Monica Vişan

PERSONAL INFORMATION:

Born: August 5, 1979, in Drobeta-Tr-Severin, Romania
Citizenship: Romanian and U.S.A.
E-mail: visan@math.ucla.edu

EDUCATION AND EMPLOYMENT:

2014–   Professor at UCLA.

2011–2014   Associate Professor at UCLA.

2010–2011 Harrington Faculty Fellow at UT Austin.

2009–2011 Assistant Professor at UCLA.

2008–2009 Assistant Professor at the University of Chicago.

2006–2008 Member of the Institute for Advanced Study, Princeton.

2006   Ph.D. in Mathematics,
           University of California, Los Angeles.
           Thesis title: The defocusing energy-critical nonlinear Schrödinger
                         equation in dimensions five and higher.
           Advisor: Terence Tao.

2002   B.A. (with highest honors) in Mathematics,
           University of Bucharest, Romania.

RESEARCH INTERESTS:

Nonlinear Partial Differential Equations, Harmonic Analysis.

AWARDS, HONORS:

2012   NSF grant DMS-1161396.
2010   Kavli Fellow.
2010   Alfred P. Sloan Research Fellowship.
2009   NSF grant DMS-0901166.
2006   Clay Liftoff Fellowship.
2003   Horn-Moez Prize for Excellence in First-Year Graduate Studies (UCLA).
2002–06 Pauly Fellowship (UCLA).
2002   Dean's Award for Excellence (Univ. Bucharest).
1999–00 Erasmus Fellowship awarded by the University Tor Vergata, Rome.
1998–02 Honors Fellowship (Univ. Bucharest).
1998   Award for Excellence (Trajan College).

<div align="center">Publications:</div>

- H. Koch, D. Tataru, and M. Visan. *Dispersive Equations and Nonlinear Waves.* Oberwolfach Seminars **45**, Springer, Basel, 2014.

- R. Killip, M. Visan, and X. Zhang. *Quintic NLS in the exterior of a strictly convex obstacle.* Preprint `arxiv:1208.4904`.

- R. Killip, M. Visan, and X. Zhang. *Harmonic analysis outside a convex obstacle.* Preprint `arxiv:1205.5784`.

- R. Killip, B. Stovall, and M. Visan. *Blowup behaviour for the nonlinear Klein–Gordon equation.* Math. Ann. **358** (2014), 289–350. MR3157999

- 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), 969–986. MR3039823

- 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. *Global well-posedness and scattering for the defocusing quintic NLS in three dimensions.* Analysis and PDE **5** (2012), no. 4, 855–885. MR3006644

- 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. MR2899959

- R. Killip, B. Stovall, and M. Visan. *Scattering for the cubic Klein–Gordon equation in two space dimensions.* Trans. Amer. Math. Soc. **364** (2012), 1571–1631. MR2869186

- R. Killip and M. Visan. *The radial defocusing energy-supercritical nonlinear wave equation in all space dimensions.* Proc. Amer. Math. Soc. **139** (2011), 1805–1817. MR2763767

- R. Killip and M. Visan. *The defocusing energy-supercritical nonlinear wave equation in three space dimensions.* Trans. Amer. Math. Soc. **363** (2011), 3893–3934. MR2775831

- R. Killip, S. Kwon, S. Shao, and M. Visan. *On the mass-critical generalized KdV equation.* Discrete Contin. Dyn. Syst. **32** (2012), 191–221. MR2837059

- R. Killip and M. Visan. *Energy-supercritical NLS: critical H^s-bounds imply scattering.* Comm. PDE. **35** (2010), 945–987. MR2753625

- 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), 219–236. MR2505858

- R. Killip and M. Visan. *The focusing energy-critical nonlinear Schrödinger equation in dimensions five and higher.* Amer. J. Math. **132** (2010), 361–424. MR2654778

- 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), 229–266. MR2472890

- R. Killip, M. Visan, and T. Tao. *The cubic nonlinear Schrödinger equation in two dimensions with radial data.* J. Eur. Math. Soc. **11** (2009), 1203–1258. MR2557134

- 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), 467–489. MR2379437

- R. Killip, M. Visan, and X. Zhang. *Energy-critical NLS with quadratic potentials.* Comm. PDE. **34** (2009), 1531–1565. MR2581982

- 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), 165–202. MR2355070

- T. Tao, M. Visan, and X. Zhang. *Minimal-mass blowup solutions of the mass-critical NLS.* Forum Math. **20** (2008), 881–919. MR2445122

- 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), 34–56. MR2318374

- 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), 99–124. MR2483014

- T. Tao, M. Visan, and X. Zhang. *The Schrödinger equation with combined power-type nonlinearities.* Comm. PDE **32** (2007), 1281–1343. MR2354495

- M. Visan. *The defocusing energy-critical nonlinear Schrödinger equation in higher dimensions.* Duke Math. J. **138** (2007), 281–374. MR2318286

- 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), 1–60. MR2288737

- M. Goldberg and M. Visan. *A counterexample to dispersive estimates for Schrödinger operators in higher dimensions.* Comm. Math. Phys. **266** (2006), 211–238. MR2231971

- T. Tao and M. Visan. *Stability of energy-critical nonlinear Schrödinger equations in high dimensions.* Electron. J. Diff. Eqns. **118** (2005), 1–28. MR2174550

LECTURE NOTES:

- *Nonlinear Schrödinger equations at critical regularity.* R. Killip and M. Visan, 112pp. Prepared for the Clay Mathematics Institute Summer School, Zürich, Switzerland, 2008. To appear in Clay Mathematics Proceedings, Volume 17, 2013.

- *Lecture notes on dispersive equations.* M. Visan, 60pp. Prepared for the Oberwolfach Seminar co-organized with H. Koch and D. Tataru, Germany, 2012.

Extended Scientific Visits:

2014	Hausdorff Research Institute for Mathematics, Bonn, Germany. (July)
2011	Member of MSRI. (Jan, March)
2008	Series of lectures at Peking University, Beijing, China. (Jul)
2008	Minicourse on *Nonlinear Schrödinger equations at critical regularity* given at the Clay Mathematics Institute Summer School, Zürich, Switzerland. (Jun, Jul)
2007	Series of lectures at Kyoto University, Japan. (Mar)
2005	Member of MSRI. (Nov, Dec)

Plenaries and invited addresses:

- Young Mathematicians Conference, Ohio State University, Columbus, OH, 2011.
- AMS Fall Western Section Meeting, University of Utah, Salt Lake City, UT, 2011.

Research Talks:

- Workshop on Real Analysis, HIM, Bonn, Germany, 2014.
- Colloquium: Women Advancing Arizona Mathematics, University of Arizona, Tucson, 2014.
- Mathematical Physics Seminar, Caltech, CA, 2013.
- Spectral Theory and Partial Differential Equations: A Conference in Honor of James Ralston, UCLA, 2013.
- Evolution Equations: A Workshop in Honor of Terence Tao, Northwestern University, IL, 2012.
- Workshop on Co-compact Embeddings, Profile Decompositions, and their Applications to PDE, TIFR, Bangalore, India, 2012.
- School on Co-compact Embeddings, Profile Decompositions, and their Applications to PDE, TIFR, Bangalore, India, 2012.
- Southern California Analysis and PDE Conference, UC Irvine, CA, 2011.
- Nonlinear Dispersive Equations, Conference, ETH, Zürich, Switzerland, 2011.
- Analysis/PDE Seminar, UNC, Chapel Hill, NC, 2011.
- Colloquium, Rice University, Houston, TX, 2010.
- Analysis Seminar, UT Austin, TX, 2010.
- Colloquium, USC, Los Angeles, CA, 2010.
- Joint AMS-KMS Meeting, Seoul, Korea, 2009.
- Analysis Seminar, UT Austin, TX, 2009.
- Conférence: Ondes non-linéaires et dispersion, Institut Henri Poincaré, Paris, France, 2009.
- CAMP/Nonlinear PDEs Seminar, University of Chicago, IL, 2009.
- Fourth Chicago Area PDE Workshop, UIC, Chicago, IL, 2009.
- Analysis/PDE Seminar, UNC, Chapel Hill, NC, 2009.
- Colloquium, UCLA, 2008.

- Colloquium, Northwestern University, IL, 2008.
- Colloquium, Caltech, CA, 2008.
- Differential Equations Seminar, University of Michigan, Ann Arbor, MI, 2008.
- PDE/Analysis Seminar, UC Berkeley, 2008.
- Riviere-Fabes Symposium, University of Minnesota, MN, 2008.
- Analysis Seminar, University of Rochester, NY, 2007.
- Nonlinear Waves and Dispersive Equations, Workshop, Oberwolfach, Germany, 2007.
- Analyse des Equations aux Dérivées Partielles, Evian, France, 2007.
- Academy of Mathematics and Systems Science, Beijing, China, 2007.
- Colloquium, Kansas State University, KS, 2007.
- Midwest Partial Differential Equations Seminar, University of Kentucky, KY, 2007.
- Special Session on Nonlinear Schrödinger Equations, Winter Meeting of the Canadian Mathematical Society, Toronto, Canada, 2006.
- Global Harmonic Analysis and its Applications, Workshop, Johns Hopkins University, Baltimore, MD, 2006.
- Calderon-Zygmund Analysis Seminar, University of Chicago, IL, 2006.
- Analysis Seminar, Princeton University, NJ, 2006.
- Mathematical Physics Seminar, Caltech, CA, 2006.
- Schrödinger Evolution Equations, BIRS, Banff, Canada, 2006.
- Mathematical Physics Seminar, Caltech, CA, 2006.
- PDE Seminar, Northwestern University, IL, 2006.
- Calderon-Zygmund Analysis Seminar, University of Chicago, IL, 2006.
- Special Session on Harmonic Analysis and PDEs, AMS Meeting, Eugene, OR, 2005.
- Biweekly Seminar, MSRI, Berkeley, CA, 2005.
- Analysis/PDE Seminar, MIT, Cambridge, MA, 2005.
- Analysis Seminar, UCLA, 2005.
- Summer School on Hamiltonian Dynamics and Integrable Systems, Lake Arrowhead, CA, 2004.
- Summer School on Harmonic Analysis and Number Theory, Catalina, CA, 2003.

<div align="center">Conferences and Summer Schools Co-organized:</div>

- Special Session on "Nonlinear Dispersive Equations", AMS–RMS Joint International Meeting, Alba Iulia, Romania, June 2013.
- Southern California Analysis and PDE Conference (SCAPDE), UCLA, March 2013.
- Oberwolfach Seminar: Dispersive Equations, Oberwolfach, Germany, October 2012.
- Special Session on "Harmonic Analysis and Dispersive PDE", AMS Western Section Meeting, University of Utah, Salt Lake City, October 2011.
- Harrington Symposium, UT Austin, April 2011.
- Southern California Analysis and PDE Conference (SCAPDE), UCLA, November 2010.

- Advisory Board, Young Mathematicians Conference, 2013–