

JASON L. METCALFE

CURRICULUM VITAE

Bowman and Gordon Gray Distinguished Term Professor metcalfe@email.unc.edu
Department of Mathematics <http://metcalfe.web.unc.edu>
University of North Carolina
Chapel Hill, NC 27599-3250

Education.

JOHNS HOPKINS UNIVERSITY, Ph.D., Mathematics. May 2003
Dissertation: *Global Strichartz Estimates for Solutions to the Wave Equation
Exterior to a Convex Obstacle*
Advisor: Prof. Christopher Sogge
UNIVERSITY OF WASHINGTON, B.S., Mathematics with distinction June 1998
UNIVERSITY OF WASHINGTON, B.S., Computer Science June 1998

Professional Experience.

Bowman and Gordon Gray Distinguished Term Professor, University of North Carolina, Chapel Hill 2021-present
Professor, Department of Mathematics, University of North Carolina, Chapel Hill 2017 - present
Associate Professor, Department of Mathematics, University of North Carolina, Chapel Hill 2012 - 2017
Assistant Professor, Department of Mathematics, University of North Carolina, Chapel Hill 2007 - 2012
NSF Postdoctoral Instructor / Charles B. Morrey Assistant Professor, Department of Mathematics, University of California, Berkeley 2006 - 2007
NSF Postdoctoral Fellow, Department of Mathematics, University of California, Berkeley 2005 - 2006
Visiting Postdoctoral Member, Mathematical Sciences Research Institute (MSRI) Fall 2005
VIGRE Visiting Assistant Professor, School of Mathematics, Georgia Institute of Technology 2003 - 2005

Honors.

Goodman-Petersen Award for Excellence in Teaching, Department of Mathematics, University of North Carolina 2022
Bowman and Gordon Gray Distinguished Term Professorship, University of North Carolina College of Arts & Sciences 2021-2026

<i>Faculty Award for Excellence in Doctoral Mentoring</i> , The Graduate School, University of North Carolina	2019
<i>Board of Governors' Award for Excellence in Teaching</i> , University of North Carolina	2018
<i>Sue Goodman Award for Excellence in Undergraduate Education</i> , inaugural award from the Department of Mathematics, University of North Carolina	2017
<i>Finalist for the nomination for the Board of Governors' Award for Excellence in Teaching</i> , University of North Carolina	2017
<i>"Of the Month" nomination</i> , National Residence Hall Honorary	2016, 2017
<i>AMS Sectional Meeting Invited Address</i>	2016
<i>W.N. Reynolds Senior Faculty Research and Scholarly Leave</i> , Competitive Leave, University of North Carolina	2015
<i>National Science Foundation Faculty Early Career Development Award (CAREER)</i>	2011
<i>National Science Foundation Mathematical Sciences Postdoctoral Research Fellowship</i>	2005
<i>Dean's Teaching Fellowship</i> , Krieger School of Arts and Sciences, Johns Hopkins University	2001
<i>William Kelso Morrill Award for Excellence in the Teaching of Mathematics</i> , Department of Mathematics, Johns Hopkins University	2000
<i>William Kelso Morrill Award for Excellence in the Teaching of Mathematics (Honorable Mention)</i> , Department of Mathematics, Johns Hopkins University	1999

Refereed Research Publications. ¹

- Jeremy Marzuola, Jason Metcalfe, and Daniel Tataru: *Quasilinear Schrödinger equations III: Large data and short time*. Arch. Ration. Mech. Anal. **242** (2021), 1119–1175.
- Kiril Datchev, Jason Metcalfe, Jacob Shapiro, and Mihai Tohaneanu: *On the interaction of metric trapping and a boundary*. Proc. Amer. Math. Soc. **149** (2021), 3801–3812.
- Jason Metcalfe, Jacob Sterbenz, and Daniel Tataru: *Local energy decay for scalar fields on time dependent non-trapping backgrounds*. Amer. J. Math. **142** (2020), 821–883.
- Jason Metcalfe and Katrina Morgan: *Global existence for systems of quasilinear wave equations in $(1 + 4)$ -dimensions*. J. Differential Equations **268** (2020), 2309–2331.
- Robert Booth, Hans Christianson, Jason Metcalfe, and Jacob Perry: *Localized energy for wave equations with degenerate trapping*. Math. Res. Lett. **26** (2019), 991–1025.
- Jason Metcalfe and David Spencer: *Global existence for a coupled wave system related to the Strauss conjecture*. Commun. Pure Appl. Anal. **17** (2018), 593–604.
- Jason Metcalfe and Chengbo Wang: *The Strauss conjecture on asymptotically flat space-times*. SIAM J. Math. Anal. **49** (2017), 4579–4594.
- Jason Metcalfe, Daniel Tataru, and Mihai Tohaneanu: *Pointwise decay for the Maxwell field on black hole space-times*. Adv. Math. **316** (2017), 53–93.
- Parul Laul, Jason Metcalfe, Shreyas Tikare, and Mihai Tohaneanu: *Localized energy estimates on Myers-Perry space-times*. SIAM J. Math. Anal. **47** (2015), 1933–1957.

¹As is standard in pure mathematics (and required for many of the journals below), the authors on all of the papers are listed alphabetically. The role of the authors is not indicated in the ordering, and all authors are assumed to have contributed equally.

- John Helms and Jason Metcalfe: *The lifespan for 3-dimensional quasilinear wave equations in exterior domains*. Forum Math. **26** (2014), 1883–1918.
- Hans Christianson and Jason Metcalfe: *Sharp local smoothing for manifolds with smooth inflection transmission*. Indiana Univ. Math. J. **63** (2014), 969–992.
- Hans Lindblad, Jason Metcalfe, Christopher D. Sogge, Mihai Tohaneanu, and Chengbo Wang: *The Strauss conjecture on Kerr black hole backgrounds*. Math. Ann. **359** (2014), 637–661.
- John Helms and Jason Metcalfe: *Almost global existence for 4-dimensional quasilinear wave equations in exterior domains*. Differential Integral Equations **27** (2014), 837–878.
- Jeremy Marzuola, Jason Metcalfe, and Daniel Tataru: *Quasilinear Schrödinger equations II: Small data and cubic nonlinearities*. Kyoto J. Math. **54** (2014), 529–546.
- Hans Christianson, Jeremy Marzuola, Jason Metcalfe, and Michael Taylor: *Nonlinear bound states on weakly homogeneous spaces*. Comm. Partial Differential Equations. **39** (2014), 34–97.
- Jeremy Marzuola, Jason Metcalfe, and Daniel Tataru: *Quasilinear Schrödinger equations I: Small data and quadratic interactions*. Adv. Math. **231** (2012), 1151–1172.
- Jason Metcalfe, Daniel Tataru, and Mihai Tohaneanu: *Price’s law on nonstationary spacetimes*. Adv. Math. **230** (2012), 995–1028.
- Jason Metcalfe and Michael Taylor: *Dispersive wave estimates on 3D hyperbolic space*. Proc. Amer. Math. Soc. **140** (2012), 3861–3866.
- Parul Maul and Jason Metcalfe: *Localized energy estimates for wave equations on high dimensional Schwarzschild space-times*. Proc. Amer. Math. Soc. **140** (2012), 3247–3262.
- Jason Metcalfe and Daniel Tataru: *Global parametrices and dispersive estimates for variable coefficient wave equations*. Math. Ann. **353** (2012), 1183–1237.
- Jason Metcalfe and Jacob Perry: *Global solutions to quasilinear wave equations in homogeneous waveguides with Neumann boundary conditions*. Commun. Pure Appl. Anal. **11** (2012), 547–556.
- Jason Metcalfe and Michael Taylor: *Nonlinear waves on 3D hyperbolic space*. Trans. Amer. Math. Soc. **363** (2011), 3489–3529.
- Jason Metcalfe and Christopher D. Sogge: *Global existence for high dimensional quasilinear wave equations exterior to star-shaped obstacles*. Discrete Contin. Dyn. Sys. **28** (2010), 1589–1601.
- Kunio Hidano, Jason Metcalfe, Hart F. Smith, Christopher D. Sogge, and Yi Zhou: *On abstract Strichartz estimates and the Strauss conjecture for nontrapping obstacles*. Trans. Amer. Math. Soc. **362** (2010), 2789–2809.
- Jeremy Marzuola, Jason Metcalfe, Daniel Tataru, and Mihai Tohaneanu: *Strichartz estimates on Schwarzschild black hole backgrounds*. Comm. Math. Phys. **293** (2010), 37–83.
- Jeremy Marzuola, Jason Metcalfe, and Daniel Tataru: *Strichartz estimates and local smoothing estimates for asymptotically flat Schrödinger equations*. J. Funct. Anal. **255** (2008), 1497–1553.
- Yi Du, Jason Metcalfe, Christopher D. Sogge, and Yi Zhou: *Concerning the Strauss conjecture and almost global existence for nonlinear Dirichlet-wave equations in 4-dimensions*. Comm. Partial Differential Equations **33** (2008), 1487–1506.
- Jeremy Marzuola, Jason Metcalfe, and Daniel Tataru: *Wave packet parametrices for evolutions governed by PDO’s with rough symbols*. Proc. Amer. Math. Soc. **136** (2008), 597–604.
- Jason Metcalfe and Ann Stewart: *Almost global existence for quasilinear wave equations in waveguides with Neumann boundary conditions*. Trans. Amer. Math. Soc. **360** (2008), 171–188.
- Jason Metcalfe and Becca Thomases: *Elastic waves in exterior domains, Part II: Global existence with a null structure*. Int. Math. Res. Not. **2007**, 1–43.

- Jason Metcalfe and Christopher D. Sogge: *Global existence of null-form wave equations in exterior domains*. Math. Z. **256** (2007), 521–549.
- Jason Metcalfe and Makoto Nakamura: *General quasilinear wave equations with localized dissipation in exterior domains*. J. Differential Equations **233** (2007), 313–344.
- Michael Lacey and Jason Metcalfe: *Paraproducts in one and several parameters*. Forum Math. **19** (2007), 325–351.
- Jason Metcalfe and Christopher D. Sogge: *Global existence for Dirichlet-wave equations with quadratic nonlinearities in high dimensions*. Math. Ann. **336** (2006), 391–420.
- Jason Metcalfe: *Elastic waves in exterior domains, Part I: Almost global existence*. Int. Math. Res. Not. **2006**, 1–41.
- Jason Metcalfe and Christopher D. Sogge: *Long time existence of quasilinear wave equations exterior to star-shaped obstacles via energy methods*. SIAM J. Math. Anal. **38** (2006), 188–209.
- Jason Metcalfe, Makoto Nakamura, and Christopher D. Sogge: *Global existence of quasilinear, nonrelativistic wave equations satisfying the null condition*. Japan. J. Math. **31** (2005), 391–472.
- Jason Metcalfe, Christopher D. Sogge, and Ann Stewart: *Nonlinear hyperbolic equations in infinite homogeneous waveguides*. Comm. Partial Differential Equations **30** (2005), 643–661.
- Jason Metcalfe, Makoto Nakamura, and Christopher D. Sogge: *Global existence of solutions to multiple speed systems of quasilinear wave equations in exterior domains*. Forum Math. **17** (2005), 133–168.
- Jason Metcalfe and Christopher D. Sogge: *Hyperbolic trapped rays and global existence of quasilinear wave equations*. Invent. Math. **159** (2005), 75–117.
- Jason Metcalfe: *Global existence for semilinear wave equations exterior to nontrapping obstacles*. Houston J. Math. **30** (2004), 259–281.
- Jason Metcalfe: *Global Strichartz estimates for solutions to the wave equation exterior to a convex obstacle*. Trans. Amer. Math. Soc. **356** (2004), 4839–4855.

Submitted (to Peer Reviewed Journals) Research Publications.

- Jason Metcalfe and Taylor Rhoads: *Long-time existence for systems of quasilinear wave equations*. Submitted, 2022. (ArXiv: 2203.08599)
- Jason Metcalfe and Alexander Stewart: *On a system of weakly null semilinear wave equations*. Submitted, 2022. (ArXiv:2204.06665)
- Kellan Hepditch and Jason Metcalfe: *A local energy estimates for 2-dimensional Dirichlet wave equations*. Submitted, 2022.
- Michael Facci and Jason Metcalfe: *Global existence for quasilinear wave equations satisfying the null condition*. Submitted, 2021.
- Michael Facci, Alex Mcentarrfer, and Jason Metcalfe: *A r^p -weighted local energy approach to global existence for null form semilinear wave equations*. Submitted, 2021.

Research Articles - Unrefereed.

- Jason Metcalfe and Daniel Tataru: *Decay estimates for variable coefficient wave equations in exterior domains*. Advances in Phase Space Analysis of Partial Differential Equations, In Honor of Ferruccio Colombini's 60th Birthday. Progress in Nonlinear Differential Equations and Their Applications, Vol. 78, 2009. p. 201–217.

Jason Metcalfe: *Global Strichartz estimates for solutions to the wave equation exterior to a convex obstacle*. Ph.D. thesis, Johns Hopkins University, 2003, 37 pages.

Extended Abstracts.

Jason Metcalfe: *Local energy decay for the wave equation*. Notices Amer. Math. Soc. **63** (2016), 1158–1159.

Jason Metcalfe: *Low regularity local well-posedness for quasilinear Schrödinger equations*. Oberwolfach Reports **41** (2013), 2352–2354.

Jason Metcalfe: *Long time existence for nonlinear wave equations in exterior domains*. Oberwolfach Reports **41** (2010), 59–62.

Jason Metcalfe: *Strichartz estimates on Schwarzschild space-times*. Oberwolfach Reports **44** (2007), 8–11.

Talks.

<i>Bielefeld Analysis Seminar</i> , Department of Mathematics, Bielefeld University (virtual)	December 2021
<i>Analysis and PDE Seminar</i> , Department of Mathematics, University of North Carolina	November 2021
<i>Graduate Mathematical Association Seminar</i> , Department of Mathematics, University of North Carolina	November 2021
<i>Analysis Seminar</i> , Department of Mathematics, Northwestern University (virtual)	June 2021
<i>Student PDE Seminar</i> , Department of Mathematics, University of Kentucky (virtual)	May 2021
<i>Mathematical Physics and Harmonic Analysis Seminar</i> , Department of Mathematics, Texas A&M University (virtual)	April 2021
<i>Ohio River Analysis Meeting, Invited Address</i> , Lexington, KY (virtual)	March 2021
<i>Partial Differential Equations Seminar</i> , Department of Mathematics, Vanderbilt University (virtual)	February 2021
<i>Dynamics in Geometric Dispersive Equations and the Effects of Trapping, Scattering and Weak Turbulence</i> , Banff International Research Station, Banff, Canada	February 2020
<i>AMS 2019 Fall Central Sectional Meeting: Special Session on Nonlinear Dispersive Equations and Water Waves</i> , Madison, WI	September 2019
<i>Partial Differential Equations Seminar</i> , Institute of Applied Physics and Computational Mathematics, Beijing, China	June 2019
<i>International Workshop on the Bourgain-Demeter Decoupling Method</i> , Chern Institute of Mathematics, Nankai University, Tianjin, China	June 2019
<i>Partial Differential Equations Seminar</i> , Department of Mathematics, Zhejiang University, Hangzhou, China	May 2019
<i>Carolina Math Club seminar</i> , University of North Carolina, Chapel Hill, NC	March 2019
<i>Joint Mathematics Meetings: AMS Special Session on Analysis and Geometry of Nonlinear Evolution Equations</i> , Baltimore, MD	January 2019
<i>Spectral and Scattering Theory Seminar</i> , Purdue University, Department of Mathematics	February 2018
<i>Analysis Seminar</i> , University of California - San Diego, Department of Mathematics	March 2017

<i>AMS 2017 Spring Southeastern Sectional Meeting: Special Session on Advances in long-term behavior of nonlinear dispersive equations</i> , Charleston, SC	March 2017
<i>AMS 2016 Fall Southeastern Section Meeting, Invited Address</i> , Raleigh, NC	November 2016
<i>International Conference on Evolution Equations: in conjunction with the 31st annual Shanks Lecture. Special Session on Nonlinear waves</i> . Vanderbilt University, Nashville, TN	May 2016
<i>Singularity formation and long-time behavior in dispersive PDEs</i> , Mathematical Institute, University of Bonn, Bonn, Germany	March 2016
<i>Analysis and PDE Seminar</i> , University of Kentucky, Department of Mathematics	December 2015
<i>Differential Equations Seminar</i> , North Carolina State University, Department of Mathematics	November 2015
<i>Analysis and PDE Seminar</i> , University of North Carolina, Department of Mathematics	September 2015
<i>Focus Week: Nonlinear wave equations and their numerical study</i> , Focus Program on 100 Years of General Relativity, Fields Institute, Toronto, Canada	June 2015
<i>Nonlinear Analysis Seminar</i> , Rutgers University, Department of Mathematics	April 2015
<i>AMS 2015 Spring Central Sectional Meeting: Special Session on Harmonic Analysis and Applications</i> , East Lansing, MI	March 2015
<i>AMS 2014 Fall Western Sectional Meeting: Special Session on Hamiltonian Partial Differential Equations I</i> , San Francisco, CA	October 2014
<i>Partial Differential Equations Graduate Seminar</i> , Department of Mathematics, Zhejiang University, Hangzhou, China	June 2014
<i>Partial Differential Equations Seminar</i> , Department of Mathematics, Zhejiang University, Hangzhou, China	May 2014
<i>Dynamics of Geometric Dispersive Equations and the Effects of Trapping, Scattering and Weak Turbulence</i> , Banff International Research Station, Banff, Canada	May 2014
<i>AMS 2014 Spring Southeastern Sectional Meeting: Special Session on Completely Integrable Systems and Dispersive Nonlinear Equations</i> , Knoxville, TN	March 2014
<i>Applied Math and PDE Seminar</i> , University of Sydney, Australia, School of Mathematics and Statistics	March 2014
<i>Nonlinear Waves and Dispersive Equations</i> , Mathematisches Forschungsinstitut Oberwolfach, Germany	August 2013
<i>The Eighth IMACS International Conference on Nonlinear Evolution Equations and Wave Phenomena: Computation and Theory. Special Session on Quasilinear and Dispersive Partial Differential Equations</i> , Athens, GA	March 2013
<i>Differential Equations Seminar</i> , University of Michigan, Department of Mathematics	March 2013
<i>Analysis Seminar</i> , Binghamton University, Department of Mathematical Sciences	November 2012
<i>Analysis/PDE Seminar</i> , University of North Carolina, Department of Mathematics	October 2012
<i>AMS 2012 Spring Eastern Section Meeting: Special Session on Nonlinear Dispersive Equations</i> , Washington, DC	March 2012
<i>SIAM Conference on Analysis of Partial Differential Equations: Session on Recent Progress on Dispersive Partial Differential Equations</i> , San Diego, CA	November 2011
<i>Colloquium</i> , University of New Mexico, Department of Mathematics	November 2011
<i>Geometric Analysis and Partial Differential Equations Seminar</i> , University of Cambridge, England	October 2011

- Analysis/PDE Seminar*, University of North Carolina, Department of Mathematics
August 2011
- The 7th International Congress on Industrial and Applied Mathematics: Special Session on Dispersive Equations in Mathematical Physics*, Vancouver, BC, Canada
July 2011
- Analysis/PDE Summer Seminar* (4 lectures), University of North Carolina, Department of Mathematics
June-July 2011
- Hangzhou Conference on Harmonic Analysis and PDEs*, Zhejiang University, Hangzhou, China.
June 2011
- JAMI Conference 2011, Analysis of PDEs*, Johns Hopkins University.
March 2011
- AMS 2011 Spring Southern Section Meeting: Special Session on Harmonic Analysis and Partial Differential Equations*, Statesboro, GA
March 2011
- Nonlinear Waves and Dispersive Equations*, Mathematisches Forschungsinstitut Oberwolfach, Germany
September 2010
- SIAM Conference on Nonlinear Waves and Coherent Structures: Special Session on Modulation of Nonlinear Solutions in Dispersive Partial Differential Equations*, Philadelphia, PA
August 2010
- Ondes nonlinéaires et dispersion*, Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France
June 2010
- Beijing Conference in Harmonic Analysis and Partial Differential Equations*, Institute of Applied Physics and Computational Mathematics, Beijing, China
May 2010
- Partial Differential Equations Seminar*, Institute of Applied Physics and Computational Mathematics, Beijing, China
May 2010
- AMS 2010 Spring Western Section Meeting: Special Session on Harmonic Analysis and Partial Differential Equations*, Albuquerque, NM
April 2010
- PDE/Analysis Seminar*, Massachusetts Institute of Technology, Department of Mathematics
April 2010
- PDE Seminar*, Fudan University, Department of Mathematics, Shanghai, China
January 2010
- Analysis/PDE Seminar*, University of North Carolina, Department of Mathematics
December 2009
- Analysis and PDE Seminar*, Johns Hopkins University, Department of Mathematics
November 2009
- Spectral and Scattering Theory Seminar*, Purdue University, Department of Mathematics
November 2009
- AMS 2009 Fall Southeastern Section Meeting: Special Session on General Relativity and Related Partial Differential Equations*, Boca Raton, FL
October 2009
- GMA Visions Seminar* (with J. Hawkins on academic job searches), University of North Carolina, Department of Mathematics
October 2009
- Partial Differential Equations Seminar*, Mathematisches Institut, Universität Bonn, Bonn, Germany
July 2009
- AMS 2009 Spring Western Section Meeting: Special Session on Nonlinear Partial Differential Equations*, San Francisco, CA
April 2009
- AMS 2009 Spring Western Section Meeting: Special Session on Nonlinear Dispersive Equations*, San Francisco, CA
April 2009
- Calderón-Zygmund Analysis Seminar*, University of Chicago, Department of Mathematics
March 2009

<i>GMA Visions Seminar</i> (with J. Hawkins on academic job searches), University of North Carolina, Department of Mathematics	October 2008
<i>Applied Math/Analysis Seminar</i> , Duke University, Department of Mathematics	September 2008
<i>Analysis/PDE Summer Seminar</i> (4 lectures), University of North Carolina, Department of Mathematics	July 2008
<i>Differential Equations Seminar</i> , North Carolina State University, Department of Mathematics	April 2008
<i>Analysis and PDE Seminar</i> , Johns Hopkins University, Department of Mathematics	March 2008
<i>Analysis/PDE Seminar</i> , University of North Carolina, Department of Mathematics	December 2007
<i>PDE Seminar</i> , University of California, Davis, Department of Mathematics	November 2007
<i>GMA Visions Seminar</i> , University of North Carolina, Department of Mathematics	October 2007
<i>Nonlinear Waves and Dispersive Equations</i> , Mathematisches Forschungsinstitut Oberwolfach, Germany	September 2007
<i>Summer Microprogram on Nonlinear Partial Differential Equations</i> , Mathematical Sciences Research Institute	August 2007
<i>VII Joint Meetings of AMS-SMM: Mathematical Physics Special Session</i> , Zacatecas, Mexico	May 2007
<i>JAMI Conference: Nonlinear Dispersive Equations</i> , Johns Hopkins University	March 2007
<i>Analysis Seminar</i> , McGill University (Montreal, Canada), Department of Mathematics	January 2007
<i>PDE/Analysis Seminar</i> , University of California, Berkeley, Department of Mathematics	December 2006
<i>Mathematical Physics and Probability Seminar</i> , University of California, Davis, Department of Mathematics	November 2006
<i>Applied Mathematics Seminar</i> , Tohoku University (Sendai, Japan), Department of Mathematics	June 2006
<i>The 4th COE Symposium, Exploring New Science by Bridging the Particle-Matter Hierarchy</i> , Sendai, Japan	June 2006
<i>Special Seminar</i> , University of North Carolina at Chapel Hill, Department of Mathematics	February 2006
<i>Colloquium</i> , Virginia Tech, Department of Mathematics	February 2006
<i>Candidate Talk</i> , University of Rochester, Department of Mathematics	January 2006
<i>Geometric and Analytical Aspects of Nonlinear Dispersive Equations</i> , Mathematical Sciences Research Institute	December 2005
<i>Postdoc Seminar</i> , Mathematical Sciences Research Institute	September 2005
<i>FRG: Eigenfunctions of the Laplacian - Workshop I</i> , University of Washington	July 2005
<i>Research Horizons Seminar</i> , Georgia Institute of Technology, School of Mathematics	April 2005
<i>Analysis Seminar</i> , Georgia Institute of Technology, School of Mathematics	November 2004
<i>Analysis Seminar</i> , Princeton University, Department of Mathematics	November 2004
<i>NLW-HYKE: Summer School and Workshop on Nonlinear Wave Equations</i> , Erwin Schrödinger Institute, Vienna, Austria	July 2004
<i>Analysis Seminar</i> , University of California, Los Angeles, Department of Mathematics	October 2003

<i>CDSNS Seminar</i> , Georgia Institute of Technology, School of Mathematics	October 2003
<i>Analysis Seminar</i> , Johns Hopkins University, Department of Mathematics	March 2003
<i>Research Seminar</i> , Xavier University, Department of Mathematics and Computer Science	February 2003
<i>Undergraduate Seminar</i> , Xavier University, Department of Mathematics and Computer Science	February 2003
<i>Research Seminar</i> , Grand Valley State University, Department of Mathematics	January 2003
<i>Analysis Seminar</i> , Johns Hopkins University, Department of Mathematics	September 2002

Teaching.

<i>Math 521, Advanced Calculus I, Section 002 (35 students)</i> , University of North Carolina	Spring 2022
<i>Math 521, Advanced Calculus I, Section 004 (32 students)</i> , University of North Carolina	Spring 2022
<i>Math 891, Special Topics: Nonlinear Wave Equations (8 students)</i> , University of North Carolina	Spring 2022
<i>Math 296, Directed Exploration (1 student)</i> , University of North Carolina	Spring 2022
<i>Math 692H, Honors Thesis in Mathematics (1 student)</i> , University of North Carolina	Spring 2022
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Spring 2022
<i>Math 296, Directed Exploration (2 students)</i> , University of North Carolina	Fall 2021
<i>Math 691H, Honors Research in Mathematics (1 student)</i> , University of North Carolina	Fall 2021
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Fall 2021
<i>Math 521, Advanced Calculus I (40 students)</i> , University of North Carolina	Spring 2021
<i>Math 290, Topics in Mathematics (3 students)</i> , University of North Carolina	Spring 2021
<i>Math 296, Directed Exploration (1 student)</i> , University of North Carolina	Spring 2021
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Spring 2021
<i>Math 231, Calculus of Functions of One Variable I (148 students)</i> , University of North Carolina	Fall 2020
<i>Math 653, Introductory Analysis (22 students)</i> , University of North Carolina	Fall 2020
<i>Math 296, Directed Exploration (3 students)</i> , University of North Carolina	Fall 2020
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Fall 2020
<i>Math 590, Topics in Analysis: Geometry and Relativity (50 students)</i> , University of North Carolina	Spring 2020
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Spring 2020
<i>Math 521, Advanced Calculus I (40 students)</i> , University of North Carolina	Fall 2019
<i>Math 233H, Calculus of Functions of Several Variables (Honors) (20 students)</i> , University of North Carolina	Fall 2019
<i>Math 296, Directed Exploration (1 student)</i> , University of North Carolina	Fall 2019
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Fall 2019
<i>Math 521, Advanced Calculus I (38 students)</i> , University of North Carolina	Spring 2019

<i>Math 692H, Honors Research in Mathematics (1 student)</i> , University of North Carolina	Spring 2019
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Spring 2019
<i>Math 521H, Advanced Calculus I (Honors) (20 students)</i> , University of North Carolina	Fall 2018
<i>Math 653, Introductory Analysis (15 students)</i> , University of North Carolina	Fall 2018
<i>Math 691H, Honors Research in Mathematics (1 student)</i> , University of North Carolina	Fall 2018
<i>Math 920, Seminar and Directed Reading (2 students)</i> , University of North Carolina	Fall 2018
<i>Math 994, Doctoral Dissertation (1 student)</i> , University of North Carolina	Fall 2018
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Spring 2018
<i>Math 296, Directed Exploration (1 student)</i> , University of North Carolina	Spring 2018
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Fall 2017
<i>Math 653, Introductory Analysis (25 students)</i> , University of North Carolina ²	Fall 2017
<i>Math 521, Advanced Calculus I (42 students)</i> , University of North Carolina ²	Fall 2017
<i>Math 891, Topics in Analysis: Global existence for the energy critical wave equation (10 students)</i> , University of North Carolina	Spring 2017
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Spring 2017
<i>Math 692H, Honors Research in Mathematics (1 student)</i> , University of North Carolina	Spring 2017
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Fall 2016
<i>Math 296, Directed Exploration (2 student)</i> , University of North Carolina	Fall 2016
<i>Math 691H, Honors Research in Mathematics (1 student)</i> , University of North Carolina	Fall 2016
<i>Math 383, First Course in Differential Equations (2 sections, 56 and 41 students respectively)</i> , University of North Carolina	Fall 2016
<i>Math 994, Doctoral Dissertation (3 students)</i> , University of North Carolina	Spring 2016
<i>Math 290, Directed Exploration (1 student)</i> , University of North Carolina	Spring 2016
<i>Math 521, Advanced Calculus I (33 students)</i> , University of North Carolina	Spring 2016
<i>Math 381, Discrete Mathematics (39 students)</i> , University of North Carolina	Spring 2016
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Fall 2015
<i>Math 290, Directed Exploration (1 student)</i> , University of North Carolina	Fall 2015
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Spring 2015
<i>Math 521, Advanced Calculus I (22 students)</i> , University of North Carolina	Spring 2015
<i>Math 653, Introductory Analysis (16 students)</i> , University of North Carolina	Fall 2014
<i>Math 521, Advanced Calculus I (27 students)</i> , University of North Carolina	Spring 2014
<i>Math 690, Topics in Mathematics (1 student)</i> , University of North Carolina	Spring 2014
<i>Math 590, Topics in Analysis: Geometry and Relativity (9 students)</i> , University of North Carolina	Fall 2013
<i>Math 690, Topics in Mathematics (1 student)</i> , University of North Carolina	Fall 2013

²Extended portions of these courses were taught by colleagues due to a medical absence.

<i>Math 89, FYS: Discrete Fourier and wavelet analysis (1 student)</i> , University of North Carolina	Spring 2013
<i>Math 592, Topics in Geometry (1 student)</i> , University of North Carolina	Spring 2013
<i>Math 699, Topics in Mathematics (1 student)</i> , University of North Carolina	Spring 2013
<i>Math 521, Advanced Calculus I (25 students)</i> , University of North Carolina	Fall 2012
<i>Math 920, Seminar and Directed Reading (1 student)</i> , University of North Carolina	Fall 2012
<i>Math 296, Reading Research (1 student)</i> , University of North Carolina	Fall 2012
<i>Math 232, Calculus of Functions of One Variable II (32 students)</i> , University of North Carolina	Spring 2012
<i>Math 656, Complex Analysis (13 students)</i> , University of North Carolina	Spring 2012
<i>Math 994, Doctoral Dissertation (1 student)</i> , University of North Carolina	Spring 2012
<i>Math 994, Doctoral Dissertation (1 student)</i> , University of North Carolina	Fall 2011
<i>Math 656, Complex Analysis (5 students)</i> , University of North Carolina	Spring 2011
<i>Math 383H, Linear Algebra and Differential Equations (Honors) (12 students)</i> , University of North Carolina	Spring 2011
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Spring 2011
<i>Math 920, Seminar and Directed Reading (8+ students)</i> , University of North Carolina	Spring 2011
<i>Math 992, Master's Project (2 students)</i> , University of North Carolina	Spring 2011
<i>Math 381, Discrete Mathematics</i> , University of North Carolina	Fall 2010
<i>Math 994, Doctoral Dissertation (2 students)</i> , University of North Carolina	Fall 2010
<i>Math 920, Seminar and Directed Reading (2 students)</i> , University of North Carolina	Fall 2010
<i>Math 992, Master's Project (1 student)</i> , University of North Carolina	Fall 2010
<i>Math 521, Advanced Calculus I</i> , University of North Carolina	Spring 2010
<i>Math 994, Doctoral Dissertation (1 student)</i> , University of North Carolina	Spring 2010
<i>Math 920, Seminar and Directed Reading (2 students)</i> , University of North Carolina	Spring 2010
<i>Math 296, Reading Research (1 student)</i> , University of North Carolina	Spring 2010
<i>Math 653, Introductory Analysis</i> , University of North Carolina	Fall 2009
<i>Math 232, Calculus of Functions of One Variable II</i> , University of North Carolina	Fall 2009
<i>Math 994, Doctoral Dissertation (1 student)</i> , University of North Carolina	Fall 2009
<i>Math 920, Seminar and Directed Reading (1 student)</i> , University of North Carolina	Fall 2009
<i>Math 290, Directed Exploration (1 student)</i> , University of North Carolina	Fall 2009
<i>Math 891, Topics in Analysis (Quasilinear Wave Equations)</i> , University of North Carolina	Spring 2009
<i>Math 920, Seminar and Directed Reading (2 students)</i> , University of North Carolina	Spring 2009
<i>Math 524, Elementary Differential Equations</i> , University of North Carolina	Fall 2008
<i>Math 920, Seminar and Directed Reading (1 student)</i> , University of North Carolina	Fall 2008

<i>Math 383H, Linear Algebra and Differential Equations (Honors)</i> , University of North Carolina	Spring 2008
<i>Math 920, Seminar and Directed Reading (Harmonic Analysis) (1 student)</i> , University of North Carolina	Spring 2008
<i>Math 751, Introduction to Partial Differential Equations</i> , University of North Carolina	Fall 2007
<i>Math 121B, Mathematical Tools for the Physical Sciences</i> , University of California, Berkeley	Spring 2007
<i>Math 199, General Relativity (Reading course)</i> , University of California, Berkeley	Spring 2007
<i>Math 185, Introduction to Complex Analysis</i> , University of California, Berkeley	Fall 2006
<i>Math 3770, Statistics and Applications</i> , Georgia Institute of Technology	Spring 2005
<i>Math 4581, Classical Mathematical Methods in Engineering</i> , Georgia Institute of Technology	Fall 2004
<i>Math 4581, Classical Mathematical Methods in Engineering</i> , Georgia Institute of Technology	Spring 2004
<i>Math 2403, Differential Equations</i> , Georgia Institute of Technology	Fall 2003
<i>110.302, Differential Equations with Applications</i> , Johns Hopkins University	Summer 2003
<i>110.105, Introduction to Calculus</i> , Johns Hopkins University	Fall 2002
<i>110.302, Differential Equations with Applications</i> , Johns Hopkins University	Summer 2002
<i>110.312, Introduction to Wavelets</i> , Dean's Teaching Fellowship Course, Johns Hopkins University	Fall 2001
<i>110.302, Differential Equations with Applications</i> , Johns Hopkins University	Summer 2001
<i>110.109, Calculus II for Physical Sciences and Engineers</i> , Johns Hopkins University	Summer 2000

Research Supervision.

Doctoral Dissertation Advising:

Taylor Rhoads, <i>Almost global existence for systems of nonlinear wave equations in three spatial dimensions</i>	2022
Collin Kofroth, <i>Local energy decay for damped waves on stationary asymptotically flat space-times</i>	2022
Katrina Morgan, <i>Wave decay in the asymptotically flat setting</i>	2019
Robert Booth, <i>An investigation of non-trapping, asymptotically Euclidean wave equations</i>	2018
Jacob Perry, <i>Localized energy estimates for wave equations exterior to non-star-shaped obstacles</i>	2018
John Helms, <i>The sharp lifespan for quasilinear wave equations in exterior domains with polynomial local energy decay.</i>	2012
Parul Laul, <i>Localized energy estimates of the wave equation on higher dimensional hyperspherical Schwarzschild spacetimes.</i>	2011

Masters Project Advising:

Anna Geyer, <i>Localized energy estimates for solutions to the wave equation in Minkowski, Schwarzschild, and Reissner-Nördstrom space-times.</i>	2011
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- Robert Booth, *Energy estimates on asymptotically flat surfaces of revolution*. 2011
- Undergraduate Honors Thesis Advising.*
- Alexander Stewart, *Global existence for a system of weakly null semilinear equations* 2022
- Difan Li, *Local energy estimates for wave equations with degenerate trapping* 2019
- David Spencer, *Global existence for a coupled wave system related to the Strauss conjecture*. Highest honors. 2017
- Shreyas Tikare, *Localized energy estimates for wave equations on higher dimensional black holes*. Highest honors. 2014
- Bryan Lloyd, *A localized energy estimate exterior to a class of almost star-shaped obstacles*. 2013
- Jacob Perry, *Solutions to quasilinear wave equations in homogeneous waveguides with Neumann boundary conditions*. 2010
- Faculty Research Advisor for Summer Undergraduate Research Fellowships (SURF):* David Spencer (2016), Shreyas Tikare (2013)
- Other Undergraduate Research Students.*
- Kenan Hasanaliyev (high school student, unpaid intern), Michael Facci, Alexander Mangiapane, Samuel Moore, Alex McEntarrfer, Simon Bertron, B. Pierce Hayes, Kerian Celeste
- Current Research Students.*
- Benjamin Bechtold (graduate student), Xiao-Ming Porter (undergraduate student), Elisa Ma (undergraduate student), Zubin Narayan (high school student, unpaid intern)

Grants.

- NSF Research Training Group grant DMS-2135998*. “RTG: Partial differential equations on manifolds”, Lead PI (co-PIs Y. Canzani, H. Christianson, and J. Marzuola) (\$2,416,637) 2022-2027
- NSF grant DMS-2054910*. “Dispersive and wave equations in the presence of background geometry”, PI (\$280,270) 2021-2024
- Simons Foundation Collaboration Grant Award: 711724*. “Dispersive partial differential equations with background geometry”, PI (\$42,000) 2020-2025 ³
- NSF grant DMS-1501020 (Conference grant)*. “UNC PDE mini-schools”, Co-PI with PI H. Christianson (\$49,000) 2015-2018
- NSF CAREER grant DMS-1054289*. “CAREER: The wave equation on black hole backgrounds”, PI (\$410,853) 2011-2018
- W.N. Reynolds Senior Faculty Research and Scholarly Leave*, Competitive Leave, University of North Carolina 2015
- NSF grant DMS-0800678*. “Studies on dispersive and wave equations”, PI (\$110,557) 2008-2012
- Junior Faculty Development Award (IBM Fund Award)*, University of North Carolina (\$7500) 2008

³Surrendered in 2021 due to NSF DMS-2054910

<i>NSF Mathematical Sciences Postdoctoral Research Fellowship DMS-0502854.</i>	2005-2007
Sponsoring scientist: Daniel Tataru. PI (\$108,000)	
<i>Dean's Teaching Fellowship, Krieger School of Arts and Sciences, Johns Hopkins University</i>	2001

Memberships and Service.

Administrative positions

<i>Associate Chair, Department of Mathematics, University of North Carolina</i>	2012-2015
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DEI and Related Trainings

<i>Mental Health First Aider, National Council for Mental Wellbeing</i>	2021-present
<i>Equity in Teaching Institute Fellow, University of North Carolina</i>	2019-2020
<i>Safe Zone Ally, UNC LGBTQ Center, University of North Carolina</i>	2018-present
<i>Carolina Firsts Advocate, Office of Undergraduate Retention, University of North Carolina</i>	2018-present

College and University Level Service

<i>General Education Oversight Committee (elected), Division of Natural Sciences and Mathematics, University of North Carolina</i>	2021-2024
<i>Faculty Council (elected), Division of Natural Sciences and Mathematics, tenured, University of North Carolina</i>	2020-2023
<i>Reviewer for the selection of the Zachary Smith Distinguished Term Professorship and the 1989 Distinguished Teaching Professorship in Honor of William C. Friday, University of North Carolina</i>	2021-2022
<i>Bowman and Gordon Gray Distinguished Professorship Selection Committee, University of North Carolina</i>	2021-2022 (chair)
<i>University Teaching Awards Committee, Subcommittee for the Board of Governors' Award for Excellence in Teaching, University of North Carolina</i>	2018-2020, 2020-2022 (chair)
<i>2021 Doctoral Hooding Ceremony Speaker Selection Panel, Graduate School, University of North Carolina</i>	2020
<i>Data Science Initiative Committee, Undergraduate Committee, Advisory Member, University of North Carolina</i>	2019
<i>Internal Review Panel for the Packard Fellowship, University of North Carolina</i>	2019

Funding Agency Service

<i>Reviewer for FONDECYT Regular grant competition, an initiative of the Chilean National Science and Technology Commission</i>	2017
<i>National Science Foundation panelist</i>	2012, 2013 (2), 2015, 2016

Departmental Service

<i>Instructional budget committee, Department of Mathematics, University of North Carolina</i>	2020-2021
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<i>Promotion and reappointment committee</i> , Department of Mathematics, University of North Carolina	2018, 2020, 2020 (chair)
<i>Chair of the Tenure Track Assistant Professor Mentoring Committee</i> , Department of Mathematics, University of North Carolina	2019-2020
<i>Faculty Advisor for AMS Graduate Student Chapter</i> , University of North Carolina	2016-2020
<i>Linker committee (for selection of a graduate teaching award)</i> , Department of Mathematics, University of North Carolina	2012, 2019, 2020
<i>First Year Graduate Advisor</i> , University of North Carolina	2009-2016, 2018-2022
<i>Undergraduate Advisor</i> , University of North Carolina	2009-2011, 2012-2017, 2018-2019
<i>Analysis Comprehensive Exam Committee</i> , University of North Carolina	2009-2011, 2012-2013 (chair), 2018-2019
<i>Hiring committee (teaching assistant professor)</i> , Department of Mathematics, University of North Carolina	2018-2019
<i>Sub-committee for Advising Policies</i> , Department of Mathematics, University of North Carolina	2018
<i>Chair's advisory committee (elected)</i> , Department of Mathematics, University of North Carolina	2010-2012, 2015-2018
<i>Hiring committee (tenure track)</i> , Department of Mathematics, University of North Carolina	2013-2014, 2015-2016, 2017-2018, 2021-2022 (chair)
<i>Chair of the postdoctoral hiring committee</i> , Department of Mathematics, University of North Carolina	2017, 2018
<i>Strategic planning committee</i> , Department of Mathematics, University of North Carolina	2016-2017
<i>Undergraduate Committee</i> , University of North Carolina	2009-2011, 2014
<i>Graduate Committee</i> , University of North Carolina	2011-2012
<i>Departmental Undergraduate Honors Advisor</i> , University of North Carolina	2009-2011
<i>Pi Mu Epsilon Advisor</i> , University of North Carolina	2011
<i>Carolina Corollaries, Departmental Newsletter</i> , Faculty Contact (with D. Arinkin)	2009-2010
<i>Math Club / Math Competition Team / Problem Solving Seminar Organizer</i> , University of North Carolina	2009-2010
<i>Departmental representative to: Science and Technology Excellence Program, ADVANCE</i> , University of Michigan, Ann Arbor, MI	May 2009
<i>Steering Committee</i> , Johns Hopkins University, Department of Mathematics	2002-03

Conference Organization

<i>SIAM Conference on Nonlinear Waves and Coherent Structures (Anaheim, CA)</i> , Co-organizer with M. Johnson (co-chair), T. Kapitula (co-chair), A. Barreiro, A. Bertozzi, G. Derks, R. Horne, C. K. R. T. Jones, H. Kalisch, B. Seibold, T. Trogdon, and V. Vicol.	June 2018
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<i>UNC PDE Mini-Schools Organizer</i> , University of North Carolina. Co-founder and co-organizer with H. Christianson and J. Marzuola.	2013-2018
<i>AMS Special Session on Harmonic Analysis and Dispersive PDE, AMS Sectional Meeting, Raleigh, NC</i> , Co-organizer with R. Booth and K. Morgan	November 2016
<i>Analysis/PDE Seminar Organizer</i> , University of North Carolina. Since 2011, co-organized with H. Christianson and J. Marzuola.	2007-2010, 2011-2016
<i>AMS Special Session on Applications of Microlocal Analysis: Eigenfunctions and Dispersive PDE, AMS Sectional Meeting, Fargo, ND</i> , Co-organizer with H. Christianson.	April 2016
<i>Group Actions in Riemannian Geometry: A Conference in Honor of Patrick Eberlein</i> . Co-organizer with R. Decoste, K. Grove, M. Jablonski, M. Mast, T. Payne, R. Spatzier, and M. Williams.	May 2014
<i>AMS Special Session on Harmonic Analysis and Dispersive Equations, AMS Sectional Meeting, Albuquerque, NM</i> , Co-organizer with M. Blair.	April 2014
<i>Analysis/PDE Summer Graduate Seminar Organizer</i> , University of North Carolina	2008, 2011, 2012
<i>ICIAM 2011 Special Session on Dispersive Equations in Mathematical Physics</i> , Co-organizer with J. Marzuola, S. Gustafson, I. Zwiers, and T. Tsai	July 2011
<i>Carolina Meeting on Harmonic Analysis and PDE</i> , Co-organizer with J. Cima	January 2009
<i>Seminar Organizer</i> , MSRI, Nonlinear Dispersive Equations	Fall 2005
<i>AMS-SIAM Special Session on Analysis and Applications to PDE, Joint Mathematics Meetings, Atlanta, GA</i> , Co-organizer with M. Lacey, G. Mockenhaupt, R. Pan, and A. Swiech.	January 2005
<i>Graduate Seminar Co-organizer</i> , Johns Hopkins University, Department of Mathematics	2003

Learning Community and Teaching Related Service

<i>NSF CAREER Learning Community Mentor</i> , University of North Carolina	2015-2019
<i>Faculty Learning Community for Mathematics</i> , The Finish Line Project, Center for Faculty Excellence, UNC	2015-2017
<i>Week of Welcome, Professor Meet and Greet</i> , Tar Heel Beginnings, University of North Carolina	2020-2021
<i>Digital Learning Design and Development for Math 231</i> , Carolina Away and the Friday Center, University of North Carolina	2021
<i>Content developer</i> , Females Excelling More in Math, Engineering, and Science (FEMMES), University of North Carolina	2021

Other Service

Course Coordinator (University of North Carolina): Math 521 (Spring 2022), Math 521 (Spring 2021), Math 521 (Spring 2019), Math 383 (Fall 2016), Math 381 (Spring 2016), Math 521 (Spring 2015), Math 521 (Fall 2012), Math 232 (Spring 2012), Math 383 (Spring 2011), Math 232 (Fall 2009), Math 383 (Spring 2008)

Undergraduate Honors Thesis Defense Committee (University of North Carolina): Alexander Stewart (2022), Alvis Zhaodh (2021), Difan Li (2019), Katrina Lu (2019), Scott Emmons (2019), David Spencer (2017), Arik Wheeler (2017), Laura James (2016), David Clancy (2016), Shreyas Tikare (2014), Bryan Lloyd (2013), Ryan Kirk (2012), Jacob Perry (2010)

Master's Thesis Defense Committee (University of North Carolina): Evan Stafford (2018), Sterling Swygert (2017), Katherine Roddy (2013), Adam Gouge (2012), Anna Geyer (2011), Robert Booth (2011), Adam Graham-Squire (2009)

Graduate Oral Exam Committee (University of North Carolina): Madelyne Brown (2021), Collin Kofroth (2021), Taylor Rhoads (2021), Katherine Slyman (2021), Dmitro Golovanich (2019), Blake Keeler (2019), Katrina Morgan (2018), Robert Booth (2017), Jacob Perry (2017), Dylan Muckerman (2015), Mayukh Muckerjee (2014), David Webb (2014), Bevin Maulsby (2014), Amanda French (2011), John Helms (2011), Adam Graham-Squire (2010), Parul Laul (2009), Indrani Rao (2009), Nathan Pennington (2008), Benjamin Dodson (2008)

Ph.D. Dissertation Defense Committee (University of North Carolina): Taylor Rhoads (2022), Collin Kofroth (2022), Blake Keeler (2021), Dmitro Golovanich (2021), Katrina Morgan (2019), Mengyun Liu (2019, Zhejiang University), Xueyun Lin (2019, Zhejiang University), Dylan Muckerman (2018), Robert Booth (2018), Jacob Perry (2018), David Webb (2017), Mayukh Muckerjee (2015), Bevin Maulsby (2014), Shuxin Wang (2013, University of New Mexico), Amanda French (2012), John Helms (2012), Adam Graham-Squire (2011), Parul Laul (2011), Indrani Rao (2010), Nathan Pennington (2010), Benjamin Dodson (2009)

Reviewer: Mathematical Reviews

2006-2008

Journal Referee: Electronic Journal of Differential Equations, Mathematische Zeitschrift, International Journal of Mathematics and Mathematical Sciences, Journal of Differential Equations, Journal of Hyperbolic Differential Equations, SIAM Journal on Mathematical Analysis, Transactions of the American Mathematical Society, International Mathematical Research Notices, Analysis and PDE, American Journal of Mathematics, Mathematische Nachrichten, Journal of Functional Analysis, Forum Mathematicum, Nonlinear Analysis Series A, Communications on Pure and Applied Analysis, Applicable Analysis, Mathematische Annalen, Differential and Integral Equations, Michigan Mathematical Journal, Mathematika, Communications in Mathematical Physics, Reviews in Mathematical Physics, Evolution Equations and Control Theory, Israel Journal of Mathematics, Advances in Mathematics, Selecta Mathematica, Journal of Evolution Equations, Discrete and Continuous Dynamical Systems (Series A), Annales Henri Poincaré, Surveys in Differential Geometry, Communications on Pure and Applied Mathematics, Indiana University Mathematics Journal, Nonlinear Analysis Series B: Real World Applications, Journal of Mathematical Analysis and Applications, Annales de l'Institut Henri Poincaré (C) Analyses Non Linéaire, Communications in Partial Differential Equations, Duke Mathematical Journal, Proceedings of the Royal Society of Edinburgh Section A: Mathematics, Proceedings of the American Mathematical Society, Inventiones Mathematicae, Calculus of Variations and Partial Differential Equations, Analysis and Mathematical Physics, Pacific Journal of Mathematics

Book Reviewer: Pearson Prentice Hall

American Mathematical Society

1998-2005, 2014-present

Mathematical Association of America

1998-99, 2003-04