

Publications and Preprints

Andrea R. Nahmod

- [1] Y. Deng, A. R. Nahmod, and H. Yue, Invariant Gibbs measures and global strong solutions for the nonlinear Schrödinger equations in dimensions two, <https://arxiv.org/abs/1910.08492>, Submitted (2019), 60pp.
- [2] D. Mendelson, A.R. Nahmod, N. Pavlović, M. Rosenzweig and G. Staffilani, Poisson commuting energies for a system of infinitely many bosons, <https://arxiv.org/abs/1910.06959>, Submitted (2019) 97pp.
- [3] Y. Deng, A. R. Nahmod, and H. Yue, Optimal local well-posedness for the periodic derivative nonlinear Schrödinger equation. <https://arxiv.org/abs/1905.04352>, Submitted (2019), 37pp.
- [4] 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 Mathematics*, **365**, art. 107054, (2020), 115pp.
- [5] 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.
- [6] A.R. Nahmod and G. Staffilani, Randomness and nonlinear evolution equations, *Acta Math. Sin. (Engl. Ser.)* **35** (2019), no. 6, 903–932.
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- [11] 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.
- [12] 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.

- [13] 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.
- [14] 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.
- [15] 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, Issue 4, (2012), 1275–1330.
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- [28] 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
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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 Nikišin-Stein Theory and Factorization of Operators, Licenciatura in Mathematics Thesis, University of Buenos Aires, June 1985.

PhD Thesis Supervised

- [1] Nikoalos Tzirakis, Global Well-Posedness for some Dispersive Partial Differential Equations. Ph.D. Thesis, University of Massachusetts Amherst, 2004. Awarded a Clay Institute Liftoff Fellowship (Summer 2004) and IAS Princeton Member in 2004-2005. Postdoc. at Univ. of Toronto, Canada 2005-2007. Tenured Associate Prof. at the University of Illinois at Urbana-Champaign (Current).
- [2] Tadahiro Oh, Well-Posedness Theory of a One Parameter Family of Coupled Kdv-Type Systems and Their Invariant Gibbs Measures. Ph.D. Thesis, University of Massachusetts Amherst, 2007. Postdoc at Univ. of Toronto, Canada 2007-2010. Assistant Prof. at Princeton Univ., NJ. 2010–2013. Chancellor’s Fellow&Reader (Tenured Associate Prof.) at University of Edinburgh, UK (Current).
- [3] Viktor Grigoryan, Stability of Geodesic Wave Maps. Ph.D. Thesis, University of Massachusetts Amherst, 2008. Postdoc at Univ. of California at Santa Barbara, 2008-2012. Asst. Professor at Simmons College, MA (Current).
- [4] Allison Tanguay, New Bilinear Estimates for Quadratic-Derivative Nonlinear Wave Equations in 2+1 Dimensions. Ph.D. Thesis, University of Massachusetts Amherst, 2012. Postdoc at Univ. of Tübingen, Germany, 2012-2013 and Carleton College, MN 2013-2015. Amherst College, Amherst, MA (Current).
- [5] Xueying Yu, Global well-posedness and scattering for the defocusing quintic nonlinear Schrödinger equation in two dimensions. Ph.D. Thesis, University of Massachusetts Amherst, 2018. Postdoc at MIT (CLE Moore Instructor at MIT), 2018-2021.
- [6] Haitian Yue, Well-posedness for the cubic Nonlinear Schrödinger equations on tori. Ph.D. Thesis, University of Massachusetts Amherst, 2018. Postdoc University of Southern California, 2018-2021.
- [7] Michael Boratko, On the growth of Sobolev norms for the NLS on tori and boundary unique continuations for elliptic PDE, PhD Thesis, University of Massachusetts, Amherst, 2018. Postdoc at the College of Information and Computer Sciences at UMass Amherst (Prof. Andrew McCallum’s Lab on Information Extraction and Synthesis) 2018–2021.

Editorial Work

- [1] American Mathematical Society Translations of Mathematical Monographs Editorial Committee, (February 2020- 2024).
- [2] Associate Editor: Potential Analysis Journal, Springer (since 2012–present).
- [3] 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)
- [4] E. Gavosto, A.R. Nahmod, M.C. Pereyra, G. Ponce, R.H. Torres, and W. Urbina, Remembering Cora Sadosky. With additional contributions by Steven Krantz, Maria Dolores Morn and Guido L. Weiss. Harmonic analysis, partial differential equations, complex analysis, Banach spaces, and operator theory. Vol. 1, 2952, Springer (2016).