CURRICULUM VITAE

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BIRTHDATE

21 July, 1973
Iaşi, Romania

EDUCATION

Al.I.Cuza University, Iaşi, Romania, 1992-1997.
B.A. in Mathematics, 1997.

Princeton University, 1997-1998.
M.A. in Mathematics, 1998.

Princeton University, 1998-2002.
Ph.D. in Mathematics, 2002.
Thesis advisor: Sergiu Klainerman
Thesis title: "A local well-posedness result for the quasilinear wave equation in $\mathbb{R}^{2+1}$".

RESEARCH INTERESTS

- deterministic and stochastic hyperbolic equations (e.g., local well-posedness and ill-posedness, Strichartz and dispersive estimates for wave operators with rough coefficients, global smooth solutions).
- harmonic analysis (e.g. pseudodifferential and Fourier operators, restriction phenomena, oscillatory integral estimates).
- mathematics education (e.g. K-12 outreach programs, mathematics competitions (K-12 olympiads, Putnam undergraduate contest, etc.), teaching methods reform).

ACADEMIC POSITIONS

- Charles B. Morrey Assistant Professor, University of California, Berkeley, 2002-2005.
- Postdoctoral Fellow, MSRI, Berkeley, Fall Semester 2005.

- Lecturer, University of California, Berkeley, 2005-2006.
- Tenure-Track Assistant Professor, University of Rochester, 2006- .

HONORS AND AWARDS

- 2008 NSF Career Award for the research proposal "Career: Topics in Nonlinear Wave Equations", NSF Career grant DMS-0747656 (amount: $450869).
- 2007 Postdoctoral Fellowship, "Nonlinear Partial Differential Equations" Summer Microprogram, MSRI, July-August 2007.
- 2006 Mentor Recognition Award, University of California, San Diego.
- 2005 Postdoctoral Fellowship, "Nonlinear Dispersive Equations" Program, MSRI, August-December 2005.
- 2002-2005 Charles B. Morrey Assistant Professorship, University of California, Berkeley.
- 2002 Dean's Travel Fund Award, "Curvature and Dispersion Effects in Nonlinear Partial Differential Equations" Workshop, MFO Oberwolfach, Germany, April 2002.
- 2001 Dean's Travel Fund Award, "Oscillatory Integrals and Nonlinear Partial Differential Equations" Workshop, UCLA/IPAM, March 2001.
- 1998-2002 Graduate Assistantships in the Department of Mathematics, Princeton University.
- 1997-1998 Graduate Research Fellowship, The Graduate School, Princeton University.
- 1997 Diploma with Honors, Valedictorian of Class '97, Al.I.Cuza University, Iaşi, Romania.
- 1992-1997 National Merit Scholarship based on GPA, Al.I.Cuza University, Iaşi, Romania.
- 1994-1995 First Prize, National Scientific Symposiums for undergraduates, Cluj-Napoca and Iaşi, Romania.
- 1994 Stefan Banach International Mathematical Center Fellowship, Minisemester "Nonlinear Analysis and Applications", Warsaw, Poland.
- 1992 Gold Medal, Balkan Mathematical Olympiad, Athens, Greece.
- 1991 Romanian Ministry of Education Fellowship, England.
- 1989-1992 Member of the Romanian Mathematical Olympic Team.

INVITED LECTURES

- "Complex Analysis & Dynamical Systems IV", ORT Braude College, Nahariya, Israel, May 2009.
- "Non-linear hyperbolic equations and related topics" Workshop, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, September 2007.
- "Nonlinear Partial Differential Equations" Summer Microprogram, MSRI, July-August 2007.

- SIAM Conference on Analysis of Partial Differential Equations, Minisymposium on Phase Space Transforms, Numerical Methods and the Wave Equation, Boston, July 2006
- 56th Midwest PDE Seminar, University of Notre Dame, Notre Dame, December 2005.
- AMS Fall Western Section Meeting, Special Session on Partial Differential Equations with Applications, University of Oregon, Eugene, November 2005.
- FRG "Eigenfunctions of the Laplacian", University of Washington, Seattle, July 2005.
- "Nonlinear Waves and Dispersive Equations" Workshop, Institute for Mathematics, Oberwolfach, Germany, October 2004.
- Conference on Partial Differential Equations and Applications, University of Notre Dame, Notre Dame, August 2003.
- "Curvature and Dispersion Effects in Nonlinear Partial Differential Equations" Workshop, Institute for Mathematics, Oberwolfach, Germany, April 2002.
- Fifth International Congress of Algebraic Hyperstructures and Applications, Universitatea Al.I.Cuza, Iaşi, Romania, July 1993.

RESEARCH PRESENTATIONS

- Seminar: Cornell (2007), Rochester (2006-2008), MSRI (2005), Berkeley (2004-2002), Princeton (2002), Penn State (2002), Notre Dame (2001, 2000).
- Colloquium: Southern Illinois (2006), Ohio (2006), Purdue (2006), Ohio State (2006), Mills College (2006), North Carolina (2006), Colorado (2006).

PARTICIPATION IN CONFERENCES AND WORKSHOPS

- "Complex Analysis & Dynamical Systems IV", ORT Braude College, Nahariya, Israel, May 2009.
- "Non-linear hyperbolic equations and related topics" Workshop, Centro di Ricerca Matematica Ennio De Giorgi, Pisa, Italy, September 2007.
- "Nonlinear Partial Differential Equations" Summer Microprogram, MSRI, July-August 2007.
- SIAM Conference on Analysis of Partial Differential Equations, Minisymposium on Phase Space Transforms, Numerical Methods and the Wave Equation, Boston, July 2006
- AMS-MAA Joint Mathematics Meetings, San Antonio, January 2006.
- 56th Midwest PDE Seminar, University of Notre Dame, Notre Dame, December 2005.

- "Geometric and Analytical Aspects of Nonlinear Dispersive Equations" Workshop, MSRI, Berkeley, November 2005.
- AMS Fall Western Section Meeting, Special Session on Partial Differential Equations with Applications, University of Oregon, Eugene, November 2005.
- "Introductory Workshop in Nonlinear Dispersive Equations", MSRI, Berkeley, August 2005.
- FRG "Eigenfunctions of the Laplacian" Conference, University of Washington, Seattle, July 2005.
- "Mathematical Circles and Olympiads" Workshop, MSRI, Berkeley, December 2004.
- "Nonlinear Waves and Dispersive Equations" Workshop, MFO, Oberwolfach, Germany, October 2004.
- Conference on Partial Differential Equations and Applications, University of Notre Dame, South Bend, August 2003.
- "Curvature and Dispersion Effects in Nonlinear Partial Differential Equations" Workshop, MFO, Oberwolfach, Germany, April 2002.
- "Oscillatory Integrals and Nonlinear Partial Differential Equations" Workshop, UCLA/IPAM, Los Angeles, March 2001.
- "Nonlinear Analysis 2000" Conference, Courant Institute of Mathematical Sciences, New York, May 2000.
- "Nonlinear Analysis and Applications" Minisemester, Stefan Banach International Mathematical Center, Warsaw, Poland, November 1994.
- Fifth International Congress of Algebraic Hyperstructures and Applications, Universitatea Al.I.Cuza, Iaşi, Romania, July 1993.

MEMBERSHIPS

- American Mathematical Society (since 1997).
- Mathematical Association of America (since 2002).
- Senate of Al.I.Cuza University, Iaşi, Romania, 1993-1996.

TEACHING EXPERIENCE

- 2006-Present, Assistant Professor, University of Rochester.

Courses taught: MTH164 "Multidimensional Calculus", MTH165 "Linear Algebra with Differential Equations", MTH 190 "Topics in Problem Solving", MTH235 "Linear Algebra", MTH 265H "Functions of a Real Variable (Honors)", MTH565 "Introduction to Hyperbolic PDE's", MTH 565 "Topics in Nonlinear Dispersive Equations", Problem Solving Seminar.

Students mentored: Christopher Kauffman, Cheng Sun, Michael Wijaya, Philippe St Juste, Dong Suk (Virginia Tech, Putnam competition); Suresh Eswarathasan, Alejandro Gomez Henao (expository research presentation, independent reading).

- 2002-2005 Charles B. Morrey Assistant Professor/ 2005-2006 Lecturer, University of California, Berkeley.
Courses taught: MATH 104 "Introduction to Analysis", MATH 105 "A Second Course in Analysis", MATH 110 "Linear Algebra", MATH 140 "Metric Differential Geometry", MATH 185 "Introduction to Complex Analysis" (all upper-division courses).
Students mentored: David Karapetian (Putnam competition), Marcello Magno (Putnam competition, REU finalized with joint paper presented at the UCLEADS Research and Leadership Symposium), Daniel Nolan (Putnam competition, Senior thesis).
- 1998-2002 Graduate Assistant, Princeton University.
Courses taught: MAT 203 "Advanced Multivariable Calculus", random classes of MAT 317 "Complex Analysis in one variable", MAT 401 "Advanced Analysis", and MAT 519 "Nonlinear Wave Equations" (graduate course).
Students mentored: Neil Molino (Putnam competition, Senior thesis).

DEPARTMENTAL AND PROFESSIONAL ACTIVITIES

- creator and organizer of the Rochester Math Circle , 2008- .
- coordinator of undergraduate research, 2008- .
- member of the departmental Curriculum and Honors/Research committees, 2007- .
- co-organizer of the Analysis Seminar, 2006- .
- creator, organizer and main lecturer of the Problem Solving Seminar, 2006- .
- creator and organizer of the University of Rochester Math Olympiad, 2007- .
- local supervisor of the Virginia Tech Regional Mathematics Contest, the William Lowell Putnam Competition, the AMC 8-12 contests.
- co-organizer of the Colloquium Series lectures: "Invariant tori and the dynamics of Hamiltonian PDE", Walter Craig, McMaster University (2007); "Estimates for Eigenfunctions of the Laplace Operator", Christopher Sogge, Johns Hopkins University (2006).
- departmental representative: orientation and advising fair (2007), "Research Rochester" program (2006).