRANTS AND AWARDS

External Grants and Awards: \$10,000 or more

- NSF Grant DMS-1919555 to organize Fall 2019 Mathematics Conference: Differential Equations and Dynamical Systems, DMS-1603812, \$11,552.
- NSF Grant DMS-1603812 to organize Fall 2016 Mathematics Conference: Differential Equations and Dynamical Systems, DMS-1603812, \$10,000.
- NSF Research Grant DMS-1311313. \$105,524. 2013 - 2016. Title: On three different manifestations of instability of fronts in parabolic and partially parabolic systems.
- Collaboration Grant for Mathematicians from Simons Foundation \$35,000. Duration 09.1.2012 - 08.31.2017. Title: Traveling waves in nonlinear coupled systems.
- NSF Research Grant DMS-0908009. \$63,087. 2009 - 2011. Title: Traveling Fronts with Unstable Continuous Spectrum: Geometric Structure and Nonlinear Stability Properties.

External Grants and Awards: under \$10,000

- AWM-NSF Travel Grant to participate in the *SIAM conference on Applications of Dynamical Systems* in Snowbird, UT, 2019.
- NSF Travel Grant to participate in the workshop *Dynamics of Patterns*, Oberwolfach, Germany, 2012.
- NSF Travel Grant to participate in the conference *Symmetries of Differential Equations: Frames, Invariants and Applications*, Minneapolis, MN, 2012.
- NSF Travel Grant to participate in the *1st PRIMA Congress*, Sydney, Australia, 2009.
- AWM Travel Grant to participate in the *SIAM Annual Meeting*, San Diego, CA, 2008.
- AWM Travel Grant to participate in the workshop *Women in Mathematics: The Legacy of Ladyzhenskaya and Oleinik*, Berkeley, CA, 2006.
- AWM Travel Grant to participate in the *SIAM Annual Meeting*, New Orleans, LA, 2005.

- AWM Travel Grant to participate in the workshop *Career Options for Women in Mathematical Sciences*, Minneapolis, MN, 2005.

Internal (Miami University) Grants and Awards

- Miami Faculty Research (CFR) Grant, 2019: Summer Research Appointment; Research Graduate Assistantship for one student for 2019/2020.
- Barney Fellowship awarded to design a new undergraduate course in partial dif. equations, 2017.
- Miami Faculty Research (CFR) Grant, 2011: Summer Research Appointment; Research Graduate Assistantship for one student for 2011/2012.
- Center for Teaching Excellence Grant: Major Teaching Project for Departments/Programs. Title: Enhancing teaching and learning in MTH245: Differential Equations for Engineers, 2012.

PEER-REVIEWED RESEARCH PUBLICATIONS

1. M. Bakhshi, A. Ghazaryan, V. Manukian, N. Rodriguez. Traveling wave solutions in a model for social outbursts in a tension-inhibitive regime. *Studies in Applied Mathematics*, 147:2 (2021), 650 - 674.
2. A. Ghazaryan, S. Lafortune, C. Linhart. Flame propagation in a porous medium. *Physica D: Nonlinear Phenomena* 413 (2020), Article 132653.
3. A. Ghazaryan, S. Lafortune, V. Manukian. Spectral Analysis of Fronts in a Marangoni-Driven Thin Liquid Film Flow Down a Slope. *SIAM J. on Applied Mathematics*, 80(1) (2020), 95- 118.
4. H. Cai, A. Ghazaryan, V. Manukian. Fisher-KPP dynamics in diffusive Rosenzweig-MacArthur and Holling-Tanner models. *Math. Model. Nat. Phenom.* 14:4 (2019).
5. A. Ghazaryan, Y. Latushkin, X. Yang. Stability of a planar front in a multidimensional reaction-diffusion system. *SIAM J. on Math. Analysis* 50:5 (2018) 5569 - 5615.
6. A. Ghazaryan, Y. Latushkin, A. Pogan. Spectrum of non-planar traveling waves. *Integral Equations Operator Theory* 90:3 (2018) 20pp.
7. A. Ghazaryan, S. Lafortune, V. Manukian. Stability of nonlinear waves and patterns and related topics. *Philos. Trans. A Math. Phys. Eng. Sci.* 2018 Apr 13; 376(2117). pii: 20180001.
8. A. Ghazaryan, S. Lafortune, P. McLarnan. Combustion waves in hydraulically resistant porous media in a special parameter regime. *Physica D: Nonlinear Phenomena*, 332:1 (2016) 23 - 33.
9. A. Ghazaryan, S. Lafortune, V. Manukian. Stability of front solutions in a model for a surfactant driven flow. *Physica D: Nonlinear Phenomena*, 307:1 (2015) 1 - 13.
10. A. Ghazaryan, S. Lafortune, P. McLarnan. Stability analysis for combustion fronts traveling in hydraulically resistant porous media. *SIAM J. on Applied Mathematics*, 75:3 (2015) 1225 - 1244.
11. A. Ghazaryan, V. Manukian. Coherent structures in a model for mussel-algae interaction. *SIAM J. on Dynamical Systems*, 14:2, (2015) 893 - 913.
12. A. Ghazaryan, V. Manukian, S. Schecter. Traveling waves in Holling-Tanner model with diffusion. *Proceedings of the Royal Society of London A.* <http://dx.doi.org/10.1098/rspa.2015.0045>.
13. A. Ghazaryan, Y. Latushkin, S. Schecter. Stability of traveling waves in partly parabolic systems. *Mathematical Modeling of Natural Phenomena.* 8:5 (2013) 32 - 48.
14. A. Ghazaryan, S. Schecter, P. Simon. Gasless combustion fronts with heat loss. *SIAM J. on Applied Mathematics*, 73 (3), 2013, 1303 - 1326.
15. A. Ghazaryan, J. Humpherys, J. Lytle. Spectral behavior of combustion fronts with high exothermicity. *SIAM J. on Applied Mathematics*, 73:1 (2013) 422 - 437.
16. A. Ghazaryan, C. K. R. T. Jones. On the existence of high Lewis number combustion fronts. *J. of Mathematics and Computers in Simulation* 82 (2012) 1133 - 1141.
17. A. Ghazaryan, Y. Latushkin, S. Schecter. Stability of traveling waves for degenerate systems of reaction-diffusion equations. *Indiana Univ. Math. J.* 60 (2011) 443 - 472.
18. A. Ghazaryan, Y. Latushkin, S. Schecter. Stability of traveling waves for a class of reaction-diffusion systems that arise in chemical reaction models. *SIAM J. Math. Anal.* 42 (2010) 2434 - 2472.

19. A. Ghazaryan, Y. Latushkin, S. Schecter, A. J. De Souza. Stability of traveling waves in a model for gasless combustion. *Archive for Rational Mechanics and Analysis* 198 (2010) 981 - 1030.
20. A. Ghazaryan, P. Gordon, A. Virodov. Stability of fronts and transient behavior in KPP systems. *Proc. Royal Society A* 466 (2010), no. 2118, 1769 - 1788.
21. M. Beck, A. Ghazaryan, B. Sandstede. Nonlinear convective stability of traveling fronts near Turing and Hopf instabilities. *J. of Differential Equations* 246 (2009) 4371 - 4390.
22. A. Ghazaryan. Nonlinear stability of high Lewis number combustion fronts. *Indiana University Math. J.* 58 (2009) 181 - 212.
23. A. Ghazaryan, C. K. R. T. Jones. On the stability of high Lewis number combustion fronts. *Discrete and Continuous Dynamical Systems* 24 (2009) 809 - 826.
24. A. Ghazaryan. On the convective nature of instability of a front undergoing a supercritical Turing bifurcation. *J. of Mathematics and Computers in Simulation: On Nonlinear Waves: Computation and Theory* 80 (2009) 10 - 19.
25. A. Ghazaryan, P. Gordon. The KPP type flame fronts in porous media. *Nonlinearity* 21 (2008) 973 - 992.
26. A. Ghazaryan, P. Gordon, C. K. R. T. Jones. Traveling waves in porous media combustion: uniqueness of waves for small thermal diffusivity. *J. of Dynamics and Differential Equations* 19 (2007) 951 - 966.
27. A. Ghazaryan, B. Sandstede. Nonlinear convective instability of Turing-unstable fronts near onset: A case study. *SIAM Journal on Applied Dynamical Systems* 6 (2007) 319 - 347.

OTHER PUBLICATIONS:

1. A. Ghazaryan, R. Kuske, and E. Lawrence. Almost 20 years of the AWM mentor network. In the AWM-Springer book *Association for Women in Mathematics: The First Fifty Years*, editors: J. Beery, S. Greenwald, and C. Kessel. In print.
2. K. Burke, A. Ghazaryan, R. Marangell. 2020: The Editorial Transition. Editorial. *DSWeb*. <https://dsweb.siam.org/The-Magazine/All-Issues/2018-the-editorial-transition>.
3. A. Ghazaryan. Edward Fraenkel (1927-2019). *DSWeb*. <https://dsweb.siam.org/The-Magazine/All-Issues/edward-fraenkel-1927-2019>
4. D. Abrams, K. Burke, A. Ghazaryan, M. Porter. 2018: The Editorial Transition. Editorial. *DSWeb*. <https://dsweb.siam.org/The-Magazine/All-Issues/2018-the-editorial-transition>.
5. PhD Thesis: Nonlinear convective instability of fronts: A case study. Adviser: Prof. B. Sandstede. www.ohiolink.edu/etd/view.cgi?acc_num=osu1117552079, 2005.

GRADUATE STUDENTS SUPERVISED

- Obed Domson, MS, 2021.
- Gabriel Preston, MS, 2021.
- William Ofori-Atta, MS, 2019.
- Steven Collar, MS, 2018.
- Son Van, MS, 2015.
- Peter McLarnan, MS, 2013.

UNDERGRADUATE ADVISING AND MENTORING:

Faculty advisor for Miami University undergraduate research proposals

- Fall 2016. Benard Neuhaus.
Project Title: Mathematical Analysis of the Equilibria of Mussel Populations.
- Spring 2015. Team: Changrui Liu and Stephen Colegate.
Project Title: Mathematical Models for the Dynamics of Tobacco and Alcohol Use.

- Spring 2015. Team: Robert Doughty and Eli Thompson.
Project Title: Analysis of the Dynamics of Malaria Transmission.

Research adviser for undergraduate student publications:

1. Stephen Colegate and Charlie Liu. Mathematical Modeling of drug use: the dynamics of mono-substance dependence for two addictive drugs. *Pi Mu Epsilon Journal*. Vol.14, No 7, 2017.
2. Robert Doughty and Eli Thompson. Mathematical Analysis of Ivermectin as a Malaria Control Method, *SIAM Undergraduate Research Online (SIURO)*, July 2016.
3. Teng Zhang and Son Van. A study of a debt-influenced equilibrium of the Keen model. *Pi Mu Epsilon Journal*, v. 14, number 4, pp. 275 - 281, 2016.

Publications with undergraduate (*) and graduate (**) students from Miami University:

1. M. Bakhshi**, A. Ghazaryan, V. Manukian, N. Rodriguez. Traveling wave solutions in a model for social outbursts in a tension-inhibitive regime. *Studies in App. Mathematics*. 147:2 (2021), 650–674.
2. H. Cai*, A. Ghazaryan, V. Manukian. Fisher-KPP dynamics in diffusive Rosenzweig-MacArthur and Holling-Tanner models. *Math. Model. Nat. Phenom*. 14:4 (2019).
3. A. Ghazaryan, S. Lafortune, P. McLarnan**. Combustion waves in hydraulically resistant porous media in a special parameter regime. *Physica D: Nonlinear Phenomena*, 332:1 (2016) 23–33.
4. A. Ghazaryan, S. Lafortune, P. McLarnan**. Stability analysis for combustion fronts traveling in hydraulically resistant porous media. *SIAM J. on Applied Mathematics*. 75:3 (2015) 1225–1244.

SERVICE TO MIAMI UNIVERSITY

- Graduate Program Director, Department of Mathematics, August 2021 - now.
- University Senate, August 2020 - now.
- Governance committee, College of Arts and Sciences, Spring 2021-now.
- University Student Appeals Board, Spring 2020-Fall 2021.
- Committee on Faculty Research, Fall 2019-now.
- Affordable and Open Educational Resource Committee (AOERC), August 2019 - Fall 2021.
- Co-organizer and co-director of the five-week long summer Study Abroad Programs:
 - Math in Spain 2018;
 - Math in Italy 2017;
 - Math in London and Dublin 2016;
 - Math in Berlin 2015;
 - Math in London 2014.
- Chair of the Hiring Committee, Department of Mathematics, 2018.
- Curriculum Development:
 - MTH253 Introduction to Technical Computing;
 - MTH455/555 Introduction to Partial Differential Equations;
 - MTH655 Advanced Differential Equations.

PROFESSIONAL SERVICE

- Member of the organizing committee for One World Dynamics Seminar. Sep. 2021-now.
- Member of the Scientific Program Committee for the 12th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, 2022.
- Student poster judge, SIAM Conference on Applications of Dynamical Systems, 2021.
- Member of the Officer Nominating Committee for the SIAM Activity Group on Dynamical Systems, 2019.
- Member of the Selection Committee for the SIAM Martin Kruskal Lecture Award, SIAM Nonlinear Waves and Structures activity group, 2018.

- Member of the Scientific Program Committee for the 11th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, 2019.
- Editor-in-Chief of the Portal for Dynamical Systems online magazine DSW, 2019- 2021.
- Secretary of the SIAM Activity group on Dynamical Systems (elective), 2017- 2019.
- Chief Editor of Dynamical Systems online magazine DSWeb, 2017- 2019.
- Editor of a thematic issue Stability of nonlinear waves and patterns and related topics, Philosophical Transactions of the Royal Society A: Mathematical, Physical, and Engineering Sciences, 2018.
- Member of the Scientific Program Committee for the Tenth IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, 2017.
- Chair of AWM Mentor Network Committee, 2010 - 2017. Co-chair, 2008 - 2010.
- IMA NSF Review Panel, 2014.
- Reviewer for
 - Acta Applicandae Mathematicae;
 - Annales de l'IHP-Analyse;
 - AMS Mathematical Reviews (published reviews);
 - Applied Mathematical Modelling;
 - Applied Numerical Mathematics;
 - Chaos, Solitons and Fractals: the interdisciplinary journal of Nonlinear Science, and Nonequilibrium and Complex Phenomena
 - Communications on Pure and Applied Analysis;
 - Computational Geosciences;
 - CRC Press, Taylor & Francis Group;
 - Differential Equations and Dynamical Systems;
 - Electronic Journal of Qualitative Theory of Differential Equations;
 - International Journal of Mathematics and Mathematical Sciences;
 - Journal of Contemporary Mathematical Analysis;
 - Journal of Differential Equations;
 - Journal of Nonlinear Science;
 - Nonlinear Analysis: Theory, Methods & Applications;
 - Nonlinearity;
 - Open Textbook Library;
 - Philosophical Transactions of the Royal Society A
 - Physica D: Nonlinear Phenomena;
 - Proceedings of Royal Society A;
 - Sema-Simai book project;
 - SIAM Journal on Applied Mathematics;
 - SIAM Journal on Dynamical Systems;
 - SIAM Journal on Mathematical Analysis;
 - SIAM Undergraduate Research Online (SIURO);
 - Studies in Applied Mathematics (Wiley Periodicals, Inc.);
 - Texts in Biomathematics;
 - Zentralblatt MATH (published reviews).
- Organizer of workshops and conferences
 - Fall 2019 Mathematics Conference: Differential Equations and Dynamical Systems and PME Undergraduate Student Conference, Miami University, Oxford, OH, Sep 20-21, 2019.
 - BIRS (Banff International Research Station) Workshop Stability of Multidimensional Waves, Banff International Research Station, Banff, Canada, June 2 -9, 2019.
 - Fall 2016 Mathematics Conference: Differential Equations and Dynamical Systems and PME Undergraduate Student Conference, Miami University, Oxford, OH, Sep 23-24, 2016.

- Conference: Geometry and Analysis of Dynamical Systems, North Carolina State University, Raleigh, NC, Feb. 2008, www.math.ncsu.edu/GADS.
- Organizer of 28 minisymposia and special sessions for the following meetings (APPENDIX B):
 - IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory- 2022, 2019, 2017, 2015.
 - SIAM Conference on Applications of Dynamical Systems -2021, 2019, 2017, 2015, 2013, 2011, 2007.
 - AIMS Conference on Dynamical Systems -2020 (postponed to 2021), 2014, 2012.
 - SIAM Conference on Nonlinear Waves and Coherent Structures -2020, 2018, 2016, 2014, 2010, 2008, 2006.
 - International Congress on Industrial and Applied Mathematics -2019.
 - AMS Sectional Meetings -2018, 2017, 2012.
 - SIAM Conference on Analysis of Partial Differential Equations -2017, 2006.
 - Joint SIAM/RSME-SCM-SEMA Meeting on Emerging Topics in Dynamical Systems and Partial Differential Equations -2010.

PRESENTATIONS:

2004-now: 77 presentations (APPENDIX C) at international and national meetings, including a *plenary talk* at the meeting of the Ohio Section of the MAA in 2020, an *invited lecture* at the John H. Barrett Memorial Lectures at University of Tennessee in 2016, and talks at Oberwolfach Workshops in 2021 and 2012 and BIRS workshops in Banff (2011) and Oaxaca (2017),

PROFESSIONAL TRAINING AND EXPERIENCES:

- Workshop on Dynamics of Waves and Patterns, Oberwolfach, Germany, Aug. 8 - 14, 2021.
- Focused Research Workshop on Stability of Multidimensional Waves, Banff International Research Station (BIRS), Banff, Canada, June 2 - 9, 2019.
- Informal Analysis Seminar, Kent State University, Kent OH. Nov. 9 - 10, 2019.
- Workshop on Geometrical Methods, Non-Self-Adjoint Spectral Problems, and Stability of Periodic Structures, BIRS Casa Matematica, Oaxaca, Mexico, June 18 - 23, 2017.
- Workshop on Dynamics of Patterns, Oberwolfach, Germany, Dec. 16 - 22, 2012.
- IMA Annual Program Infinite Dimensional and Stochastic Dynamical Systems and their Applications, long-term visiting researcher, Sep. 10 - Dec. 10, 2012, Minneapolis, MN.
- Workshop on Localized Multi-Dimensional Patterns in Dissipative Systems: Theory, Modeling, and Experiments, BIRS, Banff, Canada, July 24 - July 29, 2011.
- Workshop on Ocean Ecologies and Their Physical Habitats in a Changing Climate, Mathematical Biosciences Institute, Columbus, OH, June 20 - July 1, 2011.
- Workshop on Multidimensional Localized Structures, Rome, Italy, July 18 - 19, 2008.
- Workshop on Stability of Nonlinear Waves, Seattle, WA, Sep. 6 - 8, 2006.
- Workshop on Stability Criteria for Multi-Dimensional Waves and Patterns, American Institute of Mathematics (AIMS), Palo Alto, CA, May 16 - 20, 2005.
- AWM Workshop on Career Options for Women in Mathematical Sciences, Institute for Mathematics and its Applications, Minneapolis, MN, Feb. 4 - 5, 2005.
- Career Workshop: Connecting Women in Mathematical Sciences to Industry, Institute for Mathematics and its Applications (IMA), Minneapolis, MN, Sep. 8 - 10, 2000.

PROFESSIONAL MEMBERSHIPS: American Mathematical Society (AMS); Society for Industrial and Applied Mathematics (SIAM); Association for Women in Mathematics (AWM).

LANGUAGES: Armenian (native), English (fluent), Russian (fluent).

APPENDIX A. Courses taught at Miami University:

- Fall 2021: MTH 347 Differential Equations (2 sections), MTH 253 Intro to Tech. Computing.
- Summer 2021: MTH 347 Differential Equations, MTH 435/535 Math. Modeling Seminar.
- Spring 2021: MTH 251 Calculus II (2 sections).
- Fall 2020: MTH 245 Differential Equations for Engineers (2 sections).
- Summer 2020: MTH 347 Differential Equations, MTH 435/535 Math. Modeling Seminar.
- Spring 2020: MTH 347 Differential Equations, MTH 455/555 Partial Differential Equations.
- Fall 2019: MTH 251 Calculus II, MTH 347 Differential Equations.
- Spring 2019: MTH 252 Calculus III (2 sections).
- Fall 2018: MTH 347 Differential Equations (2 sections).
- Summer 2018: MTH 435 Math. Modeling Seminar (Study Abroad Program).
- Spring 2018: MTH 251 Calculus II, MTH 440/540 Topics in Analysis.
- Fall 2017: Spring 2019: MTH 252 Calculus III.
- Summer 2017: MTH 435 Math. Modeling Seminar (Study Abroad Program).
- Spring 2017: MTH 435/535 Math. Modeling Seminar, MTH 440/540 Topics In Analysis.
- Summer 2016: MTH 435 Math. Modeling Seminar (Study Abroad Program).
- Spring 2016: MME/MTH 495/595 Applied Nonlinear Dynamics, MTH 252 Calculus III.
- Fall 2016: MTH 251 Calculus II, MTH 347 Differential Equations.
- Fall 2015: MTH 435/535 Math. Modeling Seminar, MTH 245 Differential Equations for Engineers.
- Summer 2015: MTH 435 Math. Modeling Seminar (Study Abroad Program).
- Spring 2015: MTH 252 Calculus III, MTH 347 Differential Equations.
- Fall 2014: MTH 347 Differential Equations/Engineers (2 sections).
- Summer 2014: MTH 435 Math. Modeling Seminar (Study Abroad Program).
- Spring 2014: MME/MTH 495/595 Applied Nonlinear Dynamics.
- Fall 2013: MTH 347 Differential Equations (two sections), MTH 435 Math. Modeling Seminar.
- Summer 2013: MTH 151 Calculus I.
- Spring 2013: MTH 347 Differential Equations (two sections).
- Spring 2012: MTH 245 Differential Equations for Engineers.
- Fall 2011: MTH 151 Calculus I, MTH 435/535 Math. Modeling Seminar.
- Spring 2011: MME/MTH 495/595 Applied Nonlinear Dynamics.
- Fall 2010: MTH 153 Calculus I, MTH 347 Differential Equations, MTH 222 Linear Algebra.

APPENDIX B. MINISYMPOSIA AND SPECCIAL SESSIONS ORGANIZED

1. Minisymposium Existence and stability of traveling waves in nonlinear systems. The 12th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, to take place on Mar. 30-Apr. 1, 2022.
2. Minisymposium Recent Developments in Pattern and Wave Formation: Theory and Applications-Part I-II. SIAM Conference on Applications of Dynamical Systems, remote, 2021.
3. Minisymposium Propagation of fronts and traveling waves in physics, chemistry, combustion, biological systems and related topics. The 13th AIMS Conference on Dynamical Systems, Differential Equations and Applications, 2020, Atlanta, USA. (Postponed to June, 2021, because of COVID19).
4. Minisymposium Recent developments in pattern and wave formation: theory and applications. SIAM Conference on Nonlinear Waves and Coherent Structures, 2020 (Cancelled-COVID19).
5. Minisymposium Existence and stability of nonlinear waves - Parts 1-2, the 9th International Congress on Industrial and Applied Mathematics (ICIAM 2019), Valencia, Spain, 2019
6. Minisymposium Existence and Stability of Nonlinear Waves: Theory and Numerics - Parts I-II. SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2019.
7. Minisymposium Stability and traveling waves - Parts I-IX. 11th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, 2019.

8. Minisymposium Existence and Stability of traveling waves- Parts I-III. SIAM Conference on Nonlinear Waves and Coherent Structures, Anaheim-Orange County, Orange, CA, 2018.
9. Special Session (16 speakers) Nonlinear Waves and Patterns at AMS Spring Central Sectional Meeting, Ohio State University, Columbus, OH, 2018.
10. Minisymposium Waves and Patterns - Parts I and II, SIAM Conference on Analysis of Partial Differential Equations, Baltimore, MD, 2017.
11. Minisymposium Recent Results on Traveling Waves in Systems of PDEs - Parts I and II, SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2017.
12. Minisymposium Wave Phenomena in Combustion- Parts I - II, the 10th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, 2017.
13. Special Session (12 speakers) Nonlinear Waves: Analysis and Numerics at AMS Spring Southeastern Sectional Meeting College of Charleston, Charleston, SC, 2017.
14. Minisymposium Existence and Stability of Nonlinear Waves and Patterns - Parts I - IV at SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia, PA, 2016.
15. Minisymposium Nonlinear Waves in Coupled Systems - Parts I and II at the SIAM conference on Applications of Dynamical Systems, Snowbird, UT, 2015.
16. Minisymposium on Geometric Techniques in the Analysis of Traveling Waves, the 9th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, 2015.
17. Minisymposium on Spectral and Geometric Methods in Stability of Waves and Patterns: Parts I-V, SIAM Conference on Nonlinear Waves and Coherent Structures, Cambridge, UK, 2014.
18. Minisymposium on Traveling Waves and Patterns: Parts I-IV, the 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Spain, 2014.
19. Minisymposium Existence and Stability of Traveling Wave Solutions at the SIAM conference on Dynamical Systems, Snowbird, UT, 2013.
20. Special Session on Nonlinear Waves and Patterns at AMS Central Fall Section Meeting, University of Akron, Akron, OH, 2012.
21. Special Session on Mathematical Models for Upwelling Ocean Currents and Related Phenomena (12 speakers) at the 9th AIMS conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, 2012.
22. Minisymposium Existence and Stability of Nonlinear Waves in Coupled Systems: Parts I, II, III, SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2011.
23. Minisymposium Recent Developments in Analysis of Traveling Waves: Theory and Applications - Parts I - II, SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia, PA, 2010.
24. Minisymposium Stability of Traveling Waves, Parts I - IV, Joint SIAM/RSME-SCM-SEMA Meeting on Emerging Topics in Dynamical Systems and Partial Differential Equations, Barcelona, Spain, 2010.
25. Minisymposium Traveling Waves in Engineering Applications, SIAM Conference on Nonlinear Waves and Coherent Structures, Rome, Italy, 2008.
26. Minisymposium Existence, Uniqueness and Stability of Combustion Wavefronts, SIAM Conference on Application of Dynamical Systems, Snowbird, UT, 2007.
27. Minisymposium Various Aspects of the Stability of Traveling Waves, SIAM Conference on Nonlinear Waves and Coherent Structures, Seattle, WA, 2006.
28. Minisymposium Geometric Singular Perturbation Theory and Wave Phenomena, SIAM Conference on Analysis of Partial Differential Equations, Boston, MA, 2006.

APPENDIX C. PRESENTATIONS AT CONFERENCES AND SEMINARS

1. Oberwolfach Workshop on Dynamics of Waves and Patterns (hybrid meeting), remote presentation, Oberwolfach, Germany, 2021.

2. SIAM Conference on Applications of Dynamical Systems, 2021. Remote meeting.
3. Fall 2020 meeting of the Ohio Section of MAA, 2020. Remote meeting. Plenary talk.
4. Analysis Seminar, University of Kansas, Lawrence, KS, 2020. Remote presentation.
5. SIAM Conference on Analysis of Partial Differential Equations, La Quinta, CA, 2019.
6. 9th International Congress on Industrial and Applied Mathematics, Valencia, Spain, 2019.
7. SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2019.
8. The 11th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2019.
9. AMS Fall Central Sectional Meeting, Ann Arbor, MI, 2018.
10. SIAM Conference on Nonlinear Waves and Coherent Structures, Anaheim-Orange County, Orange, CA, 2018.
11. KUMUNU PDE, Dynamical Systems and Applications, University of Kansas, Lawrence, KS, 2018.
12. AMS Spring Central Sectional Meeting, Ohio State University, Columbus, OH, 2018.
13. SIAM Conference on Analysis of Partial Differential Equations, Baltimore, MA, 2017.
14. BIRS Workshop on Geometrical Methods, Non-Self-Adjoint Spectral Problems, and Stability of Periodic Structures, Casa Matematica, Oaxaca, Mexico, 2017.
15. SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2017.
16. KUMUNU PDE, Dynamical Systems and Applications, University of Nebraska, Lincoln, NE, 2017.
17. The 10th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2017
18. AMS Spring Southeastern Sectional Meeting, College of Charleston, Charleston, SC, 2017.
19. PDE seminar, OSU, 2017.
20. SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia, PA, 2016.
21. John H. Barrett Memorial Lectures. University of Tennessee, Knoxville, TN, 2016.
22. KUMU PDE, Dynamical Systems, Applications, University of Missouri, Columbia, MO, 2016.
23. SIAM conference on Analysis of Partial Differential Equations, 2016.
24. Equadiff, Lyon, France, 2015.
25. SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2015.
26. KUMU PDE, Dynamical Systems and Applications, University of Kansas, Lawrence, KS, 2015.
27. The 9th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2015.
28. AMS Spring Southeastern Sectional Meeting, Huntsville, AL, 2015.
29. AMS Central Spring Sectional Meeting, Michigan State University, East Lansing, MI, 2015.
30. SIAM Conference on Nonlinear Waves and Coherent Structures, Cambridge, UK, 2014.
31. The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Spain, 2014.
32. Workshop on Stability of Solitary Waves, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, 2014.
33. Colloquium, Department of Mathematical Sciences, University of Cincinnati, Cincinnati, OH, 2014.
34. SIAM Conference on Analysis of Partial Differential Equations, Orlando, FL, 2013.
35. Stochastic Adaptive Control/Interdisciplinary Research Seminar & AWM Student Chapter Meeting, University of Kansas, Lawrence, KS, 2013.
36. Colloquium, Department of Mathematics, College of Charleston, Charleston, SC, 2013.
37. The 8th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2013.
38. PDE and Applied Mathematics Seminar, University of Akron, Akron, OH, 2013.
39. Workshop on Dynamics of Patterns, Oberwolfach, Germany, 2012.
40. Seminar, Department of Mathematics, University of Minnesota. Minneapolis, MN, 2012.

41. AMS Central Fall Section Meeting, University of Akron, Akron, OH, 2012.
42. Summer Undergraduate Mathematics Research Institute (SUMSRI) Colloquium, Miami University, Oxford, OH, 2012.
43. The 9th AIMS conference on Dynamical Systems, Differential Equations and Applications, Orlando, FL, 2012. (Two different talks.)
44. AMS Spring Central Section Meeting, Lawrence, KS, 2012.
45. Colloquium, Department of Mathematics, Statistics and Computer Science, Marquette University, Milwaukee, WI, 2011.
46. Workshop on Localized Multi-Dimensional Patterns in Dissipative Systems: Theory, Modeling, and Experiments, BIRS, Banff, Canada, 2011.
47. SIAM Conference on Applications of Dynamical Systems, Snowbird, UT, 2011.
48. The 7th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2011.
49. SIAM Conference on Nonlinear Waves and Coherent Structures, Philadelphia, PA, 2010.
50. Joint SIAM/RSME-SCM-SEMA Meeting on Emerging Topics in Dynamical Systems and Partial Differential Equations, Barcelona, Spain, 2010.
51. The 8th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Dresden University of Technology, Dresden, Germany, 2010. (Two different talks.)
52. Differential Equations Seminar, University of Missouri, Columbia, MO, 2009.
53. Seminar on Stochastic Analysis and Control, University of Kansas, Lawrence, KS, 2009.
54. Stochastic PDE Seminar, Brigham Young University, Provo, UT, 2009.
55. 1st Pacific Rim Mathematical Association (PRIMA) Congress, Sydney, Australia, 2009.
56. SIAM Conference on Application of Dynamical Systems, Snowbird, UT, 2009.
57. The 6th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2009.
58. AMS Southeastern Section Meeting, Huntsville, AL, 2008.
59. SIAM Conference on Nonlinear Waves and Coherent Structures, Rome, Italy, 2008.
60. AWM Workshop at SIAM Annual Meeting, San Diego, CA, 2008.
61. SIAM Annual Meeting, San Diego, CA, 2008.
62. Colloquium, Department of Mathematics, University of Alabama, Huntsville, AL, 2008.
63. Conference on the Geometry and Analysis of Dynamical Systems, Raleigh, NC, 2008.
64. SIAM Conference on Analysis of Partial Differential Equations, Mesa, AZ, 2007.
65. Differential Equation Seminar, North Carolina State University, Raleigh, NC, 2007.
66. International Conference on Dynamical Methods and Modeling, Valladolid, Spain, 2007.
67. Equadiff 07, Vienna, Austria, 2007.
68. SIAM Conference on Application of Dynamical Systems, Snowbird, UT, 2007.
69. Postdoctoral seminar, Mathematical Science Research Institute, Berkeley, CA, 2007.
70. The 5th IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory, Athens, GA, 2007.
71. Seminar, University of Kansas, Lawrence, KS, 2007.
72. South Eastern Atlantic Mathematical Sciences Workshop, Charleston, SC, 2006.
73. SIAM Conference on Nonlinear Waves and Coherent Structures, Seattle, WA, 2006.
74. SIAM Conference on Analysis of Partial Differential Equations, Boston, MA, 2006.
75. AMS Spring Central Section Meeting, Notre Dame, IN, 2006.
76. AWM Workshop, SIAM Annual Meeting, New Orleans, LA, 2005.
77. Applied Mathematics Seminar, Ohio State University, Columbus, OH, 2004.