

CURRICULUM VITAE FOR NATAŠA PAVLOVIĆ AS OF SEPTEMBER 29, 2017

ADDRESS:

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EDUCATION:

Ph.D. in Pure Mathematics, July 2002, University of Illinois at Chicago
Dissertation Title: Use of Littlewood-Paley operators for the equations of fluid motion
Dissertation Advisers: Susan Friedlander and Nets Katz

M.S. in Pure Mathematics, December 1998, University of Illinois at Chicago

B.S. in Pure Mathematics, October 1996, University of Belgrade, Serbia

PROFESSIONAL EXPERIENCE:

Associate Dean Designate, College of Natural Sciences, The University of Texas at Austin, 2017 - 2018

Professor, The University of Texas at Austin, 2017 -

Eisenbud Professor at the Mathematical Sciences Research Institute in Berkeley, Fall 2015

Associate Professor, The University of Texas at Austin, 2011 - 2017

Assistant Professor, The University of Texas at Austin, 2007 - 2011

Assistant Professor, Princeton University, 2005 - 2007

Member of the Mathematical Sciences Research Institute in Berkeley, August 12 - September 10, 2005

Mathematics Instructor, Princeton University, 2004 - 2005

Member of the Institute for Advanced Study, IAS, School of Mathematics, 2003 - 2004

Mathematics Instructor, Princeton University, 2002 - 2003

Clay Prize Fellow, Clay Mathematics Institute, Special Research Project, Summer 2002

RESEARCH INTERESTS:

- Mathematical Fluid Dynamics
- Nonlinear Dispersive Equations and their derivation from many body quantum systems
- Nonlinear Kinetic Equations

CURRICULUM VITAE FOR NATAŠA PAVLOVIĆ

RESEARCH GRANTS:

Current Funding - PI: Nataša Pavlović

National Science Foundation (NSF) research Grant DMS-1516228

“Many body dynamics and nonlinear evolution PDE”

Amount: FY 2015 \$ 182,477 (+ FY 2017 \$93,048)

Project period: 09/01/2015 - 8/31/2018

Previous Funding - PI: Nataša Pavlović

National Science Foundation (NSF) research Grant DMS-1101192

“From many body quantum dynamics to nonlinear dispersive PDEs and back”

Amount: \$ 198,485

Project period: 09/15/2011 - 08/31/2015

Alfred P. Sloan Research Fellowship

Amount: \$50,000

Project period: 09/16/2008 - 09/15/2012

National Science Foundation (NSF) research Grant DMS-0758247

“On well-posedness and regularity properties for fluid equations and nonlinear dispersive equations”

Amount: \$ 126,841

Project period: 06/01/2008 - 05/31/2012

National Science Foundation (NSF) research Grant DMS-0304594

“Use of Harmonic Analysis Methods for the Equations of Fluid Motion”

Amount: \$106,786

Project period: 06/01/2003 - 5/31/2007

AWARDS AND HONORS:

- The 2016 Class of the Fellows of the AMS
- Eisenbud Professorship at the Mathematical Sciences Research Institute in Berkeley, Fall 2015.
- Frank E Gerth III Fellowship
Department of Mathematics, University of Texas at Austin, 2014-2016
- College of Natural Sciences Teaching Excellence Award
University of Texas at Austin, 2010
- John R. Durbin Teaching Excellence in Mathematics Award,
Department of Mathematics, University of Texas at Austin, 2009
- Alfred P. Sloan Research Fellowship 2008-2012
- Clay Mathematics Institute Prize Fellowship
Special Research Project, Summer 2002
- Provost’s Award for Graduate Research
University of Illinois at Chicago, Academic year 2001/2002
- University Fellowship
University of Illinois at Chicago, Academic year 2001/2002

- Viktor Twersky Memorial Scholarship Award
University of Illinois at Chicago, September 2000
- Award for Excellence in Teaching
Department of Mathematics, Statistics and Computer Science
University of Illinois at Chicago, Spring 1999

PUBLICATIONS:

Papers Submitted for Publication:

- (1) Irene Gamba, Nataša Pavlović and Maja Tasković,
On pointwise exponentially weighted estimates for the Boltzmann equation.
Submitted for publication 2017, arXiv:1703.06448.
- (2) Thomas Chen, Ryan Denlinger and Nataša Pavlović,
Local well-posedness for Boltzmann's equation and the Boltzmann hierarchy via Wigner transform
Submitted for publication 2017, arXiv:1703.00751
- (3) Dana Mendelson, Andrea Nahmod, Nataša Pavlović and Gigliola Staffilani
An infinite sequence of conserved quantities for the cubic Gross-Pitaevskii hierarchy on \mathbb{R}
Submitted for publication 2017, arXiv:1612.09236

Refereed Articles in Journals:

- (4) Andrea R. Nahmod, Nataša Pavlović, Gigliola Staffilani and Nathan Totz,
Global flows with invariant measures for the modified SQG equation on \mathbb{T}^2 .
Stochastics and Partial Differential Equations: Analysis and Computations, to appear (2017).
- (5) Maja Tasković, Ricardo Alonso, Irene Gamba and Nataša Pavlović,
On Mittag-Leffler moments for the Boltzmann equation for hard potentials without cutoff.
SIAM Journal on Mathematical Analysis, to appear (2017).
- (6) Thomas Chen, Younghun Hong and Nataša Pavlović,
On the scattering problem for infinitely many fermions in dimensions $d \geq 3$ at positive temperature.
Ann. Inst. H. Poincaré Anal. Non Linéaire, online first (2017)
- (7) Thomas Chen, Younghun Hong and Nataša Pavlović,
Global Well-posedness of the NLS System for infinitely many fermions.
Archive for Rational Mechanics and Analysis **224**, No. 1 (2017), 91–123.
- (8) Thomas Chen, Christian Hainzl, Nataša Pavlović, and Robert Seiringer,
Unconditional uniqueness for the cubic Gross-Pitaevskii hierarchy via quantum de Finetti.
Commun. Pure Appl. Math. **68**, No. 10 (2015), 1845–1884.
- (9) Thomas Chen, Christian Hainzl, Nataša Pavlović, and Robert Seiringer,
On the well-posedness and scattering for the Gross-Pitaevskii hierarchy via quantum de Finetti.
Lett. Math. Phys. **104**, No. 7 (2014), 871–891.
- (10) Thomas Chen and Nataša Pavlović,
Derivation of the cubic NLS and Gross-Pitaevskii hierarchy from manybody dynamics in $d = 2, 3$ based on spacetime norms.
Ann. H. Poincaré **15**, No. 3 (2014), 543–588.

- (11) Thomas Chen and Nataša Pavlović,
Higher order energy conservation and global wellposedness of solutions for Gross-Pitaevskii hierarchies.
Comm. Partial Differential Equations **39**, No. 9 (2014), 1597–1634.
- (12) Andrea R. Nahmod, Nataša Pavlović and Gigliola Staffilani,
Almost sure existence of global weak solutions for super-critical Navier-Stokes equations.
SIAM Journal on Mathematical Analysis **45**, No. 6 (2013), 3431–3452.
- (13) Aynur Bulut, Magdalena Czubak, Dong Li, Nataša Pavlović and Xiaoyi Zhang,
Stability and Unconditional Uniqueness of Solutions for Energy Critical Wave Equations in High Dimensions.
Comm. Partial Differential Equations **38**, No. 4 (2013), 575–607.
- (14) Thomas Chen and Nataša Pavlović,
A new proof of existence of solutions for focusing and defocusing Gross-Pitaevskii hierarchies.
Proceedings of AMS **141** (2013), 279–293.
- (15) Thomas Chen, Nataša Pavlović and Nikolaos Tzirakis,
Multilinear Morawetz identities for the Gross-Pitaevskii hierarchy.
Contemporary Mathematics **581** (2012), 39–62.
- (16) Thomas Chen and Nataša Pavlović,
A lower bound on blowup rates for the 3D incompressible Euler equation and a single exponential Beale-Kato-Majda type estimate.
Communications in Mathematical Physics **314**, No. 1 (2012), 265–280.
- (17) Thomas Chen and Nataša Pavlović,
The quintic NLS as the mean field limit of a Boson gas with three-body interactions.
Journal of Functional Analysis, **260**, No. 4 (2011), 959–997.
- (18) Thomas Chen, Nataša Pavlović and Nikolaos Tzirakis,
Energy conservation and blowup of solutions for focusing Gross-Pitaevskii hierarchies.
Annales de l'Institut Henri Poincaré (C) / Analyse non linéaire **27**, No. 5 (2010), 1271–1290.
- (19) Thomas Chen and Nataša Pavlović,
Recent results on the Cauchy problem for focusing and defocusing Gross-Pitaevskii hierarchies.
Math. model. nat. phenom. **5**, No. 4 (2010), 54–72.
- (20) Thomas Chen and Nataša Pavlović,
On the Cauchy problem for focusing and defocusing Gross-Pitaevskii hierarchies.
Discrete and Continuous Dynamical Systems - Series A **27**, No. 2 (2010), 715–739.
- (21) Alexey Cheskidov, Susan Friedlander and Nataša Pavlović,
An inviscid dyadic model of turbulence: the global attractor.
Discrete and Continuous Dynamical Systems - Series A **26**, No. 3 (2010), 781–794.
- (22) Susan Friedlander, Nataša Pavlović and Vlad Vicol,
Nonlinear Instability for the Critically Dissipative Quasi-Geostrophic Equation.
Communications in Mathematical Physics **292**, No. 3 (2009), 797–810.

- (23) Hongjie Dong and Nataša Pavlović,
Regularity criteria for the dissipative quasi-geostrophic equations in Holder spaces.
Communications in Mathematical Physics **290**, No. 3 (2009), 801–812.
- (24) Hongjie Dong and Nataša Pavlović,
A regularity criteria for the dissipative quasi-geostrophic equations.
Annales de l’Institut Henri Poincaré (C) / Analyse non linéaire **26**, No. 5 (2009), 1607-1619.
- (25) Jean Bourgain and Nataša Pavlović,
Ill-posedness of the Navier-Stokes equations in a critical space in 3D.
J. Funct. Anal. **255**, No. 9 (2008), 2233–2247.
- (26) Daniela De Silva, Nataša Pavlović, Gigliola Staffilani and Nikolaos Tzirakis,
Correction to Global well-posedness and polynomial bounds for the defocusing L^2 -critical nonlinear Schrödinger equation in \mathbb{R} .
Communications in PDE **36**, No. 2 (2011), 293–303.
- (27) Daniela De Silva, Nataša Pavlović, Gigliola Staffilani and Nikolaos Tzirakis,
Global well-posedness and polynomial bounds for the defocusing L^2 -critical nonlinear Schrödinger equation in \mathbb{R} .
Communications in PDE **33**, No. 8 (2008), 1395–1429.
- (28) Daniela De Silva, Nataša Pavlović, Gigliola Staffilani and Nikolaos Tzirakis,
Global well-posedness for the L^2 -critical nonlinear Schrödinger equation in higher dimensions.
Communications on Pure and Applied Analysis **6**, No. 4 (2007), 1023–1041.
- (29) Pierre Germain, Nataša Pavlović and Gigliola Staffilani,
Regularity of solutions to the Navier-Stokes equations evolving from small data in BMO^{-1} .
Int. Math. Res. Notices **21**, (2007), article ID rnm087, 35 pages.
- (30) Alexey Cheskidov, Susan Friedlander and Nataša Pavlović,
An inviscid dyadic model of turbulence: the fixed point and Onsager’s conjecture.
Journal of Mathematical Physics **48**, No. 6 (2007), 065503-1–065503-16.
- (31) Daniela De Silva, Nataša Pavlović, Gigliola Staffilani and Nikolaos Tzirakis,
Global well-posedness for a periodic nonlinear Schrödinger equation in 1D and 2D.
Discrete and Continuous Dynamical Systems - Series A **19**, No. 1 (2007), 37–65.
- (32) Susan Friedlander, Nataša Pavlović and Roman Shvydkoy,
Nonlinear instability for the Navier-Stokes equations.
Communications in Mathematical Physics **264**, No. 2 (2006), 335–347.
- (33) Nets Hawk Katz and Nataša Pavlović,
Finite time blow-up for a dyadic model of the Euler equations.
Transactions of AMS **357**, No. 2 (2005), 695-708.
- (34) Susan Friedlander and Nataša Pavlović,
Blow up in a three dimensional vector model for the Euler equations.
Communications on Pure and Applied Mathematics **57**, No. 6 (2004), 705-725.
- (35) Susan Friedlander and Nataša Pavlović,
Remarks concerning modified Navier-Stokes equations.
Discrete and Continuous Dynamical Systems - Series A **10** (2004), 269-288.

- (36) Nataša Pavlović,
Bounds for sums of powers of eigenvalues of Schrödinger operators via the commutation method.
 Advances in Differential Equations and Mathematical Physics (Birmingham, AL, 2002)
 Contemporary Mathematics **327** (2003), 271–281.
- (37) Nets Hawk Katz and Nataša Pavlović,
A cheap Caffarelli-Kohn-Nirenberg inequality for the Navier-Stokes equation with hyper-dissipation.
 Geometric and Functional Analysis **12**, No. 2 (2002), 355–379.

Articles in Proceedings:

- (38) Nataša Pavlović,
On the exponential-like moments of the Boltzmann equation without cutoff.
 Oberwolfach reports **37** (2015), 29–32.
- (39) Nataša Pavlović,
Regularity of solutions to the Navier-Stokes equations evolving from small initial data in a critical space.
 Oberwolfach reports **27** (2008), 1508–1511.
- (40) Nataša Pavlović,
On global well-posedness for defocusing L^2 -critical NLS in 1D.
 Oberwolfach reports **44** (2007), 2633–2637.
- (41) Susan Friedlander and Nataša Pavlović,
Dyadic models for the equations of fluid motion.
 Proceedings of the Mathematical Sciences Research Institute (MSRI) conference on “Women in Mathematics: The Legacy of Ladyzhenskaya and Oleinik”, (2006), 51–64.
- (42) Nataša Pavlović,
On the paper by Beale-Kato-Majda and the paper by Kozono-Taniuchi.
 Proceedings of the summer school on “Fluid dynamics”, Asilomar, CA, June 17–22, 2001.
- (43) Nataša Pavlović,
On the paper of Benguria and Loss.
 Proceedings of the summer school on “Spectral theory of one-dimensional Schrödinger operators”, Lake Arrowhead, CA, September 10–15, 2000.

Book Reviews:

- (44) Charles Fefferman and Robert Fefferman, With contributions from Paul Hagelstein, Nataša Pavlović and Lillian Pierce,
Princeton lectures in analysis [book reviews of MR1970295, MR1976398, MR2129625, MR2827930].
 Notices Amer. Math. Soc. 59 (2012), No. 5, 641–647.

INVITED LECTURES:

2018

“Linear and Nonlinear Wave Phenomena: Stability, Propagation of Regularity and Turbulence”, Cortona, Italy, September 10 - 14, 2018.

Plenary speaker at “The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications”, Taipei, Taiwan, July 5 - 9, 2018.

Plenary lecture at The Sixth Annual Meeting of the Australian and New Zealand Association of Mathematical Physics, Auckland, New Zealand, January 30 - February 1 2018.

2017

“Kinetic Equations: Modeling, Analysis, and Numerics”, University of Texas at Austin, September 18 - 22, 2017.

79/80th Midwest PDE Seminar, University of Illinois at Chicago, September 14 - 17, 2017.

Mini course consisting of six one hour lectures at the Summer School on “Nonlinear dispersive PDE, quantum many particle systems and the world between”, Istituto Nazionale di Alta Matematica, Cortona, Italy, July 17 - 28, 2017.

French-American Conference on Nonlinear Dispersive PDEs,
Centre International De Rencontres Mathématiques, Marseille, France, June 12 - 16, 2017.

Colloquium, Rice University, April 2017.

2016

Applied Math and Analysis Seminar, Duke University, December 2016.

Focused Research Group Conference at MIT
Cambridge, MA, September 9 - 11, 2016.

The IHES “Nonlinear Waves 2016: Summer School”
Institut des Hautes Études Scientifiques, Bures-sur-Yvette, France, July 18-29, 2016.

The AIM workshop “Mixing and nonlinear stability”
American Institute of Mathematics, San Jose, CA, April 11-15, 2016.

2015

Special session on “Transport Theory in Complex Particle Systems”
SIAM Conference on Analysis of Partial Differential Equations (PD15),
Scottsdale, AZ, December 7-10, 2015.

Center for Applied Mathematical Sciences Colloquia,
University of Southern California, November 2015.

A research mini-course at the Introductory Workshop: Randomness and long time dynamics in non-linear evolution differential equations, MSRI, Berkeley, CA, August 24-28, 2015

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Oberwolfach Workshop “Mathematical Aspects of Hydrodynamics”, August 9-15, 2015.

The Focus Week on Nonlinear Wave equations and their numerical study,
The Fields Institute, Toronto, Canada, June 22-26, 2015.

Workshop for Women in Analysis and PDE,
The Institute for Mathematics and its Applications, Minneapolis, MN, May 28-31, 2015

Faculty Colloquium, University of Texas at Austin, February 2015

Special SIAM session on “PDEs and Applications”, Joint Mathematics Meeting 2015, San Antonio, TX, January 10, 2015

2014

Applied Mathematics Seminar, University of Illinois at Chicago, November 2014

Graduate Student Seminar, University of Illinois at Chicago, November 2014

Exploratory Seminar “Randomness and Long-Time Dynamics in Nonlinear Evolution Differential Equations”, The Radcliffe Institute, Boston, MA, October 31 - November 2, 2014

Special Session “Mathematical aspects of fluid dynamics”,
The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications, Madrid, Spain, July 7-11, 2014.

BIRS workshop “Dynamics in Geometric Dispersive Equations and the Effects of Trapping, Scattering and Weak Turbulence”, Banff, Canada, May 4-9, 2014.

A plenary talk at “30th Southeastern Analysis Meeting”,
Clemson University, March 7-8, 2014.

2013

Special session on “Dynamics of nonlinear dispersive wave equations”,
SIAM conference on Analysis of Partial Differential Equations,
Lake Buena Vista, FL, December 7-10, 2013.

Analysis Seminar, University of North Carolina, Chapel Hill, November 2013

PDE-Applied Math Seminar, University of Maryland, November 2013

KI-NET UT Austin workshop, October 7-8, 2013

FRG Workshop “Recent Advances in PDEs and Fluids”,
Stanford University, August 16-18, 2013

NSF-CBMS Regional Research Conference in the Mathematical Sciences,
Kansas State University, June 17-21, 2013

Special session on “Analysis of Dynamics of the Incompressible Fluids”,
AMS 2013 Spring Western Sectional Meeting, Boulder, CO, April 13-14, 2013

2012

Geometry-Analysis Seminar, Rice University, February 2012

The Special Colloquium, George Washington University, January 2012

2011

Special session on “Recent Progress on Dispersive Partial Differential Equations”,
SIAM Conference on Analysis of Partial Differential Equations,
San Diego, November 14-17, 2011.

Special session on “Nonlinear Wave Phenomena”,
AWM Anniversary Conference at ICERM
“40 Years and Counting: AWM’s Celebration of Women in Mathematics”,
Providence, September 17-18, 2011

A course at the RTG Summer School on Analysis, PDEs and Mathematical Physics,
Course title “The enigma of the equations of fluid motion: a survey of existence and regularity results”,
University of Texas at Austin, July 18 - July 25, 2011

2011 ICIAM Satellite Meeting “Applied Analysis and Applied PDEs”,
University of Victoria, July 12-15, 2011

“Nonlinear PDEs” workshop, Lisbon, Portugal, June 20-24, 2011

2010

Analysis Seminar, Princeton University, November 2010

Colloquia, University of Southern California, October 2010

Special session on “Applications of Nonlinear PDE ”,
AMS 2010 Fall Western Section Meeting, Los Angeles, CA, October 9-10, 2010

Special session on “Harmonic Analysis and Partial Differential Equations”,
AMS 2010 Spring Western Section Meeting, Albuquerque, NM, April 17-18, 2010

Special session on “Dyadic and Nondyadic Harmonic Analysis”,
AMS 2010 Spring Western Section Meeting, Albuquerque, NM, April 17-18, 2010

IMA Workshop “Analysis and Computation of Incompressible Fluid Flow”, February 2010

MIT Women in Mathematics Lecture Series, January 2010

2009

Special Session on “The Many Aspects of Fluids”,
SIAM Conference on Analysis of Partial Differential Equations, Miami, Florida, December 7-10, 2009

RIMS Workshop “ Nonlinear Dispersive Equations”,
Kyoto University, Japan, November 27, 2009

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RIMS Workshop “Well-posedness and Scattering for Nonlinear Dispersive and Wave Equations”, Hokkaido University, Japan, November 23–25, 2009

PDE Seminar, University of Houston, November 2009

Math Club Talk, University of Texas at Austin, November 2009

Mathematical Physics Seminar, University of Texas at Austin, October 2009

BIRS workshop “Analysis of nonlinear wave equations and applications in engineering”, Banff, Canada, August 9 - 14, 2009

Oberwolfach Workshop “Mathematical Aspects of Hydrodynamics”, July 19-25, 2009

Joint Numerical Analysis/Applied Mathematics Seminar, Texas A & M University, May 2009

PDE seminar, Brown University, April 2009

Special session on “Nonlinear Dispersive Equations”, AMS 2009 Spring Western Section Meeting, San Francisco, CA, April 25-26, 2009

Special session on “Nonlinear Partial Differential Equations”, AMS 2009 Spring Western Section Meeting, San Francisco, CA, April 25-26, 2009

Calderon-Zygmund Analysis Seminar, University of Chicago, April 2009

Joint Analysis and Mathematical Physics seminar, University of Texas at Austin, April 2009

Special session on “Nonlinear Partial Differential Equations and Applications”, AMS 2009 Spring Central Sectional Meeting, Urbana, IL, March 27-29, 2009

2008

Colloquium, University of California, Santa Cruz, November 2008

Invited course lecturer at the Summer Program in Princeton, Course title “Introduction to the Equations of Fluid Motion”, Princeton University, July 28 - August 15, 2008

Special session on “Nonlinear fluid equations: dissipated energies and equilibration”, SIAM Conference on “Nonlinear Waves and Coherent Structures”, Rome, Italy, July 21-24, 2008

Oberwolfach Workshop “Nonlinear Evolution Equations”, June 15-21, 2008

Special session on “Fluids and Turbulence”, 7th AIMS International Conference on Dyn. Systems, Diff. Equations and Applications, Arlington, TX, May 18 - 21, 2008

Special session on “Harmonic Analysis Methods in Mathematical Fluid Dynamics”, AMS 2008 Spring Central Section Meeting, Bloomington, IN, April 5-6, 2008

Analysis seminar, University of Southern California, February 2008

2007

Special Session on “The Euler and Navier-Stokes Equations”, AMS 2007 Fall Central Section Meeting, Chicago, IL, October 5-6, 2007

Mathematics Physics seminar, University of Texas at Austin, September 2007

Oberwolfach Workshop “Nonlinear Waves and Dispersive Equations”, September 9-15, 2007

Journées Équations aux Dérivées Partielles, Evian, France, June 4-8, 2007

Geometry and Analysis Seminar, Columbia University, April 2007

Invited address at the AMS 2007 Spring Eastern Section Meeting, Hoboken, NJ, April 15-16, 2007

JAMI workshop “Nonlinear Dispersive Equations”, Johns Hopkins University, March 14-18, 2007

Ergodic Theory and Statistical Mechanics Seminar, Princeton University, March 2007

Analysis seminar, University of Texas at Austin, February 2007

Colloquium, University of Massachusetts Amherst, February 2007

Colloquium, University of California, Irvine, January 2007

Colloquium, University of California, Santa Barbara, January 2007

2006

Special Session on “Nonlinear Schrödinger Equations”
Winter 2006 Meeting of the Canadian Mathematical Society, December 9-11, 2006

Analysis Seminar, Johns Hopkins University, November 2006

Harmonic Analysis and Mathematical Physics Seminar, University of Illinois, Urbana, October 2006

Satellite Conference on Analysis
“Harmonic and Geometrical Analysis with Applications to Partial Differential Equations”,
Seville, August 14 - 18, 2006

AWM and MSRI workshop “Women in Mathematics: the legacy of Ladyzhenskaya and Oleinik”,
MSRI, Berkeley, May 18-20, 2006

Analysis Seminar, Cornell University, April 2006

Joint MIT/Harvard Analysis Seminar, April 2006

Special Session on “Nonlinear Waves”, AMS 2006 Spring Southeastern Section Meeting,
Miami, FL, April 1-2, 2006

International Conference in honor of Yakov G. Sinai on the occasion of his 70th birthday,
University of Maryland, March 18-21, 2006

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Analysis Seminar, Brown University, March 2006

Mathematics and Statistics Colloquium, Arizona State University, February 2006

2005

Focused Research Group Seminar, University of Missouri, Columbia, November 2005

Mathematical Physics Seminar, Rutgers, October 2005

MSRI Fluid Dynamics Workshop, MSRI, Berkeley, October 12, 2005

MSRI Members Seminar, September 2005

Calderón-Zygmund Analysis Seminar, University of Chicago, June 2005

8th Riviere-Fabes Symposium on Analysis and PDE, University of Minnesota, April 2005

American Institute of Mathematics workshop
“Deterministic and Stochastic Navier-Stokes Equations”, Palo Alto, March 2005

Applied Math/PDE/Analysis Seminar, University of Toronto, February 2005

2004

AWM Seminar, University of Illinois at Chicago, November 2004

Applied Mathematics and Analysis Seminar at Duke, October 2004

Special Session on Multiscale Methods and Sampling in Time-Frequency Analysis
AMS 2004 Fall Western Section Meeting, Albuquerque, October 2004

AIMS International Conference on Dynamical Systems and Differential Equations, Pomona, June 2004

Analysis Seminar, Caltech, April 2004

Analysis and PDE Seminar, Institute for Advanced Study, Princeton, February 2004

2003

Joint PDE and Dynamical Systems Seminar, University of Minnesota, Minneapolis, December 2003

Applied Math Colloquium, Penn State University, December 2003

Ergodic Theory and Statistical Mechanics Seminar, Princeton University, November 2003

Analysis Seminar, University of Wisconsin, Madison, November 2003

PDE Seminar, Indiana University, Bloomington, November 2003

IAS Postdoctoral Members Seminar, October 2003

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Session on Classical and Harmonic Analysis

First Joint Mathematical International Meeting AMS - RSME, Seville, Spain, June 2003

Analysis Seminar, University of California Los Angeles, May 2003

51st Midwest Partial Differential Equations Seminar, University of Illinois at Chicago, April 2003

2002

Analysis Seminar, Princeton University, October 2002

The 2002 International Conference on Differential Equations and Mathematical Physics
Birmingham, Alabama, March 2002

Mathematics and Applications Seminar, University of Illinois at Chicago, March 2002

PDE Seminar, Northwestern University, January 2002

Analysis Seminar, Johns Hopkins University, January 2002

Analysis Seminar, Cornell University, January 2002

Special Seminar, Brown University, January 2002

2001

Session on Harmonic Analysis and PDEs

AMS 2001 Fall Western Section Meeting, Irvine, CA, November 2001

Analysis Seminar, Washington University at St. Louis, November 2001

Session on Mathematical fluid dynamics, First Joint Mathematical International Meeting AMS - SMF
Ecole Normale Supérieure de Lyon, France, July 2001

Summer School on fluid dynamics, Asilomar conference ground, Monterey CA, June 2001

Analysis Seminar, Princeton University, May 2001

Applied Mathematics Seminar, Yale University, April 2001

PDE Seminar, Northwestern University, April 2001

Analysis Seminar, University of California Los Angeles, February 2001

2000

Summer School on spectral theory of 1D Schrödinger operators

Lake Arrowhead, UCLA conference center, September 2000

1999

Analysis and Fluid Dynamics Seminar, University of Illinois at Chicago, August & September 1999

MENTORING ACTIVITIES:

PhD Students:

- Ioakeim Ampatzoglou, University of Texas at Austin, 2017 -
- Matthew Rosenzweig, University of Texas at Austin, 2017 -
- Maja Taskovic, PhD University of Texas at Austin, 2016.
Co-advised with: Irene Gamba
Dissertation title: “Mittag-Leffler moments and weighted L^∞ estimates for solutions to the Boltzmann equation for hard potentials without cutoff”,
First position: Hans Rademacher Instructor of Mathematics at the University of Pennsylvania
- Zhihui Xie, PhD University of Texas at Austin, 2014
Dissertation title: “From quantum many body systems to nonlinear Schrödinger equations”,
First position: Postdoc at the University of Illinois at Chicago
Current position: Research Engineer at Yahoo, CA
- Aynur Bulut, PhD University of Texas at Austin, 2011
Co-advised with: William Beckner
Dissertation title: “Global well-posedness and scattering for the defocusing energy-supercritical cubic Nonlinear Wave Equation”,
First position: Member at the Institute for Advanced Study, Princeton
Current position: Assistant Professor at Louisiana State University

Postdoctoral Scholars:

- Ryan Denlinger, University of Texas at Austin, 2016 - 2019
PhD: New York University 2016
- Nathan Tutz, MSRI, Berkeley, Fall 2015.
PhD: University of Michigan, Ann Arbor 2011
Current position: Assistant Professor at University of Miami
- Younghun Hong, University of Texas at Austin, 2013 - 2016.
PhD: Brown University, 2013
Current position: Postdoctoral researcher in CMAC at Yonsei University, Korea

TEACHING EXPERIENCE:

University of Texas at Austin: Fall 2007 - present

Instructor for:

- Spring 2017: Graduate course “Partial differential equations II” and three reading courses
- Fall 2016: Calculus M 408 C (teaching 2 sections) and three reading courses
- Spring 2016: Graduate prelim course “Methods of Applied Mathematics II”
- Spring 2015: Theory of functions of a complex variable
- Fall 2014: Theory of functions of a complex variable (teaching 2 sections)
- Spring 2014: Graduate course “Partial differential equations II”
- Fall 2013: Theory of functions of a complex variable (teaching 1 section)
- Spring 2013: Graduate course “Partial differential equations II”
- Fall 2011: Graduate course “Partial differential equations I”
- Spring 2011: Matrices and matrix calculations M 340L (teaching 1 section)
- Fall 2010: Theory of functions of a complex variable (teaching 1 section)
- Spring 2010: Graduate course on “Nonlinear dispersive equations”

- Fall 2009: Theory of functions of a complex variable (teaching 1 section)
- Spring 2009: Theory of functions of a complex variable (teaching 1 section)
- Fall 2008: Matrices and matrix calculations M 340L (teaching 1 section)
- Spring 2008: Theory of functions of a complex variable (teaching 1 section)
- Fall 2007: Matrices and matrix calculations M 340L (teaching 1 section)

Princeton University: Fall 2002 - Spring 2003, Fall 2004 - Spring 2007

Instructor for:

- Spring 2007: Linear algebra MAT 202 (teaching 1 section)
- Fall 2006: Complex analysis MAT 331
- Fall 2005: Calculus MAT 103 (teaching 2 sections and coordinating the course)
- Spring 2005: Linear algebra MAT 202 (teaching a regular class and organizing/teaching the review session)
- Fall 2004: Calculus MAT 103 (teaching a regular class and organizing/teaching the review session)
- Spring 2003: Calculus MAT 104 (teaching 2 sections)
- Fall 2002: Calculus MAT 103 (teaching 2 sections)

University of Illinois at Chicago: Fall 1997 - Spring 2002

Teaching Assistant for:

- Intermediate Algebra
- Precalculus
- Calculus
- Ordinary Differential Equations

Instructor for:

- Intermediate Algebra

University of Belgrade: Fall 1996 - Summer 1997

Teaching Assistant for:

- Linear Algebra and Basics of Abstract Algebra
- Real Analysis

Teaching at Special Programs:

Co-organizer and an instructor at the MSRI Summer Graduate School on “Nonlinear dispersive PDE, quantum many particle systems and the world between”, Istituto Nazionale di Alta Matematica, Cortona, Italy, July 17 - 28, 2017

Designed and delivered a Research Mini-course at the Introductory Workshop: “Randomness and long time dynamics in nonlinear evolution differential equations”, MSRI, Berkeley, CA, August 24-28, 2015

Co-organizer and an instructor at the MSRI Summer Graduate School on “Dispersive Partial Differential Equations”, MSRI, Berkeley, CA, June 16-27, 2014

Co-organizer and an instructor at the RTG Summer School on Analysis, PDEs and Mathematical Physics, Course title “The enigma of the equations of fluid motion: a survey of existence and regularity results”, University of Texas at Austin, July 18-29, 2011

Instructor at the Summer Program in Princeton, Course title “Introduction to the Equations of Fluid Motion” Princeton University, July 28 - August 15, 2008

PROFESSIONAL SERVICE AT THE NATIONAL LEVEL

Professional Committees:

- Elected Member at Large of the American Mathematical Society (AMS) Council, 2013-2016
- Member of the AMS Committee on Meetings and Conferences, 2013-2016
- Member of the AMS Committee on Committees, 2011 - 2013

Conference/workshop Program Committees:

- *Co-organizer* of the session “Nonlinear Evolution Equations” at “The 12th AIMS Conference on Dynamical Systems, Differential Equations and Applications”, Taipei, Taiwan, July 5 - 9, 2018.
- *Co-organizer and an instructor at the MSRI Summer Graduate School on “Nonlinear dispersive PDE, quantum many particle systems and the world between”*, Istituto Nazionale di Alta Matematica, Cortona, Italy, July 17 - 28, 2017
- *Co-organizer* of the ICERM Topical workshop “Current Developments in Mathematical Fluid Dynamics: Regularity, Instabilities, and Turbulence”, The Institute for Computational and Experimental Research in Mathematics, Providence, RI, January 24-27, 2017
- *Co-organizer* of the Minisymposium “Transport Theory in Complex Particle Systems” SIAM Conference on Analysis of Partial Differential Equations (PD15), December 7-10, 2015
- *Co-organizer and an instructor at the MSRI Summer Graduate Workshop on “Dispersive Partial Differential Equations”*, MSRI, Berkeley, CA, June 16-27, 2014
- *Co-organizer and an instructor at the RTG Summer School on Analysis, PDEs and Mathematical Physics*, Course title “The enigma of the equations of fluid motion: a survey of existence and regularity results”, University of Texas at Austin, July 18-29, 2011
- Co-organizer of the special session on “Harmonic Analysis and Partial Differential Equations”, American Mathematical Society (AMS) 2009 Fall Central Section Meeting, Baylor University, Waco, TX, October 16-18, 2009
- Member of the organizing committee of “Introductory Workshop in Nonlinear Dispersive Equations”, Mathematical Sciences Research Institute (MSRI), Berkeley, CA, August 22-26, 2005
- Organizer of Research Seminar at the Program for Women in Mathematics, Institute for Advanced Study (IAS), Princeton, NJ, May 2004

Editorial Work:

- *Associate Editor* at the SIAM Journal on Mathematical Analysis, 2015 -
- *Member of the Editorial Board* of Theoretical and Applied Mechanics (published jointly with the Mathematical Institute of the Serbian Academy of Sciences and Arts), 2015 -

Journal Reviewing:

- Annals of Mathematics
- American Journal of Mathematics
- Archive for Rational Mechanics and Analysis
- Bulletin of AMS
- Communications in Mathematical Physics

- Communications in Partial Differential Equations
- Differential and Integral Equations
- Dynamics of PDE
- International Mathematics Research Notices
- Journal of Differential Equations
- Journal of the European Mathematical Society
- Journal of Functional Analysis
- Mathematical Research Letters
- Mathematische Annalen
- Mathematische Zeitschrift
- New York Journal of Mathematics
- Nonlinearity
- Proceedings of AMS
- Revista Matemática Iberoamericana
- Transactions of AMS

Grant Proposal Reviewing:

- Member of the National Science Foundation review panels
2009, 2010, 2012, 2016, 2017

Service on Advisory Boards

- Committee of Visitors review of the National Science Foundation, Division of Mathematical Sciences, NSF, Washington DC, September 19-21, 2016

SERVICE AT THE UNIVERSITY OF TEXAS AT AUSTIN:

University

Member of the Steering Committee of the U.T. Faculty Women's Organization, 2017

Panelist at the "Tenure and Promotion Panel", April 18, 2017

College of Natural Sciences:

Associate Dean Designate for Faculty Affairs, 2017/18

Member of the CNS Teaching Award Committee, 2017/18

Member of the CNS Diversity and Inclusion Committee, 2016/17

Department of Mathematics:

Member and co-chair of Chair Committee, 2017

Assistant Graduate Adviser: 2011 - 2016

Member of the Appointments Committee: 2009/10, 2010/11, 2016/17 (chair of the committee)

Member of the Postdoctoral Hiring Committee: 2008/09, 2015/16

Member of Annual Review Committee: Fall 2014

Member of the Honors Program Review Committee, Spring 2014

CURRICULUM VITAE FOR NATAŠA PAVLOVIĆ

Member of the Search Committee for the new Graduate Coordinator, August 2014

Member of the Committee on Voting Procedures, Spring 2013

Member and Chair of the Review Committee for Non-tenure Stream Faculty, Fall 2012

Member of the Analysis Preliminary Exam Committee: Fall 2010, January 2012, January 2015

Member of the Applied Mathematics Preliminary Exam Committee, August 2016, January 2017

Member of the Graduate Admissions Committee: 2009/10, 2014/15, 2015/16

Member of the Graduate Review Committee, 2009

Co-organizer of Analysis Seminar, 2007 - Present

Member of RLM 12.104 Renovation Committee, 2010-2012

Member of Candidacy Committee for:

- Logan Stokols (Fall 2016)
- Marjorie Drake (Fall 2016)
- Matthew Novak (Spring 2016)
- Maja Taskovic (Spring 2013)
- William Carlson (Spring 2012)
- Zhihui Xie (Fall 2011)
- Kenneth Taliaferro (Summer 2011)
- Michael Kelly (Spring 2011)
- Verónica Quítalo (Fall 2010)
- Eric Baer (Fall 2009)
- Daniel Blazevski (Spring 2009)
- Mark Lewko (Fall 2008)
- Aynur Bulut (Spring 2008)
- Jacob Glenn-Levin (Spring 2008)

Member of the dissertation committee for:

- Logan Stokols
- Matthew Novak
- Hui Yu (PhD 2017)
- Sona Akopian (PhD 2017)
- Maja Taskovic (PhD 2016)
- Pulak Goswami (PhD 2016)
- Dustin Eldon Lorshbough (PhD 2016)
- Josh Hebert (PhD 2015)
- William Carlson (PhD 2015)
- Kenneth Taliaferro (PhD 2015)
- Zhihui Xie (PhD 2014)
- Michael Kelly (PhD 2014)
- Verónica Quítalo (PhD 2013)
- Gonzalo Dávila (PhD 2012)
- Kyudong Choi (PhD 2012)
- Eric Baer (PhD 2012)
- Daniel Blazevski (PhD 2012)
- Jacob Glenn-Levin (PhD 2012)
- Mark Lewko (PhD 2012)

CURRICULUM VITAE FOR NATAŠA PAVLOVIĆ

- Aynur Bulut (PhD 2011)
- Lan Tang (PhD 2011)

SERVICE AT PRINCETON UNIVERSITY:

Department of Mathematics:

Co-director of Graduate Studies: 2005/06, 2006/07

Member of the Graduate Admissions Committee: 2004/05, 2005/06, 2006/07

Co-organizer of “What is Happening in Fine Hall” Seminar: Spring 2006 and academic year 2006/07

Organizer of Analysis Seminar: 2004/05, 2005/06

OUTREACH:

Presentation in a 2nd grade mathematics class, Highland Park Elementary School, March 22, 2017