

Mihaela Ifrim

CONTACT INFORMATION	Department of Mathematics University of California, Berkeley Evans Hall, Office 837, Berkeley, California Zip Code: 94720-3840	ifrim@math.berkeley.edu
CITIZENSHIP	Romanian Citizen & U.S. Permanent Resident.	
RESEARCH INTERESTS	Nonlinear Dispersive Equations (water-wave equations and related dispersive models), Fluid Mechanics & Elastodynamics, Harmonic Analysis, 1-D Hyperbolic Systems of Conservation Laws, General Relativity.	
EMPLOYMENT	<ul style="list-style-type: none">- Postdoctoral Scholar - University of California at Berkeley; Department of Mathematics, January 2014 - present<ul style="list-style-type: none">• Postdoctoral Advisor: Professor Daniel Tataru- Visiting Member at Institut des Hautes Études Scientifiques (IHES), Nonlinear Waves trimester, May-July 2016- Research Member at Mathematical Sciences Research Institute (MSRI)<ul style="list-style-type: none">• New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems from August 17, 2015 - December 18, 2015• Mathematical General Relativity program, from October 1st to November 31st, 2013 (<i>on leave from McMaster</i>)- Research Member in Hausdorff Trimester Program: Harmonic Analysis and Partial Differential Equations, Bonn, Germany, May 20 - August 22, 2014.- Postdoctoral Fellow - Canada Research Chair Postdoctoral Fellowship, McMaster University, Department of Mathematics and Statistics; September 2012 - December 2013	
EDUCATION	<p>Ph.D. in Mathematics, Department of Mathematics, University of California at Davis, CA, USA, 2012</p> <ul style="list-style-type: none">• Thesis Topic: <i>Normal Form Transformations for Quasilinear Wave Equations</i>• PhD Advisor: Professor John K. Hunter	
PUBLICATIONS	<ol style="list-style-type: none">1. B. Harrop-Griffiths, M. Ifrim, and D. Tataru, Finite depth gravity water waves in holomorphic coordinates, 2016 <i>e-print</i> available at http://arxiv.org/abs/1607.02409, 20162. M. Ifrim and D. Tataru, Two dimensional gravity water waves with constant vorticity: I. Cubic lifespan, 2015 <i>e-print</i> available at http://arxiv.org/abs/1510.07732, 2015	

3. B. Harrop-Griffiths, M. Ifrim, and D. Tataru, The lifespan of small data solutions to the KP-I, 2014 *e-print* available at <http://arxiv.org/pdf/1409.4487.pdf>, to appear in *International Mathematics Research Notices*
4. M. Ifrim and D. Tataru, The lifespan of small data solutions in two dimensional capillary water waves, 2014 *e-print* available at <http://arxiv.org/pdf/1406.5471v2.pdf>, to appear in *Archive for Rational Mechanics and Analysis*
5. M. Ifrim and D. Tataru, Two dimensional water waves in holomorphic coordinates II: global solutions, *e-print* available at <http://arxiv.org/pdf/1404.7583v2.pdf>, *Bull. Soc. Math. France*, Vol. 144(2), pp. 369-394, 2016
6. M. Ifrim and D. Tataru, Global bounds for the cubic nonlinear Schrödinger equation (NLS) in one space dimension, *e-print* available at <http://arxiv.org/pdf/1404.7581v2.pdf>, *Nonlinearity*, Vol. 28(8), pp. 2661-2675, 2015
7. J. K. Hunter, M. Ifrim, and D. Tataru, Two dimensional water waves in holomorphic coordinates, *e-print* available at <http://arxiv.org/pdf/1401.1252v2.pdf>, *Comm. Math. Phys.*, Vol.346(2), pp. 483-552, 2016
8. J. K. Hunter, M. Ifrim, D. Tataru, D. T. Wang, A modified energy method proving enhanced lifespan of smooth solutions of a Burgers-Hilbert equation, *e-print* available at <http://arxiv.org/abs/1301.1947>, *Proceedings of the AMS*, Vol. 143(8), pp. 3407-3412 2015
9. J. K. Hunter, M. Ifrim, Enhanced lifespan of smooth solutions of a Burgers-Hilbert equation, *e-print* available at <http://arxiv.org/abs/1112.0813>, *SIAM Journal on Mathematical Analysis*, Vol 44(3), pp. 1279-2235, 2012
10. J. K. Hunter, M. Ifrim, A quasilinear Schrödinger equation, large amplitude inertial oscillations in a rotating shallow fluid, *IMA Journal of Applied Mathematics*, Vol. 78(4), pp. 762-776, 2013

HONORS AND AWARDS

- Clay Mathematics Institute travel award for *IHES Summer School on Nonlinear Waves*, Bures-sur-Yvette, France, July 18-29, 2016
- *William Karl Schwarze Scholarship in Mathematics*, Department of Mathematics, University of California at Davis, Spring 2010
- *Alice Leung Scholarship in Mathematics*, Department of Mathematics, University of California at Davis, Spring 2009
- *Travel Awards*, Department of Mathematics, University of California at Davis, Fall 2010, Fall 2011
- *Block Grant Fellowship*, Department of Mathematics, University of California at Davis, Fall 2008, Spring 2009, Winter 2010, Winter 2011, Spring 2011 and Winter 2012
- *Scholarship in Mathematics*, Scoala Normala Superioara (SNSB), Institute of Mathematics Simion Stoilow of the Romanian Academy, Bucharest, Fall 2006 - June 2007
- *Scholarship in Mathematics*, SMI, July 31st - September 3rd, Scuola Matematica Interuniversitaria (SMI), Perugia, Italy 2005

- *Scholarship in Mathematics*, Faculty of Mathematics and Computer Science, University of Bucharest, Bucharest, Romania, Fall 2002 - July 2006

PRESENTATIONS
AND
CONFERENCES

- The Mathematical Congress of the Americas 2017, Montreal, Canada, July 23-28, 2017 - *upcoming*
- Oberwolfach Workshop: Nonlinear Waves and Dispersive Equations, 11 June-17 June 2017 - *upcoming*
- Joint Mathematics Meetings AMS Special Session, AMS Special Session on Recent Progress on Nonlinear Dispersive and Wave Equations, January 4-7, 2017 - *upcoming*
- AMS Fall Southeastern Sectional Meeting, North Carolina State University, Raleigh, NC , November 12-13, 2016 - *upcoming*
- Theoretical and Computational Aspects of Nonlinear Surface Waves, Banff, Canada, October 30-November 4, 2016 -*upcoming*
- Analysis and PDEs Seminar, University at Paris-Nord, July 13th, 2016
- One trimester long program: Nonlinear Waves, IHES, June 9, 2016
- Nonlinear Evolution Problems, Oberwolfach Workshop, Oberwolfach, Germany, May 29 - June 4, 2016
- International Conference on Evolution Equations in conjunction with the 31st annual Shanks Lecture, Vanderbilt University, during May 16-20, 2016
- Analysis of PDE's of Fluid Mechanics Workshop, Rice University, Houston, TX, May 9 - May 11, 2016
- Colloquium, University of Southern California, California, April 25, 2016
- Analysis and PDEs Seminar, UC Santa Barbara, California, March 11, 2016
- 34th Annual Western States Mathematical Physics Meeting, Caltech, February 15 - February 15, 2016
- Special Seminar, North Carolina State University, NC State University, January 19, 2016
- Colloquium, University of Miami, Miami, January 14, 2016
- SIAM Conference on Analysis of Partial Differential Equations, Scottsdale, Arizona, December 7-10, 2015
- Colloquium, University of North Carolina at Chapel Hill, December 1, 2015
- Postdocs Seminar- MSRI associated to the program: New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems, Novem-

ber 13, 2015

- Fifth Abel Conference: Celebrating the Mathematical Impact of John F. Nash Jr. and Louis Nirenberg, IMA, Minnesota, November 02-04, 2015
- Shocks, Singularities and Oscillations in Nonlinear Optics and Fluid Mechanics, IN-DAM, Rome, Italy, September 14-15, 2015
- AMS Sectional Meeting AMS Special Session, Spring Eastern Sectional Meeting, Georgetown University, Washington, DC March 7-8, 2015
- AMS Sectional Meeting AMS Special Session, Spring Western Sectional Meeting, University of Nevada, Las Vegas, Las Vegas, NV, April 18-19, 2015
- University of California at Berkeley, Analysis and PDE Seminar, April 27, 2015.
- University of Illinois at Urbana-Champaign, Harmonic Analysis and Differential Equations, Department of Mathematics, IL, February 17, 2015
- University of California, Los Angeles, Analysis and PDE Seminar , February 13, 2015
- The University of North Carolina at Chapel Hill, Analysis Seminar, Department of Mathematics, NC, Nov 12, 2014
- Workshop: Harmonic Analysis Methods in Dispersive PDEs, Hausdorff Institute, Bonn, Germany, June 10-13, 2014
- Analysis and PDE Seminar , School of Mathematics, University of Minnesota, April 23, 2014
- AMS Meeting - Western Spring Sectional Meeting University of New Mexico, Special Session on Harmonic Analysis and Dispersive Equations, Albuquerque, NM, April 4-6, 2014
- Dynamics in Geometric Dispersive Equations and the Effects of Trapping, Scattering and Weak Turbulence, Banff, Canada, May 4-9, 2014
- Berkeley Analysis/PDE Seminar, University of California, Berkeley, November 4, 2013
- AMS Central Sectional Meeting, Washington University, St. Louis, MO, Special Session: PDEs of Fluid Mechanics, October 18-20, 2013
- PDE and Applied Math Seminar, University of California at Davis, California, Nov 19, 2013
- Oberwolfach Workshop: Nonlinear Waves and Dispersive Equations, Germany, Oberwolfach, Germany, August 11 -18, 2013
- Joint International Meeting of the AMS and the Romanian Mathematical Society, Alba Iulia, Romania, June 27-30, 2013
- AIMS Lab Seminar, McMaster University, Canada, November 12, 2012

- PDE/Analysis Seminar, McMaster University, Canada, November 9, 2012
- Student Harmonic Analysis and Differential Equations Seminar, University of California at Berkeley, January 31, 2012
- PDE and Water Waves Seminar at University of California at Berkeley, November 28, 2011
- Nonlinear Analysis, Spectrum of Nonlinear Operators, Scuola Interuniversitaria di Perugia, Italy, 2006

ACADEMIC
EXPERIENCE

Associate Instructor/Instructor

- Instructor for Math 16A - Analytic Geometry and Calculus, University of California at Berkeley, Fall 2016
- Instructor for Math 104 - Introduction to Analysis, University of California at Berkeley, Spring 2015
- Instructor for Math 185 -Complex analysis, University of California at Berkeley, Fall 2014, Spring 2016
- Instructor for MAT 2Z03 - Engineering Math III - Ordinary Differential Equations, McMaster University, September - December 2012, Summer Session 1 2013
- Associate Instructor for MAT 16B - Calculus, MAT 21C - Calculus, MAT 22B - Ordinary Differential Equations, Math. Dept., University of California at Davis, July - August 2008, 2009, 2010

Teaching Assistant

- Teaching Assistant for MAT 201A and MAT 201B (First and Second Quarter Graduate Level Analysis), Math. Dept., University of California at Davis, Fall 2008, Winter 2009, Fall 2010, Winter 2011
- Teaching Assistant for MAT 22B - Ordinary Differential Equations, Math. Dept., University of California at Davis, Winter 2010
- Teaching Assistant for MAT 21A, MAT 21B - Calculus, Math. Dept., University of California at Davis, Winter 2007, Spring 2008, Spring 2009
- Teaching Assistant for Mat 16A, Mat 16B, Mat 16C - Calculus, Math. Dept., University of California at Davis, Fall 2007, Winter 2007, Spring 2008
- Teaching Assistant for Real Analysis - First and Second College year, Faculty of Mathematics and Computer Science, University of Bucharest, Romania, Fall 2006, Spring 2007

ACADEMIC
SERVICE

- *Seminar coorganizer*: The Analysis and PDE Seminar, UC Berkeley, Fall 2014- Spring 2016
- *Graduate Program Committee Representative*-Department of Mathematics, University of California at Davis, Spring 2010 - Spring 2012