

# MONICA VIȘAN

## EDUCATION:

Ph.D. in Mathematics	University of California, Los Angeles	2006
<i>Advisor: Terence Tao</i>		
B.S. in Mathematics	University of Bucharest, Romania	2002

## ACADEMIC APPOINTMENTS:

Professor	ISTA	2026–
Professor	UCLA	2014–2026
Associate Professor	UCLA	2011–2014
Assistant Professor	UCLA	2009–2011
Assistant Professor	University of Chicago	2008–2009
Member of the IAS	Princeton	2006–2008

## EXTENDED SCIENTIFIC VISITS:

Research Fellow	ICERM	2021
Visiting Researcher	IHES	2016
Research Professorship	MSRI	2015
Visiting Professor	HIM	2014
Research Member	MSRI	2011
Harrington Faculty Fellow	UT Austin	2010–2011
Research Member	MSRI	2005

## HONORS and AWARDS:

Plenary Speaker, 16th ISAAC Congress, Xiamen, China, 2027  
ICM Invited Speaker, 2026  
Edmond and Nancy Tomastik Prize in Differential Equations, 2026  
AWM–AMS Emmy Noether Lecturer, 2026  
Uhlenbeck Lecturer at the WAM Program, IAS, 2026  
Plenary Speaker, CMS Winter Meeting, Toronto, Canada, 2025  
Simons Fellow in Mathematics, 2024–2025  
Elected Fellow of the American Mathematical Society, 2024  
Frontiers of Science Award, International Congress of Basic Science, 2023  
Best Article Accepted and Published in SIMA, 2020  
Honorable mention, UCLA Division of Physical Sciences Outstanding Discovery Award, 2019  
Robert Sorgenfrey Distinguished Teaching Award, 2018  
Plenary Speaker, AMS Fall Western Section Meeting, 2011  
Kavli Fellow, 2010  
Alfred P. Sloan Research Fellowship, 2010  
NSF Grants DMS–0901166, DMS–0965029, DMS–1161396, DMS–1500707, DMS–1763074,  
DMS–2054194, DMS–2348018, collectively \$1,559,477  
Clay Liftoff Fellowship, 2006  
Horn–Moez Prize for Excellence in First-Year Graduate Studies, UCLA, 2003  
Pauly Fellowship (UCLA), 2002–2006

Dean's Award for Excellence, Valedictorian, University of Bucharest, 2002  
 Erasmus Fellowship awarded by the University Tor Vergata, Rome, 1999–2000  
 Honors Fellowship, University of Bucharest, 1998–2002  
 Award for Excellence, Valedictorian, Trajan College, 1998

### PROFESSIONAL SERVICE:

- Elected member of the Editorial Boards Committee of the AMS, 2026–2029
- Editor, Transactions of the American Mathematical Society, 2018–2026
- Editor, Memoirs of the American Mathematical Society, 2018–2026
- Editor, Proceedings of the London Mathematical Society, 2021–2025
- Editor, Ars Inveniendi Analytica, 2021–2024
- Member of the AMS–Simons Travel Grants Committee, 2014–2017
- Advisory Board, Young Mathematicians Conference, 2012–Present
- Member of the Frontier of Science Award Selection Committee, 2024–2025
- Member of the Scientific Advisory Committee for the Balkan Mathematical Conference 2024–27
- Reviewer for the Austrian Science Fund, 2019–Present
- Reviewer for the National Science Foundation, 2010–Present
- Evaluator to full professorship for universities in Europe and USA
- Served on various university and departmental committees at UCLA including: Legislative Assembly (2016–2023), Ombudsperson for the Math Department, Graduate Vice Chair (acting), Staff Search (2017–2021, 2023–2024), Graduate Admissions, Graduate Studies, Graduate Advisors, Distinguished Lecture Series, Curtis Center for Mathematics and Teaching, Mathematics Undergraduate Merit Scholarship, and 25 PhD thesis committees.

### ADVISING and MENTORING ACTIVITY:

**Graduate Students:** Jason Murphy (PhD 2014), Casey Jao (PhD 2016), Adam Azzam (PhD 2017), Yunfeng Zhang (PhD 2018), Maria Ntekoume (PhD 2020), Gyu Eun Lee (PhD 2021), Blaine Talbut (PhD 2021), Thierry Laurens (PhD 2023), Itai Bar-Natan (PhD candidate), Matthew Kowalski (PhD 2026), Nicholas Hu (PhD 2026), James Hogan (PhD candidate), Hagen Papenburg (PhD 2026)

**Postdoctoral Scholars:** Rana Badreddine (2024–2027), Katie Marsden (2024–2027), Saikatul Haque (2023–2026), Zhimeng Ouyang (2021–2022), Andreia Chapouto (2021–2023), Justin Forlano (2020–2023), Benjamin Harrop-Griffiths (2018–2022), Yannis Angelopoulos (2016–2018), Yu Zhang (2014–2016), Betsy Stovall (2009–2012)

### CONFERENCES and SUMMER SCHOOLS CO-ORGANIZED:

- Special session on “Recent Advances in Nonlinear Dispersive PDE” at the 16th ISAAC Congress, Xiamen, China, 2027. Co-organized with R. Killip.
- AIM focused workshop “New Frontiers in Dispersive Integrable Equations”, Caltech, USA, 2027. Co-organized with T. Grava, and P. Miller.
- Program “Dispersive Integrable Systems: Pathfinders in Hamiltonian Systems”, Institut Henri Poincare, Paris, France, 2026. Co-organized with P. Gérard, T. Grava, and P. Miller.
- Women+ and Mathematics, Institute for Advanced Study, Princeton, USA, 2026.
- Conference “Nonlinear Waves and Dispersive Equations”, Oberwolfach, Germany, 2026. Co-organized with S. Herr, P. Raphael, and D. Tataru.

- Conference “Dispersive Integrable Systems: Pathfinders in Infinite-Dimensional Hamiltonian Systems”, CIRM, France, 2025. Co-organized with P. Gérard, T. Grava, and P. Miller.
- Program “Harmonic and Microlocal Analysis in PDE”, MATRIX Mathematical Research Institute, Australia, 2024. Co-organized with Z. Guo, A. Hassell, and Q. Jia.
- Special session on “Harmonic Analysis and Hamiltonian Partial Differential Equations” at the NZMS, AustMS, and AMS Joint Meeting, Auckland, New Zealand, 2024. Co-organized with Z. Guo and R. Killip.
- Workshop “Nonlinear Dispersive Wave Equations”, Peking University, China, 2022. Co-organized with Z. Guo, R. Killip, and B. Wang.
- Conference “Nonlinear Waves and Dispersive Equations”, Oberwolfach, Germany, 2022. Co-organized with H. Koch, P. Raphael, and D. Tataru.
- Conference “Hamiltonian Methods and Asymptotic Dynamics”, ICERM, 2021. Co-organized with A. Ionescu, K. Nakanishi, and Y. Martel.
- Conference “Nonlinear Waves and Dispersive Equations”, Oberwolfach, Germany, 2017. Co-organized with H. Koch, P. Raphael, and D. Tataru.
- Participating School in Analysis and PDE, Korea, 2015. Co-organized with R. Killip and S. Kwon.
- Special Session on “Nonlinear Dispersive Equations”, AMS–RMS Joint International Meeting, Alba Iulia, Romania, 2013. Co-organized with D. Tataru.
- Southern California Analysis and PDE Conference, UCLA, 2013.
- Oberwolfach Seminar on Dispersive Equations, Oberwolfach, Germany, 2012. Co-organized with H. Koch and D. Tataru.
- Special Session on “Harmonic Analysis and Dispersive PDE”, AMS Western Section Meeting, University of Utah, Salt Lake City, 2011. Co-organized with B. Stovall and X. Zhang.
- Harrington Symposium, UT Austin, 2011.
- Southern California Analysis and PDE Conference, UCLA, 2010.

#### **SELECTED ADDRESSES:**

- Plenary speaker, 16th ISAAC Congress, Xiamen, China, 2027
- ICM invited speaker, 2026
- Invited speaker, “New Methods in Evolution Partial Differential Equations”, Princeton University, 2026
- Uhlenbeck Lecturer at the WAM Program, IAS, 2026
- AWM–AMS Emmy Noether Lecturer, 2026
- Plenary speaker, CMS Winter Meeting, Toronto, Canada, 2025
- Invited speaker, 2nd Atlantic Conference in Nonlinear Partial Differential Equations, Lisbon, Portugal, 2025
- Invited speaker: Nonlinear Dispersive Equations: Advances and Perspectives, CIRM, Marseille, France, 2025
- Invited speaker, “Harmonic Analysis and Hamiltonian Partial Differential Equations”, Joint Meeting of NZMS–AustMS–AMS, Auckland, New Zealand, 2024
- Invited speaker, ICMAM Latin America Satellite Conference on Analysis and PDE, 2023
- Colloquium, University of Michigan, Ann Arbor, 2023
- Award lecture, International Congress of Basic Science, China, 2023
- Invited speaker, First Balkan Mathematics Conference, Romania, 2023
- Invited speaker, Contemporary Analysis and Its Applications, Slovenia, 2023
- Plenary speaker, 87th Midwest PDE Seminar, University of Notre Dame, 2023

- Invited speaker, “Harmonic Analysis and Partial Differential Equations”, Hausdorff Center for Mathematics, Germany, 2023
- Colloquium, University of Toronto, 2023
- Invited speaker, Geometric and Functional Inequalities and Applications Seminar, 2023
- Invited speaker, “Women in Nonlinear Dispersive PDEs”, Banff International Research Station, Canada, 2023
- Plenary speaker, 18th Prairie Analysis Seminar, University of Kansas, Lawrence, 2022
- Plenary speaker, Workshop on Nonlinear Dispersive Wave Equations, Peking University, 2022
- Invited speaker, “Advances in Nonlinear differential equations: Analysis, Numerics and Applications”, Tianjin University, 2022
- Invited speaker, “Probability, Analysis and Dynamics”, Bristol, UK, 2022
- Invited speaker, PDE Geometric Analysis Seminar, University of Wisconsin, 2022
- Invited speaker, Institute of Applied Physics and Computational Mathematics, Beijing, 2021
- Invited speaker, “Generic Behavior of Dispersive Solutions and Wave Turbulence”, ICERM, 2021
- Invited speaker, “Seminar in the Analysis and Methods of PDE (SIAM PDE)”, 2021
- Invited speaker, Analysis Seminar, UCLA, 2021
- Invited speaker, Analysis Seminar, Caltech, 2021
- Invited speaker, Analysis Seminar, University of Rochester, 2021
- Invited speaker, MU–MST Joint Analysis Seminar, 2021
- Invited speaker, Contemporary Analysis and Its Applications, Slovenia, 2021
- Lecture series, Peking University, 2021
- Invited speaker, Institute of Applied Physics and Computational Mathematics, Beijing, 2021
- Invited speaker, PDE Seminar, Shanghai Tech University, 2020
- Hausdorff Colloquium, Bonn, Germany, 2019
- Colloquium, University of Bielefeld, Germany, 2019
- Invited speaker, Applied PDE Seminar, University of Washington, Seattle, 2019
- Invited speaker, “Advances in Dispersive Equations: Challenges & Perspectives”, Banff International Research Station, Canada, 2019
- Invited speaker, “Spectral Methods in Mathematical Physics”, Institute Mittag-Leffler, Sweden, 2019
- Plenary lecture, RIMS Workshop on Harmonic Analysis and Nonlinear Partial Differential Equations, Kyoto University, Japan, 2018
- Lecture series, Institute of Applied Physics and Computational Mathematics, Beijing, 2018
- Public lecture, ETH Zurich, Switzerland, 2018
- Invited speaker, Analysis Seminar, Princeton University, 2018
- CAMS Colloquium, USC, 2018
- Plenary lecture, Second Northeastern Analysis Meeting, Albany, NY, 2017
- Colloquium, UIUC, 2017
- Lecture series, Summer Northwestern Analysis Program, Northwestern University, 2017
- Invited speaker, “Focus Program on Nonlinear Dispersive PDE and Inverse Scattering”, Fields Institute, 2017
- Invited speaker, “Asymptotic Analysis and Evolution Equations”, CIRM, France, 2017
- Plenary lecture, Sixth Ohio River Analysis Meeting, University of Kentucky, Lexington, 2016
- Invited speaker, Southern California PDE Conference, 2016
- Invited speaker, “Nonlinear Waves”, IHES, France, 2016
- Invited speaker, “New Challenges in PDE”, MSRI, 2015

- Lecture series, 14th New Mexico Analysis Seminar, New Mexico State University, Las Cruces, 2015
- Invited speaker, AMS Spring Western Sectional Meeting, 2015
- Colloquium, Women Advancing Arizona Mathematics, University of Arizona, Tucson, 2014
- Invited speaker, Hausdorff Research Institute for Mathematics, Bonn, Germany, 2014
- Invited speaker, Mathematical Physics Seminar, Caltech, 2013
- Invited speaker, “Spectral Theory and PDE”, UCLA, 2013
- Lecture series, Oberwolfach Seminar on Dispersive Equations, Oberwolfach, Germany, 2012
- Invited speaker, “Workshop on Evolution Equations”, Northwestern University, 2012
- Invited speaker, Tata Institute for Fundamental Research, India, 2012
- Plenary lecture, Young Mathematicians Conference, Ohio State University, Columbus, 2011
- Plenary lecture, AMS Fall Western Section Meeting, University of Utah, Salt Lake City, 2011
- Invited speaker, Nonlinear Dispersive Equations Conference, ETH, Zurich, Switzerland, 2011
- Colloquium, USC, 2010
- Colloquium, Rice University, 2010
- Invited speaker, Institut Henri Poincaré, Paris, France, 2009
- Invited speaker, Fourth Chicago Area PDE Workshop, UIC, Chicago, 2009
- Invited speaker, KMS-AMS Joint Meeting, Ewha Women’s University of Seoul, Korea, 2009
- Colloquium, UCLA, 2008
- Colloquium, Northwestern University, 2008
- Colloquium, Caltech, 2008
- Colloquium, University of Michigan, Ann Arbor, 2008
- Lecture series, Peking University, Beijing, China, 2008
- Lecture series, Clay Math. Institute Summer School on Evolution Equations, Switzerland, 2008
- Invited speaker, Riviere–Fabes Symposium, University of Minnesota, 2008
- Colloquium, Kansas State University, 2007
- Invited speaker, “Analyse des Equations aux Derivees Partielles”, Evian, France, 2007
- Plenary lecture, 59th Midwest Partial Differential Equations Seminar, University of Kentucky, Lexington, 2007
- Lecture series, Kyoto University, Japan, 2007
- Invited speaker, Wolfgang Pauli Institute, Vienna, Austria, 2007
- Invited speaker, CMS Meeting, Toronto, Canada, 2006

#### **PUBLICATIONS and PREPRINTS:**

- S. Haque, R. Killip, M. Visan, and Y. Zhang, *Growth of Fourier–Lebesgue norms for mKdV*. Preprint arXiv:2511.17471.
- R. Badredinne, R. Killip, and M. Visan, *Orbital stability of Benjamin–Ono multisolitons*. Preprint arXiv:2509.14153.
- B. Harrop-Griffiths, R. Killip, and M. Visan, *Scattering for the nonlinear Schrödinger equation with concentrated nonlinearity*. Preprint arXiv:2507.14571.
- B. Harrop-Griffiths, R. Killip, and M. Visan, *A priori bounds and equicontinuity of orbits for the intermediate long wave equation*. Preprint arXiv:2506.23868.
- S. Haque, R. Killip, M. Visan, and Y. Zhang, *Global well-posedness and equicontinuity for mKdV in modulation spaces*. Pure Appl. Anal. **7** (2025), no. 3, 615–637.
- B. Harrop-Griffiths, R. Killip, and M. Visan, *The nonlinear Schrödinger equation with sprinkled nonlinearity*. Nonlinearity **38** (2025), no. 9, Paper No. 095020.

- R. Killip, Z. Ouyang, M. Visan, and L. Wu, *The modified Korteweg–de Vries limit of the Ablowitz–Ladik system*. Discrete Contin. Dyn. Syst. **45** (2025), no. 3, 821–846.
- C. Fan, R. Killip, M. Visan, and Z. Zhao, *Dispersive decay for the mass-critical nonlinear Schrödinger equation*. Math. Z. **311** (2025), no. 1, Paper No. 21.
- R. Killip, J. Murphy, and M. Visan, *Determination of Schrödinger nonlinearities from the scattering map*. Nonlinearity **38** (2025), no. 1, Paper No. 015021, 20 pp.
- J. Forlano, R. Killip, and M. Visan, *Invariant measures for mKdV and KdV in infinite volume*. Preprint arXiv:2401.04292.
- R. Killip, T. Laurens, and M. Visan, *Scaling-critical well-posedness for continuum Calogero–Moser models*. Commun. Am. Math. Soc. **5** (2025), 284–320.
- N. Hu, R. Killip, and M. Visan, *Deconvolutional determination of the nonlinearity in a semilinear wave equation*. Pure Appl. Anal. **7** (2025), no. 1, 1–17.
- L. Grafakos and M. Visan, *Remarks on countable subadditivity*. Proc. Roy. Soc. Edinburgh Sect. A **154** (2024), no. 5, 1504–1517.
- R. Killip, T. Laurens, and M. Visan, *Sharp well-posedness for the Benjamin–Ono equation*. Inventiones Mathematicae **236** (2024), no. 3, 999–1054.
- A. Chapouto, R. Killip, and M. Visan, *Bounded solutions of KdV: uniqueness and the loss of almost periodicity*. Duke Math. J. **173** (2024), no. 7, 1227–1267.
- R. Killip, J. Murphy, and M. Visan, *The scattering map determines the nonlinearity*. Proc. Amer. Math. Soc. **151** (2023), no. 6, 2543–2557.
- R. Killip, Z. Ouyang, M. Visan, and L. Wu, *Continuum limit for the Ablowitz–Ladik system*. Nonlinearity **36** (2023), no. 7, 3751–3775.
- B. Harrop-Griffiths, R. Killip, M. Ntekoume, and M. Visan, *Global well-posedness for the derivative nonlinear Schrödinger equation in  $L^2(\mathbb{R})$* . To appear in J. Eur. Math. Soc.
- B. Harrop-Griffiths, R. Killip, and M. Visan, *Large-data equicontinuity for the derivative NLS*. Int. Math. Res. Not. IMRN 2023, no. 6, 4601–4642.
- R. Killip, M. Ntekoume, and M. Visan, *On the well-posedness problem for the derivative nonlinear Schrödinger equation*. Analysis and PDE **16-5** (2023), 1245–1270.
- B. Harrop-Griffiths, R. Killip, and M. Visan, *Microscopic conservation laws for integrable lattice models*. Monatshefte für Mathematik **196** (2021), no. 3, 477–504.
- R. Killip, and M. Visan, *Orbital stability of KdV multisolitons in  $H^{-1}$* . Comm. Math. Phys. **389** (2022), no. 3, 1445–1473.
- R. Killip, J. Murphy, and M. Visan, *Scattering for the cubic-quintic NLS: crossing the virial threshold*. SIAM J. Math. Anal. **53** (2021), no. 5, 5803–5812.
- B. Harrop-Griffiths, R. Killip, and M. Visan, *Sharp well-posedness for the cubic NLS and mKdV in  $H^s(\mathbb{R})$* . Forum of Math. Pi **12** (2024), Paper No. e6, 86 pp.
- B. Bringmann, R. Killip, and M. Visan, *Global well-posedness for the fifth-order KdV equation in  $H^{-1}(\mathbb{R})$* . Annals of PDE. **7** (2021), no. 2, Paper No. 21.
- R. Killip, J. Murphy, and M. Visan, *Invariance of white noise for KdV on the line*. Inventiones Mathematicae **222** (2020), no. 1, 203–282.
- R. Killip and M. Visan, *Sonin’s argument, the shape of solitons, and the most stably singular matrix*. Harmonic analysis and nonlinear partial differential equations, 23–32, RIMS Kokyuroku Bessatsu, B74, Res. Inst. Math. Sci. (RIMS), Kyoto, 2019.
- Y. Angelopoulos, R. Killip, and M. Visan, *Invariant measures for integrable spin chains and integrable discrete NLS*. SIAM J. Math. Anal. **52** (2020), no. 1, 135–163.
- R. Killip, S. Masaki, J. Murphy, and M. Visan, *The radial mass-subcritical NLS in negative order Sobolev spaces*. Discrete Contin. Dyn. Syst. **39** (2019), no. 1, 553–583.
- R. Killip and M. Visan, *KdV is wellposed in  $H^{-1}$* . Annals of Math. **190** (2019), no. 1, 249–305.

- R. Killip, J. Murphy, and M. Visan, *Almost sure scattering for the energy-critical NLS with radial data below  $H^1(\mathbb{R}^4)$* . Comm. PDE. **44** (2019), no. 1, 51–71.
- R. Killip, M. Visan, and X. Zhang, *Finite-dimensional approximation and non-squeezing for the cubic nonlinear Schrödinger equation on  $\mathbb{R}^2$* . Amer. J. Math. **143** (2021), no. 2, 613–680.
- R. Killip, M. Visan, and X. Zhang, *Symplectic non-squeezing for the cubic NLS on the line*. Int. Math. Res. Not. (2019), no. 5, 1312–1332.
- C. Jao, R. Killip, and M. Visan, *Mass-critical inverse Strichartz theorems for 1D Schrödinger operators*. Rev. Mat. Iberoam. **35** (2019), no. 3, 703–730.
- R. Killip, M. Visan, and X. Zhang, *Low regularity conservation laws for integrable PDE*. Geom. Funct. Anal. **28** (2018), no. 4, 1062–1090.
- R. Killip, J. Murphy, and M. Visan, *The initial-value problem for the cubic-quintic NLS with nonvanishing boundary conditions*. SIAM J. Math. Anal. **50** (2018), no. 3, 2681–2739.
- R. Killip, C. Miao, M. Visan, J. Zhang, and J. Zheng, *Sobolev spaces adapted to the Schrödinger operator with inverse-square potential*. Math. Z. **288** (2018), no. 3-4, 1273–1298.
- R. Killip, S. Masaki, J. Murphy, and M. Visan, *Large data mass-subcritical NLS: critical weighted bounds imply scattering*. NoDEA Nonlinear Differential Equations Appl. **24** (2017), no. 4, Art. 38, 33 pp.
- R. Killip, C. Miao, M. Visan, J. Zhang, and J. Zheng, *The energy-critical NLS with inverse-square potential*. Discrete Contin. Dyn. Syst. **37** (2017), no. 7, 3831–3866.
- R. Killip, T. Oh, O. Pocovnicu, and M. Visan, *Solitons and scattering for the cubic-quintic nonlinear Schrödinger equation on  $\mathbb{R}^3$* . Arch. Ration. Mech. Anal. **225** (2017), no. 1, 469–548.
- 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.
- R. Killip, J. Murphy, and M. Visan, *The final-state problem for the cubic-quintic NLS with nonvanishing boundary conditions*. Anal. PDE **9** (2016), no. 7, 1523–1574.
- R. Killip, M. Visan, and X. Zhang, *Riesz transforms outside a convex obstacle*. Int. Math. Res. Not. IMRN **2016**, no. 19, 5875–5921.
- R. Killip, M. Visan, and X. Zhang, *Quintic NLS in the exterior of a strictly convex obstacle*. Amer. J. Math. **138** (2016), no. 5, 1193–1346.
- R. Killip and M. Visan, *Scale invariant Strichartz estimates on tori and applications*. Math. Res. Lett. **23** (2016), no. 2, 445–472.
- R. Killip, M. Visan, and X. Zhang, *The focusing cubic NLS on exterior domains in three dimensions*. Appl. Math. Res. Express. AMRX **2016**, no. 1, 146–180.
- R. Killip, B. Stovall, and M. Visan, *Blowup behaviour for the nonlinear Klein–Gordon equation*. Math. Ann. **358** (2014), no. 1-2, 289–350.
- R. Killip, T. Oh, O. Pocovnicu, and M. Visan, *Global well-posedness of the Gross–Pitaevskii and cubic-quintic nonlinear Schrödinger equations with non-vanishing boundary conditions*. Math. Res. Lett. **19** (2012), no. 5, 969–986.
- R. Killip and M. Visan, *Global well-posedness and scattering for the defocusing quintic NLS in three dimensions*. Analysis and PDE **5** (2012), no. 4, 855–885.
- M. Visan, *Global well-posedness and scattering for the defocusing cubic NLS in four dimensions*. Int. Math. Res. Not. IMRN **2012**, no. 5, 1037–1067.
- R. Killip, B. Stovall, and M. Visan, *Scattering for the cubic Klein–Gordon equation in two space dimensions*. Trans. Amer. Math. Soc. **364** (2012), no. 3, 1571–1631.
- R. Killip, S. Kwon, S. Shao, and M. Visan, *On the mass-critical generalized KdV equation*. Discrete Contin. Dyn. Syst. **32** (2012), no. 1, 191–221.
- R. Killip and M. Visan, *Smooth solutions to the nonlinear wave equation can blow up on Cantor sets*. Preprint arXiv:1103.5257.

- R. Killip and M. Visan, *The defocusing energy-supercritical nonlinear wave equation in three space dimensions*. Trans. Amer. Math. Soc. **363** (2011), no. 7, 3893–3934.
- R. Killip and M. Visan, *The radial defocusing energy-supercritical nonlinear wave equation in all space dimensions*. Proc. Amer. Math. Soc. **139** (2011), no. 5, 1805–1817.
- R. Killip and M. Visan, *Energy-supercritical NLS: critical  $H^s$ -bounds imply scattering*. Comm. PDE. **35** (2010), no. 6, 945–987.
- R. Killip and M. Visan, *The focusing energy-critical nonlinear Schrödinger equation in dimensions five and higher*. Amer. J. Math. **132** (2010), no. 2, 361–424.
- R. Killip, M. Visan, and X. Zhang, *Energy-critical NLS with quadratic potentials*. Comm. PDE. **34** (2009), no. 10-12, 1–35.
- R. Killip, T. Tao, and M. Visan, *The cubic nonlinear Schrödinger equation in two dimensions with radial data*. J. Eur. Math. Soc. **11** (2009), no. 6, 1203–1258.
- R. Killip, D. Li, M. Visan, and X. Zhang, *Characterization of minimal-mass blowup solutions to the focusing mass-critical NLS*. SIAM J. Math. Anal. **41** (2009), no. 1, 219–236.
- M. Visan and X. Zhang, *Global well-posedness and scattering for a class of nonlinear Schrödinger equations below the energy space*. Differential and Integral Equations **22** (2009), no. 1-2, 99–124.
- R. Killip, M. Visan, and X. Zhang, *The mass-critical nonlinear Schrödinger equation with radial data in dimensions three and higher*. Analysis and PDE **1** (2008), no. 2, 229–266.
- T. Tao, M. Visan, and X. Zhang, *Minimal-mass blowup solutions of the mass-critical NLS*. Forum Math. **20** (2008), no. 5, 881–919.
- J. Colliander, J. Holmer, M. Visan, and X. Zhang, *Global existence and scattering for rough solutions to generalized nonlinear Schrödinger equations on  $\mathbb{R}$* . CPAA **7** (2008), no. 3, 467–489.
- T. Tao, M. Visan, and X. Zhang, *Global well-posedness and scattering for the mass-critical nonlinear Schrödinger equation for radial data in higher dimensions*. Duke Math. J. **140** (2007), no. 1, 165–202.
- T. Tao, M. Visan, and X. Zhang, *The nonlinear Schrödinger equation with combined power-type nonlinearities*. Comm. PDE **32** (2007), no. 7-9, 1281–1343.
- M. Visan and X. Zhang, *On the blowup for the  $L^2$ -critical focusing nonlinear Schrödinger equation in higher dimensions below the energy class*. SIAM J. Math. Anal. **39** (2007), no. 1, 34–56.
- M. Visan, *The defocusing energy-critical nonlinear Schrödinger equation in higher dimensions*. Duke Math. J. **138** (2007), no. 2, 281–374.
- E. Ryckman and M. Visan, *Global well-posedness and scattering for the defocusing energy-critical nonlinear Schrödinger equation in  $\mathbb{R}^{1+4}$* . Amer. J. Math. **129** (2007), no. 1, 1–60.
- M. Visan, *The defocusing energy-critical nonlinear Schrödinger equation in dimensions five and higher*. Thesis (Ph.D.) University of California, Los Angeles. 2006. 126 pp.
- M. Goldberg and M. Visan, *A counterexample to dispersive estimates for Schrödinger operators in higher dimensions*. Comm. Math. Phys. **266** (2006), no. 1, 211–238.
- T. Tao and M. Visan, *Stability of energy-critical nonlinear Schrödinger equations in high dimensions*. Electron. J. Diff. Eqns. **118** (2005), 1–28.

#### BOOKS, LECTURE NOTES, and EXPOSITORY ARTICLES:

- H. Koch, D. Tataru, and M. Visan, *Dispersive Equations and Nonlinear Waves. Generalized Korteweg-de Vries, nonlinear Schrödinger, wave and Schrödinger maps*. Oberwolfach Seminars **45**, Birkhäuser/Springer, Basel, 2014. xii+312 pp.
- R. Killip and M. Visan, *Nonlinear Schrödinger equations at critical regularity*. Evolution equations, 325–437, Clay Math. Proc., **17**, Amer. Math. Soc., Providence, RI, 2013.
- C. Mueller and M. Visan, *New Challenges in PDE: Blending Determinism and Randomness*. Emissary (the newsletter of MSRI), Fall 2015.