# Jason C. Murphy

## $^{1}$ Curriculum Vitae

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# **Contact Information**

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<sup>&</sup>lt;sup>1</sup>Last Update: May 2023

# **Education and Work Experience**

## Education.

- 2009. B.S. Mathematics (with Highest Honors), University of Texas at Austin
- 2010. M.A. Mathematics, University of California Los Angeles
- 2014. Ph.D. Mathematics, University of California Los Angeles
  - Thesis: Nonlinear Schrödinger equations at non-conserved critical regularity
  - Advisors: Rowan Killip and Monica Visan

## Work Experience.

- 2014–2017: NSF Postdoctoral Fellow, Department of Mathematics, University of California, Berkeley
- 2017–2023: Assistant Professor, Department of Mathematics & Statistics, Missouri University of Science and Technology

## **Research Visits.**

- Visitor: Hausdorff Research Institute for Mathematics, Bonn, Germany. July 2014
- Research Member: MSRI, Berkeley, CA. August–December 2015.
- Visitor: Institute for Applied Physics and Computational Mathematics, Beijing, China. July 2015, April 2016, July 2017, July 2018, and November 2019.

## Research

## **Research** Interests.

Nonlinear partial differential equations, harmonic analysis, inverse problems.

#### Funding and Awards.

#### External Funding.

- 2014–2017. NSF Postdoctoral Fellowship. 'Dynamics of Large Solutions to Critical Problems in Dispersive Partial Differential Equations'. Sponsoring Scientist: D. Tataru, UC Berkeley. Award Number: 1400706. Amount Awarded: \$150,000.
- 2017–2019. AMS-Simons Travel Grant. Amount Awarded: \$4,000.
- 2018–2023. Simons Collaboration Grant. Award Number: 578746. Amount Awarded: \$42,000.
- 2022–2024. NSF Standard Grant. 'LEAPS-MPS: Long-time behavior for nonlinear dispersive equations.' Award Number: DMS-2137217. Amount Awarded: \$169,677.

#### Other Awards and Funding.

- 2018. Center for Advancing Faculty Excellence Professional Development Funds (Missouri University of Science and Technology). Amount Awarded: \$1,000.
- 2019. Center for Advancing Faculty Excellence Professional Development Funds (Missouri University of Science and Technology). Amount Awarded: \$1,000.
- 2020. College of Arts, Sciences, and Business Faculty Research Award (Missouri University of Science and Technology). Amount Awarded: \$500.

## Publications and Preprints.

#### Peer-Reviewed Research Papers.

## Publication Year 2014

- J. Murphy, Intercritical NLS: critical H<sup>s</sup>-bounds imply scattering.
   SIAM Journal on Mathematical Analysis 46 (2014), no. 1, 939–997.
- 2. J. Murphy, The defocusing  $\dot{H}^{1/2}$ -critical NLS in high dimensions.

Discrete and Continuous Dynamical Systems, Series-A 34 (2014), no. 2, 733–748.

 C. Miao, J. Murphy, and J. Zheng, *The defocusing energy-supercritical NLS in four space dimensions.* Journal of Functional Analysis 267 (2014), no. 6, 1662–1724.

## Publication Year 2015

 J. Murphy, The radial defocusing nonlinear Schrödinger equation in three space dimensions. Communications in Partial Differential Equations 40 (2015), no. 2, 265–308.

Publication Year 2016

5. R. Killip, J. Murphy, and M. Visan, The final-state problem for the cubic-quintic NLS with nonvanishing boundary conditions.

Analysis & Partial Differential Equations 9 (2016), no. 7, 1523–1574.

Publication Year 2017

6. J. Murphy and F. Pusateri, Almost global existence for cubic nonlinear Schrödinger equations in one space dimension.

Discrete and Continuous Dynamical Series, Series-A 37 (2017), no. 4, 2077–2102.

7. R. Killip, J. Murphy, M. Visan, and J. Zheng, *The focusing cubic NLS with inverse-square potential in three space dimensions.* 

Differential Integral Equations 30 (2017), no. 3-4, 161-206.

- 8. B. Dodson, C. Miao, J. Murphy, and J. Zheng, *The defocusing quintic NLS in four space dimensions*.
  - Annales de l'Institut Henri Poincaré C, Analyse non linéaire 34 (2017), no. 3, 759–787.
- 9. B. Dodson and J. Murphy, A new proof of scattering below the ground state for the 3d radial focusing cubic NLS.

Proceedings of the American Mathematical Society 145 (2017), no. 11, 4589–4867.

10. R. Killip, S. Masaki, J. Murphy, and M. Visan, Large data mass-subcritical NLS: critical weighted bounds imply scattering.

Nonlinear Differential Equations and Applications NoDEA 24 (2017), no. 4, 24:38.

#### Publication Year 2018

11. J. Lu, C. Miao, and J. Murphy, Scattering in  $H^1$  for the intercritical NLS with an inverse-square potential.

Journal of Differential Equations 264 (2018), no. 5, 3174–3211.

12. B. Dodson and J. Murphy, A new proof of scattering below the ground state for the non-radial focusing NLS.

Mathematical Research Letters 25 (2018), no. 6, 1805–1825.

13. R. Killip, J. Murphy, and M. Visan, *The initial-value problem for the cubic-quintic NLS with non*vanishing boundary conditions.

SIAM Journal on Mathematical Analysis 50 (2018), no. 3, 2681–2739.

#### Publication Year 2019

14. J. Murphy, Random data final-state problem for the mass-subcritical NLS in  $L^2$ .

Proceedings of the American Mathematical Society 147 (2019), no. 1, 339–350.

15. R. Killip, S. Masaki, J. Murphy, and M. Visan, *The radial mass-subcritical NLS in negative order* Sobolev spaces.

Discrete and Continuous Dynamical Systems, Series-A 39 (2019), no. 1, 553–583.

16. R. Killip, J. Murphy, and M. Visan, Almost sure scattering for the energy-critical NLS with radial data below  $H^1(\mathbb{R}^4)$ .

Communications in Partial Differential Equations 44 (2019), no. 1, 51–71.

17. S. Masaki, J. Murphy, and J. Segata, Modified scattering for the 1d cubic NLS with a repulsive delta potential.

International Mathematics Research Notices 2019, no. 24, 7577–7603.

Publication Year 2020

18. A. Arora, B. Dodson, and J. Murphy, Scattering below the ground state for the 2d radial nonlinear Schrödinger equation.

Proceedings of the American Mathematical Society 148 (2020), no. 4, 1653–1663.

19. C. Miao, J. Murphy, and J. Zheng, *The energy-critical nonlinear wave equation with an inverse-square potential.* 

Annales de l'Institut Henri Poincaré C, Analyse non linéaire 37 (2020), no. 2, 417–456.

20. S. Masaki, J. Murphy, and J. Segata, *Stability of small solitary waves for the 1d NLS with an attractive delta potential.* 

Analysis & Partial Differential Equations 13 (2020), no. 4, 1099–1128.

- R. Killip, J. Murphy, and M. Visan, *Invariance of white noise for KdV on the line*. Inventiones Mathematicae 222, no. 1, 203–282 (2020).
- J. Murphy and Y. Zhang, Numerical simulations for the energy-supercritical nonlinear wave equation. Nonlinearity 33 (2020), no. 11, 6195–6220.
- 23. B. Dodson, A. Lawrie, D. Mendelson, and J. Murphy, *Scattering for defocusing energy subcritical nonlinear wave equations*.

Analysis & Partial Differential Equations 13 (2020), no. 7, 1995–2090.

#### Publication Year 2021

24. J. Murphy and K. Nakanishi, Failure of scattering to solitary waves for long-range nonlinear Schrödinger equations.

Discrete and Continuous Dynamical Systems, Series-A 41 (2021), no. 3, 1507–1517.

- 25. J. Murphy, Threshold scattering for the 2d radial cubic-quintic NLS.
  Communications in Partial Differential Equations 46 (2021), no. 11, 2213–2234.
- C. Guzmán and J. Murphy, Scattering for the non-radial energy-critical inhomogeneous NLS. Journal of Differential Equations 295 (2021), 187–210.
- R. Killip, J. Murphy, and M. Visan, Scattering for the cubic-quintic NLS: crossing the virial threshold.
   SIAM Journal on Mathematical Analysis 53 (2021), no. 5, 5803–5812.
- C. Miao, J. Murphy, and J. Zheng, Scattering for the non-radial inhomogeneous NLS. Mathematical Research Letters 28 (2021), no. 5, 1481–1504.

#### Publication Year 2022

29. J. Murphy and T. Van Hoose, Modified scattering for a dispersion-managed nonlinear Schrödinger equation.

#### Nonlinear Differential Equations and Applications NoDEA 29 (2022), no. 1, Art. 1, 11pp.

30. J. Murphy, A simple proof of scattering for the intercritical inhomogeneous NLS.
Proceedings of the American Mathematical Society. 150 (2022), no. 3, 1177–1186.

31. M. Cardoso, L. G. Farah, C. Guzmán, and J. Murphy, Scattering below the ground state for the intercritical non-radial inhomogeneous NLS.

Nonlinear Analysis: Real World Applications. Volume 68, 2022, Article 103687.

Publication Year 2023

32. C. Hogan, J. Murphy, and D. Grow, *Recovery of a cubic nonlinearity for the nonlinear Schrödinger equation.* 

Journal of Mathematical Analysis and Applications. 522 (2023), no. 1, Article 127016.

- 33. S. Masaki, J. Murphy, and J. Segata, Asymptotic stability of solitary waves for the 1d NLS with an attractive delta potential.
  - Discrete and Continuous Dynamical Systems, Series-A 43 (2023), no. 6, 2137–2185.
- 34. C. Miao, J. Murphy, and J. Zheng, Threshold scattering for the focusing NLS with a repulsive potential.

Indiana University Mathematics Journal 72 (2023), no. 2, 409–453.

35. J. Murphy and T. Van Hoose, Well-posedness and blowup for the dispersion-managed nonlinear Schrödinger equation.

Proceedings of the American Mathematical Society 151 (2023), no. 6, 2489–2502.

R. Killip, J. Murphy, and M. Visan, *The scattering map determines the nonlinearity*.
 Proceedings of the American Mathematical Society 151 (2023), no. 6, 2543–2557.

#### To Appear.

- 37. L. Campos and J. Murphy, *Threshold solutions for the intercritical inhomogeneous NLS*. To appear in SIAM Journal on Mathematical Analysis.
- 38. L. Campos, J. Murphy, and T. Van Hoose, *Averaging for the dispersion-managed NLS*. To appear in Communications in Contemporary Mathematics.
- 39. A. Ardila and J. Murphy, *Threshold solutions for the 3d cubic-quintic NLS*. To appear in Communications in Partial Differential Equations.

Currently Under Review. (Preprints available on arXiv.)

- 1. A. Ardila and J. Murphy, The cubic-quintic nonlinear Schrödinger equation with inverse-square potential.
- 2. S. Masaki, J. Murphy, and J. Segata, Global dynamics below excited solitons for the non-radial NLS with potential.
- 3. J. Murphy, Recovery of a spatially-dependent coefficient from the NLS scattering map.
- 4. G. Chen and J. Murphy, Recovery of the nonlinearity from the modified scattering map.
- 5. G. Chen and J. Murphy, Stability estimates for the recovery of the nonlinearity from scattering data.

#### Peer-Reviewed Conference Papers.

 2019. J. Murphy, The nonlinear Schrödinger equation with an inverse-square potential. Nonlinear dispersive waves and fluids, 215–225, Contemporary Mathematics 725 (2019).  2. 2021. J. Murphy, A review of modified scattering for the 1d cubic NLS. RIMS Kokyuroku Bessatsu B88 (2021), 119–146.

## Other Writing.

- 2014. J. Murphy, The nonlinear Schrödinger equation at non-conserved critical regularity. PhD Thesis, UCLA.
- 2017. J. Murphy, Subcritical scattering for defocusing NLS. Expository article.
- 2022. J. Murphy, *The scattering map determines the nonlinearity*. Oberwolfach Reports (OWR) 2022/30.

## Invited Talks.

#### Invited Workshop and Conference Talks.

- 2013. Joint International Meeting of the AMS and the Romanian Mathematical Society, Special Session on Nonlinear Evolution Equations
- 2014. Hausdorff Trimester Program in Harmonic Analysis and PDE, Closing Workshop
- 2014. AMS Sectional Meeting, San Francisco State University, Special Session on Hamiltonian PDE
- 2015. MSRI Postdoc Symposium, New challenges in PDE: deterministic dynamics and randomness in high and infinite dimensional systems program
- 2016. AMS Sectional Meeting, North Carolina State University, Special Session on Harmonic Analysis and Dispersive PDE
- 2017. Joint Mathematics Meeting, Atlanta, Georgia, AMS Special Session on Recent Progress on Nonlinear Dispersive and Wave Equations
- 2017. Joint Mathematics Meeting, Atlanta, Georgia, AMS Special Session on Spectral Calculus and Quasilinear Partial Differential Equations
- 2018. AMS Sectional Meeting, Northeastern University, Special Session on the Analysis of Dispersive Equations
- 2018. 12th AIMS Conference Series on Dynamical Systems and Differential Equations, National Taiwan University, Special Session on Nonlinear Evolution Equations
- 2018. Workshop on Hyperbolic and Dispersive Equations, Beijing International Center for Mathematical Research, Peking University
- 2018. 4th Annual Meeting of the SIAM Central States Section, Session on Partial Differential Equations: Analysis, Modeling, and Applications, University of Oklahoma
- 2018. Workshop on Recent Developments in Nonlinear Waves, University of Illinois Chicago
- 2019. Workshop on Harmonic Analysis and Nonlinear Partial Differential Equations, Research Institute for Mathematical Sciences, Kyoto University
- 2020. Workshop on Asymptotic Behaviour of Nonlinear Wave Equations, Bielefeld University. Cancelled due to COVID-19.
- 2021. Joint Mathematics Meeting, AMS Special Session on Partial Differential Equations and Spaces of Holomorphic Functions (online)
- 2021. Evolution Equations in Mathematical Physics: Dispersive and Hyperbolic, Tianjin University (online).

- 2022. Workshop: Nonlinear Waves and Dispersive Equations, Oberwolfach, Germany
- 2022. Inverse Problems in Analysis and Geometry, University of Helsinki, Finland.
- 2022. Workshop on Nonlinear Dispersive Wave Equations, Peking University (online).
- 2022. Midwest PDE Seminar, University of Missouri Columbia.
- 2022. Prairie Analysis Seminar, University of Kansas.
- 2022. Workshop on Scattering and Inverse Scattering, Johann Radon Institute for Computational and Applied Mathematics, Austrian Academy of Sciences (online).

#### Invited Seminars and Colloquia.

- 2013. UC Berkeley Analysis/PDE Seminar
- 2013. University of Minnesota PDE Seminar
- 2014. University of Chicago Calderón–Zygmund Seminar
- 2015. Institute for Applied Physics and Computational Mathematics, Beijing, China
- 2015. UC Davis PDE and Applied Math Seminar
- 2016. Institute for Applied Physics and Computational Mathematics, Beijing, China
- 2016. University of Iowa PDE Seminar
- 2017. Missouri University of Science & Technology, Colloquium
- 2017. San Jose State University, Colloquium
- 2017. George Washington University, Applied Mathematics Seminar
- 2017. Osaka University, Seminar of Differential Equations
- 2017. Korea Institute for Advanced Study, CMC Seminar
- 2017. Institute for Applied Physics and Computational Mathematics, Beijing, China
- 2017. University of Missouri Columbia, Differential Equations Seminar
- 2017. University of Illinois Urbana-Champaign, Harmonic Analysis and Differential Equations Seminar
- 2018. Washington University in St. Louis, Analysis Seminar
- 2018. University of Minnesota, PDE Seminar
- 2018. Georgia Tech, PDE Seminar
- 2018. Fujian Normal University
- 2018. Osaka University, Seminar of Differential Equations
- 2018. Institute for Applied Physics and Computational Mathematics, Beijing, China
- 2018. Beijing Normal University, PDE Seminar
- 2019. University of Kentucky, Analysis and PDE Seminar
- 2019. University of Michigan, Differential Equations Seminar
- 2019. Institute for Applied Physics and Computational Mathematics, Beijing, China
- 2019. Beijing Normal University, PDE Seminar
- 2019. Beihang University, Seminar, Beijing, China
- 2020. Institute for Applied Physics and Computational Mathematics, Beijing, China (online)

- 2021. Bielefeld Analysis Seminar (online)
- 2021. University of Illinois Chicago, Analysis and Applied Mathematics Seminar (online)
- 2021. Institute for Applied Physics and Computational Mathematics, Beijing, China (online)
- 2021. Ningbo University Seminar, Zhejiang, China (online)
- 2022. Saint Louis University Colloquium.
- 2022. Institute for Applied Physics and Computational Mathematics, Beijing, China (online)
- 2022. University of Wisconsin PDE Seminar (online).
- 2022. Washington University in St. Louis Colloquium.
- 2023. University of Oregon Colloquium.
- 2023. University of Washington Seminar.
- 2023. Virginia Tech Colloquium.
- 2023. University of California Santa Cruz Colloquium.
- 2023. Saint Louis University Colloquium

# Teaching

#### Teaching Experience.

- 2009–2014. Teaching Assistant (University of California Los Angeles)
- 2010–2011. Academic Excellence Workshop Facilitator, Center for Excellence in Engineering and Diversity (University of California Los Angeles)
- 2014–2017. Instructor (University of California Berkeley)
- 2017–present. Instructor (Missouri University of Science & Technology)

#### Awards and Funding.

- 2013. Robert Sorgenfrey Distinguished Teaching Award (University of California Los Angeles)
- 2018–2019. University of Missouri System Affordable & Open Educational Resources Initiative Award. Amount Awarded: \$10,250
- 2020–2021. Missouri University of Science & Technology Outstanding Teaching Award
- 2021–2022. Missouri University of Science & Technology Outstanding Teaching Award

#### Courses Taught.

Semester	Course	Level
2014 Fall	Partial Differential Equations	Undergraduate
2015 Spring	Complex Analysis	Undergraduate
2016 Fall	Ordinary Differential Equations	Graduate
2017 Spring	Mathematical Tools for the Physical Sciences	Undergraduate
2017 Fall	Linear Algebra (two sections)	Undergraduate
2018 Spring	Introduction to Real Analysis	Masters
2018 Fall	Linear Algebra	Undergraduate
	Harmonic Analysis I	Graduate
2019 Spring	Harmonic Analysis II	Graduate
2019 Summer	Differential Equations	Undergraduate
2019 Fall	Linear Algebra	Undergraduate
	Introduction to Real Analysis	Masters
2020 Spring	Foundations of Mathematics	Undergraduate
2020 Summer	Linear Algebra*	Undergraduate
2020 Fall	Mathematics of Medical Imaging**	Masters
	Harmonic Analysis I	Graduate
2021 Spring	Calculus with Analytic Geometry III	Undergraduate
	Harmonic Analysis II	Graduate
2021 Summer	Calculus with Analytic Geometry III	Undergraduate
2021 Fall	Advanced Calculus I	Undergraduate
	Introduction to Complex Variables	Masters
2022 Spring	Advanced Calculus II	Undergraduate

2022 Summer	Calculus with Analytic Geometry III	Undergraduate
2022 Fall	Foundations of Mathematics	Undergraduate
	Mathematics of Medical Imaging	Masters
2023 Spring	Advanced Calculus I	Undergraduate

\* Course share with UMSL.

**\*\*** New course.

## Reading Courses Supervised.

- 2015 Spring. Mathematics of Machine Learning (undergraduate)
- 2015 Fall. Mathematics of Signal Processing (undergraduate)
- 2018 Spring. Global Attractors for ODE Models (undergraduate; co-supervised)
- 2020 Spring. Financial Mathematics (graduate)
- 2022 Summer. Inverse Problems (undergraduate)

## **Professional Development.**

• 2018. Fellow of the Missouri Section of Project NExT.

## <u>Service</u>

## Supervision of Graduate Students.

- 2022-present. Jacob Hauck (PhD, Missouri S&T)
- 2021-present. Christopher Hogan (PhD, Missouri S&T)
- 2021-present. Daniel Kovach (MS, Missouri S&T)
- 2020–2022. Timothy Van Hoose (MS, Missouri S&T)

#### Supervision of Undergraduate Research.

- 2018–2019. Missouri S&T OURE Fellows Program. Derivation, analysis, and computation of nonlinear Schrödinger equations with N. Parris
- 2019–2020. Missouri S&T OURE Program. Numerical methods for completely integrable PDE models with A. Chakraborty.
- 2021-2022. Missouri S&T OURE Program. Numerical investigations of one-dimensional nonlinear Schrödinger equations with G. Selligman.
- 2022-2023. Missouri S&T OURE Program. Numerical implementation of 1d inverse scattering with M. Benkendorf.
- 2023. Missouri S&T. Inverse problems for 1d nonlinear wave equations with M. Kovaleksi.

#### Department-level Service.

- 2014–2015. Co-organizer, Analysis & PDE Seminar (UC Berkeley)
- 2018–2020. Undergraduate Curriculum Committee (Missouri S&T)
- 2018–2021. Colloquium Chair (Missouri S&T)
- 2019–2022. Graduate Policy Committee (Missouri S&T)
- 2019–present. Website Committee (Missouri S&T)
- 2019–2022. Ingram Lecture Committee (Missouri S&T)
- 2020–2022. Math & Stats Chair Search Committee (Missouri S&T)
- 2022. Math & Stats AP Search Committee (Missouri S&T)

#### **Professional Service.**

• 2014-present. Peer reviewer for journals, including: Acta Math Sinica, English Series; American Journal of Mathematics; Analysis & PDE; Annals of PDE; Applied Mathematics Letters; Archive for Rational Mechanics and Analysis; Communications in Mathematical Physics; Communications in Partial Differential Equations; Discrete and Continuous Dynamical Systems; International Mathematics Research Notices; Journal of the Australian Mathematical Society; Journal of Differential Equations; Journal of Evolution Equations; Journal of Functional Analysis; Mathematical Research Letters; Mathematische Nachrichten; Nonlinearity; Nonlinear Analysis: Real World Applications; Nonlinear Differential Equations and Applications NoDEA; Nonlinearity; Proceedings of the American Mathematical Society; Studies in Applied Analysis; RIMS Kokyuroku Bessatsu; SIAM Journal on Mathematical Analysis; Studies in Applied Mathematics; Transactions of the American Mathematical Society; Zeitschrift für angewandte Mathematik und Physik

- 2014-present. Reviewer for AMS MathSciNet (MR AuthorID 1034475)
- 2020–2021. Co-organizer of the 'MU-MST Joint Analysis Seminar'
- Organizer of Conference Sessions:
  - Co-organizer, 'Recent progress in nonlinear dispersive PDE', Special session in the 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications; Taipei, Taiwan, July 5–9, 2018
  - Co-organizer, 'Recent progress in nonlinear dispersive PDE', Special session in the 13th AIMS Conference on Dynamical Systems, Differential Equations and Applications; Atlanta, Georgia, June 5–9, 2020. Cancelled due to COVID-19
- 2022–2023. National Science Foundation Reviewer

## Outreach and Other Items.

- 2021–present. Faculty Advisor, Foundation for Undergraduate Mathematicians (Missouri S&T)
- 2018–present. Mentor, National Alliance for Doctoral Studies in the Mathematical Sciences
- Talks for Undergraduate Students.
  - 2017. University of Illinois Urbana Champaign (MATRIX club)
  - 2017. University of Missouri Columbia
  - 2018. Missouri S&T (Kappa Mu Epsilon)
  - 2020. Missouri S&T (Society of Physics Students)
  - 2021. Missouri S&T (Society of Physics Students)
- Talks for Graduate Students.
  - 2021. University of Kentucky Student Analysis Seminar.
- Member, American Mathematical Society

## **Other Items**

#### Undergraduate Honors. (UT Austin)

- 2008. Carmelina Cutro Albino Memorial Endowed Presidential Scholarship
- 2009. Dedman Merit Scholarship
- 2009. College of Natural Sciences Book Award
- 2009. Mathematics Departmental Honors
- 2009. Dean's Honored Graduate

#### Additional Conference and Workshop Participation.

- 2010. Southern California Analysis & PDE (SCAPDE) meeting, UCLA
- 2012. Rivière–Fabes Symposium on Analysis & PDE, University of Minnesota
- 2012. Evolution Equations: a Workshop in Honor of Terence Tao, Northwestern University
- 2012. Evolution equations of physics, fluids, and geometry: asymptotics and singularities, 5-day workshop, Banff International Research Station
- 2012. Seminar on Dispersive Equations, Oberwolfach, Germany
- 2013. Southern California Analysis & PDE (SCAPDE) meeting, UCLA
- 2013. Rivière–Fabes Symposium on Analysis & PDE, University of Minnesota
- 2013. NSF-CBMS Regional Research Conference in the Mathematical Sciences, Kansas State University
- 2013. Meeting: Nonlinear Waves and Dispersive Equations (as US Junior Oberwolfach Fellow), Oberwolfach, Germany
- 2013. Introductory Workshop: Mathematical General Relavity, MSRI
- 2014. Riviére–Fabes Symposium on Analysis & PDE, University of Minnesota
- 2014. Dynamics in Geometric Dispersive Equations, 5-day workshop, Banff International Research Station
- 2015. Introductory Workshop: Randomness and long time dynamics in nonlinear evolution differential Equations, MSRI
- 2015. New challenges in PDE: deterministic dynamics and randomness in high and infinite dimensional systems, MSRI
- 2016. Analysis, PDEs, and Geometry: a conference in honor of Sergiu Klainerman, Princeton University
- 2016. Mathematical and Physical Models of Nonlinear Optics, Institute for Mathematics and its Applications, University of Minnesota
- 2017. Workshop: Nonlinear Waves and Dispersive Equations (as US Junior Oberwolfach Fellow), Oberwolfach, Germany
- 2017. RIMS Workshop on Harmonic Analysis and Nonlinear Partial Differential Equations, Kyoto, Japan
- 2017. Workshop on Inverse Scattering and Dispersive PDEs in One Space Dimension, Fields Institute, Toronto

- 2018. Riviére–Fabes Symposium on Analysis & PDE, University of Minnesota
- 2018. RIMS Workshop on Harmonic Analysis and Nonlinear Partial Differential Equations, Kyoto University
- 2020. AMS Fall Southeastern Sectional Meeting (online)
- 2023. NSF LEAPS-MPS Cohort Meeting.