

Biographical Sketch

Andrea R. Nahmod¹

Education and Professional Preparation.

University of Buenos Aires, Argentina, Licenciada en Matemática, December 1985.
Yale University, New Haven, CT, Ph.D. in Mathematics, December 1991.
Yale University, New Haven, CT, Postdoctoral Associate, Spring 1992.
Macquarie University, Sydney, Australia, Research Postdoctoral Fellow, 1992-1994.

Doctoral Advisor. Ronald R. Coifman, Yale University.

Professional Appointments.

Professor, University of Massachusetts, Amherst, MA, 2008 – present.
Simons Professor, Centre de Recherches Mathématiques, Montreal, Canada, April 2022.
Simons Professor, Mathematical Science Research Institute, Berkeley, CA, Fall 2015.
*Visiting Professor*², MIT, Cambridge, MA, 2013-2014.
Sargent-Faulk Fellow, Radcliffe Institute for Advanced Study, Harvard, 2009-2010.
Professeuse Invitée, Université de Paris-Sud-XI, Orsay, France, May-June, 2005.
Member, Mathematical Science Research Institute, Berkeley, CA, Fall 2005.
*Visiting Scholar*³, Courant Institute, NYU, New York, NY, Fall 2005.
Member, Institute for Advanced Study, Princeton, NJ, 2003-2004.
Associate Professor, University of Massachusetts, Amherst, MA, 2002- 2008.
Assistant Professor, University of Massachusetts, Amherst, MA, 1998- 2002.
Member, Institute for Advanced Study, Princeton, 1997-1998.
Member, Mathematical Science Research Institute, Berkeley, CA, Fall 1997.
Visiting Lecturer, University of Texas at Austin, TX, 1994 -1997.

Honors and Research Grant Awards.

- Simons Presidential Lecture⁴, Simons Foundation, New York (May 31, 2023)
- Simons Professorship, Centre de Recherches Mathématiques, Montréal (April 2022).
- Samuel F. Conti Faculty Fellowship Award, UMass Amherst 2020-2021.
- Outstanding Accomplishments in Research and Creative Activity Award, UMass Amherst, 2016.
- Spotlight Scholar, University of Massachusetts Amherst, 2015-2016.
- Simons Professorship, Mathematical Sciences Research Institute, Berkeley, 2015.
- Fellow of the American Mathematical Society (since 2015).
- Simons Fellow in Mathematics (Simons Foundation), AY 2013-2014.
- Radcliffe Summer Fellow (Radcliffe Institute, Harvard), 2013, 2014, 2017, 2018.
- Sargent-Faulk Radcliffe Fellow (Radcliffe Institute, Harvard) AY 2009-2010

¹Hispanic/Latina; pronouns: she/her/hers

²Sabbatical Leave and Simons Fellow

³Sabbatical Leave.

⁴<https://www.simonsfoundation.org/event/how-do-waves-propagate-randomness/>

- Radcliffe Institute for Advanced Study, Harvard *Exploratory Seminar* Award, 2014⁵
- Grant Support for Nahmod as PI :
 - NSF DMS Grant Award 2400036, July 2024 - 2027 (388.5K, active)
 - Simons Foundation Award 651469, Sept. 2023-2026 (300K⁶, active)
 - NSF DMS Grant Award 2052740, July 2021 - 2024 (390K⁷, active, NCE).
 - NSF DMS Grant Award 2101381, July 2021 - 2024 (237K, active, NCE).
 - Simons Foundation Award 651469, Sept. 2019-2023 (360K⁸, active)
 - NSF DMS Grant Award 1800852, July 2018 - 2021 (240K).
 - NSF DMS Grant Award 1463714, July 2015 - 2018 (285K⁹).
 - NSF DMS Grant Award 1201443, July 2012 - 2015 (250K).
 - NSF DMS Grant Award 0803160, July 2008 - 2012 (150K).
 - NSF DMS Grant Award 0503542, July 2005 - 2008 (125.5K).
 - NSF DMS Grant Award 0202139, July 2002 - 2005 (102K).
 - NSF DMS Grant Award 9971159, July 1999 - 2002 (83K).
- NSF DMS *Conference Award* 1207829; co-PI; March 2012- 2014, 50K.
- ONR N00014-12-1-0581 PR:2PR07401-00; *Conference Award*; co-PI, (2012) 45K
- Yale University, *Conference Award*; co-PI; (2012) 50K.
- Others: Yale University Fellowship, 1986-91; Yale University, Dept. of Mathematics Prize, 1986-91; Fulbright Travel Grant, 1986-90, AWM Travel Grant, 1995.
- Featured As one of 27 women mathematicians in the *Notices of the American Mathematical Society* as part of Women's History Month, March 2018, Volume 65, Issue 03.
- Selected. by the AMS Public Awareness Office to be profiled for MathFest, SIAM, AMS, 2019 JMM, Baltimore, MD.
- Featured as one of only 8 PIs by the NSF's Office of Legislative and Public Affairs (OLPA) in *Medium's* issue on Hispanic/Latinx NSF-funded investigators for Hispanic Heritage Month (2018) <https://medium.com/@NSF/celebrating-scientists-23087207f433> .
- Featured in the October 2023 Lathisms Hispanic Heritage Month. Lathisms: Latinxs and Hispanics in the Mathematical Sciences provide a platform that features prominently the extent of the research, teaching, mentoring, and service contributions of Latinxs and Hispanics in different areas of the Mathematical Sciences. Support of the American Mathematical Society and the Mathematical Association of America. See <https://www.lathisms.org/calendar-2023/dr-andrea-r-nahmod>.

⁵Nahmod and Staffilani, Oct. 30-Nov. 2, 2014; 19K

⁶PI Nahmod's budget of Simons MSP Collaboration on Wave Turbulence, \$6Millions Extension Award/3years.

⁷PI Nahmod's budget of a 1.39M FRG Collaborative Grant Award

⁸PI Nahmod's budget of Simons MSP Collaboration on Wave Turbulence, \$8Millions Award/4years.

<https://www.simonsfoundation.org/2019/06/04/foundation-announces-simons-collaboration-on-wave-turbulence/>

⁹PI Nahmod's budget of a 1.42M FRG Collaborative Grant Award

Publications

- [1] Y. Deng, A. R. Nahmod, and H. Yue, Invariant Gibbs measures and global strong solutions for the nonlinear Schrödinger equations in dimensions two. *Annals of Math.* 200, no.2 (2024) 399–486.
- [2] B. Bringmann, Y. Deng, A.R. Nahmod, and H. Yue. Invariant Gibbs measures for the three dimensional cubic nonlinear wave equation. *Inventiones Mathematicae* 236 (2024), 1133–1411.
- [3] D. Eceizabarrena, V. Banica, A.R. Nahmod and L.Vega, Multifractality in the limit evolution of polygonal vortex filaments. To appear in *Math. Annalen*, (2024) 63pp. <https://doi.org/10.1007/s00208-024-02971-0>
- [4] S. Agrawal and A. R. Nahmod, Uniqueness of the 2D Euler equation of rough domains. Submitted *JEMS* (2023), 33pp. <https://arxiv.org/pdf/2308.12926.pdf>.
- [5] J.K. Miller, A.R. Nahmod, N. Pavlović, M. Rosenzweig and G. Staffilani, A rigorous derivation of the Hamiltonian structure for the Vlasov equation. *Forum of Mathematics, Sigma* (2023), Vol. 11:e77 pp. 1 – 64 doi:10.1017/fms.2023.72.
- [6] Yu Deng, Andrea R. Nahmod and Haitian Yue, The probabilistic scaling paradigm. To appear in *Vietnam Journal of Mathematics* (Springer), Volume 52, (2023) 14 pp.
- [7] Y. Deng, A. R. Nahmod, and H. Yue, Random tensors, propagation of randomness, and nonlinear dispersive equations. *Inventiones Mathematicae* 228 (2022), Issue 2, 539–686. <https://doi.org/10.1007/s00222-021-01084-8>
- [8] D. Mendelson, A.R. Nahmod, N. Pavlović, M. Rosenzweig and G. Staffilani, Poisson commuting energies for a system of infinitely many bosons. *Advances in Math.* 406 (2022), article 108525, 148 pp.
- [9] S. Agrawal and A.R. Nahmod, Uniqueness of the 2D Euler equation on a corner domain with non-constant vorticity around the corner. *Nonlinearity* 35 (2022), no. 6, 2767–2808.
- [10] Y. Deng, A. R. Nahmod and H. Yue. Invariant Gibbs measure and global strong solutions for the Hartree NLS equation in dimension three. *J. Math. Phys.* 62 (2021), article 031514, 39pp. <https://doi.org/10.1063/5.0045062>.
- [11] Y. Deng, A. R. Nahmod, and H. Yue, Optimal local well-posedness for the periodic derivative nonlinear Schrödinger equation. *Comm. Math. Phys.* 384 (2021), no. 2, 1061–1107.
- [12] D. Mendelson, A.R. Nahmod, N. Pavlović, M. Rosenzweig and G. Staffilani, A rigorous derivation of the Hamiltonian structure for the nonlinear Schrödinger equation. *Advances in Math.* 365, (2020) 107054, 115pp.
- [13] S. Chanillo, M. Czubak, D. Mendelson, A. Nahmod and G. Staffilani, Almost sure boundedness of iterates for derivative nonlinear wave equations, *Comm. Anal. Geom.* **28** (2020), no. 4 943–977.
- [14] D. Mendelson, A.R. Nahmod, N. Pavlović and G. Staffilani, An infinite sequence of conserved quantities for the cubic Gross-Pitaevskii hierarchy on \mathbb{R} , *Trans. Amer. Math. Soc.* **371** (2019), no. 7, 5179–5202.
- [15] A.R. Nahmod and G. Staffilani, Randomness and nonlinear evolution equations, *Acta Math.Sin. (Engl. Ser.)* **35** (2019), no. 6, 903–932.

- [16] T. Buckmaster, A. Nahmod, G. Staffilani and K. Widmayer, The surface quasi-geostrophic equation with random diffusion, *International Math Research Notices (IMRN)*, rny261, (2018) <https://doi.org/10.1093/imrn/rny261>
- [17] A.R. Nahmod, N. Pavlovic, G. Staffilani, and N. Tötz, Global Flows with Invariant Measures for the Inviscid Modified SQG Equations, *Stoch. Partial Differ. Equ. Anal. Comput.* **6**, no. 2, 184–210, (2018).
- [18] Andrea R. Nahmod, The Nonlinear Schrödinger Equation on Tori: Integrating Harmonic Analysis, *Geometry and Probability*, *Bull. Amer. Math. Soc. (N.S.)* **53**, (2016), no. 1, 57–91.
- [19] A.R. Nahmod and G. Staffilani, Almost sure well-posedness for the periodic 3D quintic nonlinear Schrödinger equation below the energy space, *J. Eur. Math. Soc. (JEMS)* **17** (2015), no. 7, 1687–1759.
- [20] V. Grigoryan and A. R. Nahmod, Almost critical well-posedness for nonlinear wave equations with $Q_{\mu\nu}$ null forms in 2D *Math Res. Letters*, **21** (2014), no. 2, 313–332.
- [21] N. Lu, A. Nahmod, and C. Zeng, Equivariant and self-similar standing waves for a Hamiltonian hyperbolic-hyperbolic spin-field system. *SIAM Journal on Mathematical Analysis*, Vol. 46, (2014), No. 6, 3913–3956.
- [22] A. R. Nahmod, N. Pavlović and G. Staffilani, Almost sure existence of global weak solutions for super-critical Navier-Stokes equations, *SIAM J. Math. Anal.* **45** (2013), no. 6, 3431–3452.
- [23] A. Nahmod, T. Oh, L. Rey-Bellet and G. Staffilani, Invariant weighted Wiener measures and almost sure global well-posedness for the periodic derivative NLS. *J. Eur. Math Soc. (JEMS)*, Vol. 14 (2012), Issue 4, 1275–1330.
- [24] A. Nahmod, L. Rey-Bellet, S. Sheffield and G. Staffilani, Absolute continuity of Brownian bridges under certain gauge transformations. *Math. Res. Lett.* Vol. 18 no. 5, (2011), 875–887.
- [25] P. Kevrekidis, A. R. Nahmod and C. Zeng, Radial standing and self-similar waves for the hyperbolic cubic NLS in 2D. *Nonlinearity*, Vol. 24 (2011), no. 5, 1523–1538.
- [26] A. Benyi, D. Maldonado, A. R. Nahmod and R.H. Torres, Bilinear Paraproducts Revisited. *Math. Nachr.*, Volume 283 (2010), Issue 9, 1257–1276.
- [27] A. Benyi, A. Nahmod, C. Demeter, C. Thiele, R. Torres and F. Villarroja, Modulation Invariant Bilinear T(1)-theorem. *Journal D’Analyse Mathématique*, 109 (2009), 279–352.
- [28] A. Nahmod, J. Shatah, L. Vega and C. Zeng, Schrödinger maps and their associated frame systems, *International Math. Research Notices*, article ID rnm088, (2007), 29 pages.
- [29] A. Benyi, A. R. Nahmod and R. H. Torres, Sobolev space estimates and symbolic calculus for bilinear pseudodifferential operators. *J. Geom. Anal.* Vol. 16 (2006), no. 3, 431–454.
- [30] C. Kenig, and A. Nahmod, The Cauchy problem for the hyperbolic-elliptic Ishimori system and Schrödinger Maps, *Nonlinearity*, Vol. 18 (2005) no. 5, 1987–2009.
- [31] Andrea R. Nahmod, On global existence of wave maps with critical regularity, *Surveys in Differential Geometry* (Ed. S-T. Yau), Volume 8, (2003), 285–313.
- [32] A. Nahmod, A. Stefanov and K. Uhlenbeck, On the well-posedness of the wave map problem in high dimensions, *Comm. in Analysis and Geometry* 11 (2003), no. 1, 49–84.
- [33] Andrea R. Nahmod, On Schrödinger and wave maps. *Contemp. Math.*, 320, Amer. Math. Soc., Providence, RI, (2003) 295–322.

- [34] A. Nahmod, A. Stefanov and K. Uhlenbeck. On Schrödinger Maps, *Comm. Pure Appl. Math.* 56 (2003), no. 1, 114–151. Erratum to *On Schrödinger Maps* *Comm. Pure Appl. Math.* 57 (2004), no. 6, 833–839.
- [35] J.E. Gilbert and A. R. Nahmod, L^p -Boundedness for Time–Frequency Paraproducts, Part II, *J. of Fourier Anal. and Appl.*, Vol 8, No. 2 (2002), 109–172.
- [36] J.E. Gilbert and A. R. Nahmod, Bilinear Operators with Nonsmooth Symbols, Part I, *J. of Fourier Anal. and Appl.*, Vol. 6, No. 5 (2000), 437–469
- [37] J.E. Gilbert and A. R. Nahmod, Boundedness of Bilinear Operators with Nonsmooth Symbols, *Math. Res. Letters*, 7 (2000), 1–12.
- [38] A. McIntosh and A. R. Nahmod, Heat Kernel Estimates and Functional Calculi of $-b(x)\Delta$ in \mathbf{R}^n , *Mathematica Scandinavica*, Vol. 87 (2000), 287–319.
- [39] J.E. Gilbert and A. R. Nahmod, Hardy spaces and a Walsh model for Bilinear Cone Operators, *Trans. Amer. Math. Soc.*, Vol. 351 (1999), no. 8, 3267–3300.
- [40] P. Auscher, A. McIntosh and A. R. Nahmod, The square root problem of Kato in one dimension, and first order elliptic systems, *Indiana University Mathematics Journal*, Vol. 46, No. 3 (1997), 659–695.
- [41] P. Auscher, A. McIntosh and A. R. Nahmod, Quadratic Estimates and Interpolation, *Indiana University Mathematics Journal*, Vol 46, No. 2 (1997), 375–403.
- [42] Andrea R. Nahmod, Hyperbolic Singular Integral Operators, *Revista Matemática Iberoamericana*, 11 Num. 1 (1995), 103–123.
- [43] Andrea R. Nahmod, Generalized Uncertainty Principles on Spaces of Homogeneous Type, *Journal of Functional Analysis*, Vol. 119, No. 1, (1994), 171–209.
- [44] Andrea R. Nahmod, Geometry of Operators and Spectral Analysis on Spaces of Homogeneous type, *Comptes Rendus de L’Académie des Sciences, Paris*, 313, Série I, (1991), 721–725.

OTHER PUBLICATIONS

- [1] Andrea R. Nahmod, Non-equilibrium invariant measures for the resonant nonlinear Schrödinger equation, *Oberwolfach Reports Extended Abstract, Gibbs Measures for nonlinear dispersive equations Workshop, European Math. Society* (2018).
- [2] Andrea R. Nahmod, Invariant measures and long time dynamics for NLS, *Oberwolfach Reports Extended Abstract, Nonlinear Evolution Problems Workshop, European Math. Soc.* (2016).
- [3] Andrea R. Nahmod, Long time dynamics of random data nonlinear dispersive equations, *Oberwolfach Reports Extended Abstract, Rough Paths, Regularity Structures and Related Topics Workshop, European Math. Soc.* (2016).
- [4] Andrea R. Nahmod, Global existence almost surely of weak solutions for supercritical Navier-Stokes equations, *Oberwolfach Reports Extended Abstract Vol. 9, no 2* (2012) 1563–1637, *European Math. Soc.*
- [5] Andrea R. Nahmod, Boundedness of bilinear pseudodifferential operators, *Oberwolfach Reports Extended Abstracts, Spectral theory and Harmonic analysis Workshop, European Math.Soc.* (2004)

- [6] Andrea R. Nahmod, The hyperbolic-elliptic Ishimori system, Oberwolfach Reports Extended Abstracts, Nonlinear Waves and Dispersive Equations Workshop, European Math.Soc. (2004).
- [7] Andrea R. Nahmod, Geometry of Operators and Spectral Analysis, Ph.D. Dissertation, Yale University, Department of Mathematics, December 1991.
- [8] Andrea R. Nahmod, The Nikisin-Stein Theory and Factorization of Operators, Licenciatura in Mathematics Thesis, University of Buenos Aires, June 1985.

Selected and Recent Lectures

- [1] Calderón Plenary Lecture, UMA 2024, Annual Meeting of the Argentinian Union of Mathematics, Sept. 16-20, 2024, Catamarca, Argentina.
- [2] Invited Speaker, Barcelona Analysis Conference (BAC) 2024, June 3rd to 7th, 2024, Centre de Recerca Matemàtica and Universitat de Barcelona.
- [3] Invited Speaker, Harmonic Analysis and Differential Equations Conference- In Honour of Professor Jill Pipher, Macquarie University, June 23-29, 2024, Sydney Australia
- [4] (Sole) Plenary Speaker at CIMAT's Intersections in Harmonic Analysis, Partial Differential Equations, and Probability conference in Guanajuato, Mexico, October 2, 2023.
- [5] Invited Speaker, Harmonic analysis and differential equations: new questions and challenges. Conference in honor of Luis Vega, BCAM, Bilbao, Spain ,September, 2023.
- [6] Invited Speaker, Simons Foundation Presidential Lecture. Simons Foundation, NYC, May 31, 2023.
- [7] Plenary Speaker, Frontiers in Stochastic Analysis Conference at University of Illinois Chicago, August 2023.
- [8] Invited Speaker, ICERM Workshop on Modern Applied and Computational Analysis, ICERM, Brown U, Providence, RI. June 2023¹⁰
- [9] Invited Speaker, Advances in nonlinear analysis and nonlinear waves. Conference in honor of Frank Merle, IHES, France, May 22–26, 2023.
- [10] Invited Speaker, Workshop on Stochastic PDE and Related Topics. Brin Mathematics Research Center of the. University of Maryland in College Park, MD, November, 2022.
- [11] Invited Speaker, Nonlinear and Random Waves, Kyoto Japan, October 3–5, 2022.
- [12] Invited Panelist, Glimpses of Mathematics, Now and Then: A celebration of Karen Uhlenbeck's 80th birthday. IAS Princeton, September, 2022,
- [13] Invited Speaker, Seminar in the Analysis and Methods of PDE (SIAM PDE), SIAM Webinar, May 2022.
- [14] Invited Speaker, Simons Collaboration on Wave Turbulence Annual Meeting, Simons Foundation, NYC, 2021.
- [15] American Mathematical Society Invited Address, Joint Mathematical Meetings (JMM), 2021.
- [16] Invited Speaker, Centre on Stability, Instability and Turbulence, NYU, Abu Dhabi, 2021.
- [17] Invited Speaker, SWISSMap Workshop on Emergent Theories for Wave Turbulence and Particle Dynamics. Les Diablerets, Switzerland, 2021.
- [18] Invited Speaker, New Mechanisms for regularity, singularity and long time dynamics in fluid equations, Banff International Research Station, 2021

¹⁰Had to cancel due to the sudden and unexpected passing of my Mother in Argentina.

- [19] Invited Speaker, Mathematical Questions in Wave Turbulence Workshop, Banff International Research Station, 2020
- [20] Invited Speaker, Nonlinear Partial Differential Equations and Applications Conference, Michigan's Center for Applied and Interdisciplinary Mathematics, 2019.
- [21] Keynote Address 43rd Annual New York Regional Graduate Mathematics Conference., Syracuse University, NY. 2018.
- [22] Invited Speaker, ICM-Satellite Conference Nonlinear Dispersive Equations, Florianopolis, Brazil. 2018.
- [23] Invited Speaker, INdAM Meeting on Linear and Nonlinear Wave Phenomena: stability, propagation of regularity and turbulence, Cortona, Tuscany, Italy, 2018.
- [24] Invited Speaker, Mathematical Congress of the Americas Session on Nonlinear Dispersive PDEs, McGill University, Montréal, Canada. 2017
- [25] Invited Speaker at the French-American Conference on Nonlinear Dispersive PDEs, Centre Intern. de Rencontres Mathématiques (CIRM), Luminy, Marseille, France. 2017
- [26] Invited Speaker and Participant, Wave Turbulence Workshop, American Institute of Mathematics (AIM), San Jose, CA. May, 2017
- [27] Plenary Speaker at Ohio River Analysis Meeting, Cincinnati, Ohio. 2017
- [28] Invited Speaker, *Nonlinear Waves 2016: June Conference*, Institut des Hautes Études Scientifiques (IHES), Bures-Sur-Yvette, France, 2016.
- [29] Invited Speaker, *Analysis and Beyond: Celebrating Jean Bourgain's Work and Impact*, Institute for Advanced Study, Princeton, NJ, 2016.
- [30] Invited Golub Lectures (4 hours mini-course), SIAM Gene Golub Summer School *Stochastic Differential Equations with Coherent Structures*, Philadelphia, PA, 2016.
- [31] Invited to deliver Annual JMM-AMS Current Events Bulletin Lectures, San Antonio, 2015.

Editorial Work

- [1] Associate Editor Journal:
 - Memoires of the AMS (2022–2027).
 - Transactions of the AMS (2022–2027).
 - SIAM Journal on Mathematical Analysis (2022–present).
 - Orbita Mathematicae¹¹ (2022–present).
 - Stochastic Models (2020–present).
 - Translations of Mathematical Monographs of the AMS (2019–present).
 - Potential Analysis (2012–2020).
- [2] A. R. Nahmod, C. Sogge, S. Zhang, and X. Zhang (Editors) Recent Advances in harmonic Analysis and Partial Differential Equations. AMS Contemporary Mathematics Series Volume 58 (2012)
- [3] E. Gavosto, A.R. Nahmod, M.C. Pereyra, G. Ponce, R.H. Torres, and W. Urbina, Remembering Cora Sadosky. Reprinted from AWM Newsletter 41, no. 2, (2011), 5–14. With additional contributions by Steven Krantz, Maria Dolores Morán and Guido L. Weiss. Association for Women in Mathematics Ser., 4, Harmonic analysis, partial differential equations, complex analysis, Banach spaces, and operator theory. Vol. 1, 29–52, Springer (2016).

¹¹Journal of the Unión Matemática de América Latina y el Caribe (UMALCA)

Selected Professional Service and Program/Conference Organizer

- [1] Program Organizer of *Recent Trends in Stochastic Partial Differential Equations* Semester Program at the Simons-Laufer Mathematical Sciences Institute (formerly MSRI), Berkeley, CA, Fall 2025. (Upcoming)
- [2] Invited Session Organizer of *PDE with Random Data*, 11th World Congress in Probability and Statistics, Bernoulli Society and the Institute of Mathematical Statistics, August 12-16, 2024, Bochum, Germany <https://www.bernoulli-ims-worldcongress2024.org/>.
- [3] Member of the Board of Trustees of the Institute for Computational and Experimental Mathematics (ICERM), Providence, RI, July 2023–present.
- [4] Organizer, Topical Workshop on *Modern Applied and Computational Analysis*, ICERM, Brown, June 2023.
- [5] Organizer of MFO Oberwolfach Workshop on *Deterministic Dynamics and Randomness in PDE*, May 2022.
- [6] AWM-SIAM Kovalevsky Lecture Selection Committee (2022–2025).
- [7] American Mathematical Society Centennial Fellowship Committee, (2019–2021).
- [8] Organizer (on site) of Semester Program, *Hamiltonian Methods in Dispersive and Wave Evolution Equations*, Institute for Computational and Experimental Research Mathematics, Providence, RI, Fall 2021.
- [9] Lead Organizer of Workshop on *Generic behavior of dispersive solutions and wave turbulence*, ICERM, October 2021.
- [10] Member at Large to the American Mathematical Society Committee on Meetings and Conferences (COMC) (2019 –2022).
- [11] Member of AMS Joint Subcommittee on Policy for AMS Meetings in States/Cities with Discriminatory Laws (COMC joint with Committee on Science Policy).
- [12] Organizer Conference on *Rare Events, Information Theory and Statistical Physics* celebrating Richard S. Ellis, April 2019.
- [13] Member External Review Committee of Department of Mathematics, University of Connecticut, Storrs, Sept. 2018 and Sept. 2024.
- [14] Co-Organizer of the FRG Workshops at MIT, Princeton, Chicago and UMass Amherst (2016-2018) (with A. Ionescu, C. Kenig, S. Klainerman and G. Staffilani— FRG co-PIs).
- [15] Member of the Fellows of the American Mathematical Society Selection Committee (2015–2018).
- [16] Chair of the AWM-Sadosky Research Prize in Analysis’ Committee (2013-2017).
- [17] Organizer of Jumbo Semester Program, *New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems*, Mathematical Sciences Research Institute, Berkeley, CA, Fall 2015.
- [18] Organizer of Connections for Women Workshop, *New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems*, Aug. 19–21, 2015, at MSRI, Berkeley, CA.
- [19] Lead Organizer of Research Workshop *New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems*, October 19–30, 2015, at MSRI, Berkeley, CA.
- [20] Ad Hoc Reviewer for the National Science Foundation:
D.M.S. Analysis Program (panelist, multiple times).

D.M.S. CAREER awards (panelist, multiple times)
D.M.S. NSF Postdoctoral Fellowships (panelist)
Institute for Advanced Study at Princeton, *Chair of the NSF Site Visit Team.*
IPAM, UCLA, *Member of the NSF Site Visit Team.*

[21] Ad Hoc External Reviewer:

Agence Nationale de la Recherche, (ANR, France), ANR Appel à projet générique.
Cofund MathInGreaterParis, Postdocs, Mathematics&Theoretical Computer Science.
European Research Council (ERC-STG) - Step 2 - Final stage. Remote Referee.
Confidential evaluation of finalists for Full Professor (W3) position in Germany.
Radcliffe Institute of Advanced Study at Harvard Univ. Fellows Program (multiple times)
Aristeia-II Grants program, Greece.
UBACYT Grants Program, Argentina.
Ad Hoc Reviewer for NSERC Discover Grants, Canada (external reviewer).

[22] Ad Hoc Peer Reviewer for Journals:

Journal of the AMS, Inventiones Mathematicae, Duke Journal, Advances in Mathematics, Communications in Pure and Applied Mathematics, Archive for Rational Mechanics and Analysis, Communications in Mathematical Physics, Electronic Journal of Probability, Forum Math Pi, Forum Math Sigma, Journal of Functional Analysis, Crelle Journal (Journal für die Reine und Angewandte Mathematik), Nonlinearity, Comptes Rendus Mathématique, Journal de l'École Polytechnique –Mathématiques, Communications in Partial Differential Equations, Mathematische Annalen, International Mathematics Research Notices, SIAM Journal of Mathematical Analysis, American Journal of Mathematics, Journal Geometric Analysis, Mathematische Zeitschrift, Journal of Differential Equations, Foundations of Computational Mathematics, AMS Contemporary Mathematics Series, Journal of Differential and Integral Equations, Journal of the London Math. Society, Journal of Fourier Analysis and Applications, DCDS - A, Transactions of the AMS, Proceedings of the American Mathematical Society, Indiana University Journal of Mathematics, AMS Graduate Textbook Series in Mathematics, ...

PhD Thesis Supervised

- [1] Dean Katsaros, PhD Thesis, UMass Amherst 2024.
- [2] Michael Boratko, PhD Thesis, UMass Amherst 2018. (PD at CS, UMass Amherst)
- [3] Haitian Yue, Ph.D. Thesis, UMass Amherst 2018. (PD at USC)
- [4] Xueying Yu, Ph.D. Thesis, UMass Amherst 2018. (Moore Instructor at MIT)
- [5] Allison Tanguay. Ph.D. Thesis, UMass Amherst 2012. (PD U. of Tübingen, Germany)
- [6] Viktor Grigoryan, Ph.D. Thesis, UMass Amherst 2008. (PD at UCSB)
- [7] Tadahiro Oh, Ph.D. Thesis, UMass Amherst 2007. (PD at Univ. of Toronto)
- [8] Nikoalos Tzirakis, Ph.D. Thesis, 2004. (Clay Liftoff Fellow, IAS Member & PD at Univ. of Toronto)

Postdoctoral Mentorees

- [1] Dr. Daniel Eceizabarrena, University of Massachusetts, Amherst 2020- 2024.
- [2] Dr. Siddhant Agrawal, University of Massachusetts, Amherst 2018- 2021.
- [3] Dr. Taryn Flock, University of Massachusetts, Amherst 2017- 2020.
- [4] Dr. Nathan Totz, University of Massachusetts, Amherst 2014- 2017.
- [5] Dr. Nan Lu, University of Massachusetts, Amherst 2011- 2014.

- [6] Dr. Arpad Benyi at University of Massachusetts, Amherst, MA; 2002-2004.
- [7] Dr. Atanas Stefanov at University of Massachusetts, Amherst, MA; 2000-2002.
- [8] Dr. Sanja Hukovic at University of Massachusetts, Amherst, MA; 1999-2001.

Outside Doctoral Committee Member

- [1] Helena McGahagan; Math. PhD 2004 Courant Institute, NYU (advisor J. Shatah).
- [2] Magda Czubak; Math. PhD 2008 Univ. of Texas Austin (advisor K. Uhlenbeck)
- [3] Shabnam Beheshti; Math. PhD 2007 UMass, Amherst (advisor F. Williams).
- [4] Ogzur Simsek; Comp. Sci. PhD 2008 UMass. Amherst (advisor A. Barto)
- [5] Sarah Ostentoski; Comp. Sci. PhD 2010 UMass Amherst (advisor S. Mahadevan)
- [6] Sung-Ha Hwang; Math, PhD 2011 UMass Amherst (advisor L. Rey-Bellet; M. Katsoulakis)

Undergraduate Thesis and REU

- [1] Scott Destromp, Research Undergraduate Experience (REU) Summer 2016.
- [2] Michael Breeling, Capstone Research and Honors Thesis, Fall 2012 – Spring 2013.
- [3] Domonic Mei, Capstone Research and Honors Thesis, Fall 2012 – Spring 2013.
- [4] Nathan Senecal, Capstone Research and Honors Thesis, Spring 2011-Fall 2011.
- [5] Nathan Senecal, Research Undergraduate Experience (REU), Summer 2011.
- [6] Derek Wood, Capstone research and Honors Thesis, Fall 2011-Spring 2012.
- [7] Derek Wood, Independent Study, Spring 2011.
- [8] Adam Cardinal-Stakenas, Independent Study, Spring 2001 and REU Summer 2001.

Other advising

- [1] Mentor at the Women Program in Mathematics, Institute for Advanced Study at Princeton, Princeton, NJ, May 2004.
- [2] Mentor to female junior faculty, graduate and undergraduate students, UMass Amherst.
- [3] Independent Study (graduate and master students), UMass Amherst.

Service to the Department/University

- [1] Member of the College of Natural Sciences Personnel Committee at UMass Amherst, 2019-2020 and since 2022-present.
- [2] Member of the Samuel E. Conti Fellowship Review Committee at UMass Amherst (multiple times).
- [3] Member of the Math&Stats Committee (UMass Amherst) on Faculty Awards, 2022-2023.
- [4] Member of AQAD Committee for Dept. of Math&Stats, UMass Amherst, 2019-2021.
- [5] Chair, Committee on Workplace Climate at Math&Stats (Advisory CNS Dean) 2018-2019.
- [6] Member, CNS Advisory Committee, Workplace Climate (Dean’s committee) 2018-2019.
- [7] Faculty Sponsor, UMass-AWM Student Chapter Spring 2016- Fall 2021.
- [8] Founding Member of College of Natural Sciences’ Women Caucus, 2013–2020.
- [9] Bylaws Committee (chair), Department of Mathematics & Statistics, 2016–2017.
- [10] Space Committee, 2014–2016.
- [11] Distinguished Lectures Series and Colloquiums Committee, Chair 2010–2020; 2024–present.

- [12] Faculty Search Committee (Hiring Committee in Mathematics and Statistics); 2000-2002, 2006–2008, 2010-2012 (Chair 2011-2012), 2015-2016.
- [13] Dean’s Head Search Committee, Mathematics and Statistics 2002 & 2005 & 2008 (Chair).
- [14] Director Graduate Admissions in Mathematics and Statistics 2002-2003.
- [15] Departmental Personnel Committee 2004-2005 & 2008-2009.
- [16] Departmental Executive Committee 2008-2010.
- [17] Hiring Subcommittee in Analysis and PDE’s; 1998–present.
- [18] Hiring Subcommittee in Geometry and Topology; 1998–2008.
- [19] Undergraduate Affairs Committee, 2007–2009.
- [20] Committee for Advanced Qualifying Exams in Analysis; 1998–2020; 2022-present.
- [21] Committee for Advanced Qualifying Exams in Differential Equations 2008, 2011-2013.

Teaching Experience at the University of Massachusetts, Amherst

- M797NE: Probabilistic methods in nonlinear dispersive PDEs (Graduate), Spring 2024 *.
- M797DP Nonlinear Dispersive PDE (Graduate) Spring 2016 *.
- M797DP Nondeterministic Nonlinear Dispersive PDE (Graduate) Spring 2012 *.
- M791A Nonlinear Fourier Analysis and Dispersive Equations (Graduate) Spring 2003.*.
- M797N Introd. to Harmonic Analysis (Graduate) Spring 2001.*
- M731 Introd.to Partial Differential Equations (Graduate) Fall 2007, 2008, 2010, 2011, 2012, 2019.
- M725 Functional Analysis (Graduate, new course) Spring 2019, 2020.
- M697L Wave-packet Analysis and Applications, (Graduate) Spring 2007 *
- M624 Real Analysis II (Graduate) Spring 2002, 2003, 2005, 2006, 2009, 2015, 2017, 2018, 2023, 2024.
- M623 Real Analysis I. Measure theory (Graduate) Fall 2001, 2002, 2014, 2016, 2017, 2022, 2023.
- M534H Introd. to PDE (Honors Undergrad) Spr. 2008, 2009, 2013, 2017, 2018, 2019, 2020.
- M524 Introd. to Modern Analysis II (Honors Undergrad.), Spring 2015, 2016.
- M523H Introd. to Modern Analysis (Honors Undergrad.),Fall 1999, 2000, 2002, 2006, 2010, Spr. 2000, 2012, 2018
- M425 Vector Calculus, Fall 2004; Spring 2006, 2011.
- M331 Ordinary Differential Equations, Fall 2006, Spring 2008, 2013.
- M132H Honors Calculus II, Spring 2001, Fall 2002.
- Math M131H Honors Calculus I, Fall 2001.
- Math M127 Calculus for Business and Social Sci.(Large sections), Fall 2000, 2004.
- Math M132 Calculus II, Spring 1999 and Spring 2000.
- Math M131 Calculus I, Fall 1998.

**Advanced Special Topics Courses Developed by Nahmod and Taught at UMass Amherst .*

Also: Research Working Seminar on Nonlinear PDEs and KAM theory (with L. Rey-Bellet and W-M. Wang), Spring 2005.