

Vincent R. Martinez

CONTACT INFORMATION	CUNY Hunter College Department of Mathematics & Statistics East Building 918 New York, New York 10065	+1-212-772-5791 vrmartinez@hunter.cuny.edu math.hunter.cuny.edu/vmartine/
RESEARCH INTERESTS	Navier-Stokes, Euler, and related hydrodynamic equations, Geophys. fluid dynamics, Turbulence, Well-posedness and Regularity of deterministic and stochastic PDEs, Long-time behavior of dynamical systems, Dispersive equations, Chemotaxis, Data Assimilation and Inverse problems	
POSITIONS	Visiting Researcher, Isaac Newton Institute Satellite Programme	September 2022
	Doctoral Faculty, CUNY Graduate Center	Fall 2021–current
	Assistant Professor, CUNY Hunter College	Aug 2018–current
	Postdoctoral Fellow, Tulane University	Jan 2015–Jul 2018
	Visiting Scholar, Institute of Pure and Applied Mathematics	Sep–Dec 2014
EDUCATION	Indiana University Ph.D., Pure Mathematics August 2014 Doctoral Thesis: <i>On Gevrey regularity of equations of fluid and geophysical fluid dynamics with applications to 2D and 3D turbulence.</i> Advisor: Michael S. Jolly	
	The College of New Jersey B.A., Mathematics May 2008 <i>Magna Cum Laude</i> with Departmental Honors, <i>Dean's List</i> , 2004-2008	
	Penn State University Mathematics Advanced Study Semester (MASS) Program Fall 2007 <i>Best Performance on Analysis Final Exam</i>	
AWARDS & GRANTS	National Science Foundation DMS Conference Grant: Four Decades of the Einstein Chair Seminar Co-PI, Award Number 2303240, \$35,000 2022-2023 DMS Applied Math, Collaborative Research: Effects of Rotation, Stratification, and Dissipation in Incompressible Fluid Flows Lead PI, Award Number 2206491, \$106,000 2022-2025 LEAPS-MPS: Dynamical Parameter Estimation for Hydrodynamic Equations Lead PI, Award Number 2213363, \$238,904 2022-2024	
	City University of New York PSC-CUNY Traditional A Research Award Cycle 53 2022-2023 PSC-CUNY Traditional A Research Award Cycle 52 2021-2022 PSC-CUNY Traditional A Research Award Cycle 50 2019-2020 Hunter College Travel Award 2018-2019	
	Tulane University OGPS Postdoctoral Fellow Travel Award 2015-2017	

Mathematisches Forschungsinstitut Oberwolfach

US Junior Oberwolfach Fellow

Summer 2015

Indiana University Bloomington

Glenn Schober Travel Award

Spring 2014

Rothrock Teaching Award

Spring 2012

Matias Ochoada Fellowship

Fall 2011

Graduate Scholars Fellowship

2008-2009

PUBLISHED OR
ACCEPTED WORKS

19. V.R. Martinez, “Convergence analysis of a parameter estimation algorithm for the 2D Navier-Stokes Equations” *Nonlinearity*, DOI 10.1088/1361-6544/ac5362, April 2022.
18. E. Carlson, J. Hudson, A. Larios, V.R. Martinez, E. Ng, J.P. Whitehead, “Dynamically learning the parameters of a chaotic system using partial observations” *Discrete Contin. Dyn. Sys.*, DOI 10.3934/dcds.2022033, March 2022.
17. M.S. Jolly, A. Kumar, V.R. Martinez, “On local well-posedness of logarithmic inviscid regularizations of generalized SQG equations in borderline Sobolev spaces,” *Commun. Pure Appl. Anal.*, DOI 10.3934/cpaa.2021169, August 29, 2021.
16. A. Biswas, K.R. Brown, V.R. Martinez, “Mesh-Free Interpolant Observables for Continuous Data Assimilation,” *Ann. Appl. Math.*, 38(3), 1–60, 2022.
15. M.S. Jolly, A. Kumar, V.R. Martinez, “On existence, uniqueness, and smoothing to the generalized SQG equation in critical Sobolev spaces,” *Commun. Math. Phys.*, DOI 10.1007/s00220-021-04124-9, May 20, 2021.
14. P.F. Aguilera, V.R. Martinez, and K. Zhao, “A PDE model for chemotaxis with logarithmic sensitivity and logistic growth,” accepted in *Contemp. Math. Appl., Monogr. Expo. Lect. Notes*, DOI 10.1142/12639, (to appear January 2023).
13. A. Farhat, N.E. Glatt-Holtz, V.R. Martinez, S. A. McQuarrie, and J. P. Whitehead, “Data assimilation in large-Prandtl Rayleigh-Bénard convection from thermal measurements,” *SIAM J. Appl. Dyn. Syst.*, 19(1), 510–540, 2020.
12. M.S. Jolly, V.R. Martinez, E.J. Olson, and E.S. Titi “Continuous data assimilation with blurred-in-time measurements of the surface quasi-geostrophic equation,” *Chin. Ann. Math., Ser. B*, 40, 721–764, 2019.
11. M.S. Jolly, V.R. Martinez, T. Sadigov, and E.S. Titi, “A determining form for the subcritical surface quasi-geostrophic equation,” *J. Dyn. Differ. Equations*, 31, 1457–1494, 2019.
10. J. Blocher, V.R. Martinez, and E.J. Olson, “Data assimilation using noisy time-averaged measurements,” *Physica D*, 376-377, 49–59, 2018.
9. L.T. Hoang and V.R. Martinez, “Asymptotic expansion for solutions of the Navier-Stokes equations with non-potential body forces,” *J. Math. Anal. Appl.* 462(1), 84–113, 2018.
8. N. Zhu, Z. Liu, V.R. Martinez, and K. Zhao, “Global Cauchy problem of a system of parabolic conservation laws arising from a Keller-Segel type chemotaxis model,” *SIAM J. Math. Anal.*, 50(5), 5380–5425, 2018.
7. V.R. Martinez, Z. Wang, and K. Zhao, “Asymptotic and viscous stability of large-amplitude solutions of a hyperbolic system arising from biology,” *Indiana Univ. Math. J.*, 64(4), 1383–1424, 2018.

6. L.T. Hoang and V.R. Martinez, “Asymptotic expansion in Gevrey spaces for solutions of the Navier-Stokes equations,” *Asymptotic Anal.*, 167–190, 2017.
5. V.R. Martinez and K. Zhao, “Analyticity and dynamics of a Keller-Segel-Navier-Stokes system,” *Dyn. Partial Differ. Equ.*, 14(2), 125–158, 2017.
4. M.S. Jolly, V.R. Martinez, and E.S. Titi, “A data assimilation algorithm for the subcritical surface quasi-geostrophic equation,” *Adv. Nonlinear Stud.*, 35, 167–192, 2017.
3. A. Biswas and V.R. Martinez, “Higher-order synchronization for a data assimilation algorithm for the 2D Navier-Stokes equations,” *Nonlinear Anal., Real World Appl.*, 35, 132–157, 2017.
2. A. Biswas, V.R. Martinez, and P.S. Silva, “On Gevrey regularity of the supercritical SQG equation in critical Besov spaces,” *J. Funct. Anal.*, 269(10), 3083–3119, 2015.
1. A. Biswas, M.S. Jolly, V.R. Martinez, E.S. Titi, “Dissipation length scale estimates for turbulent flows—a Wiener algebra approach,” *J. Nonlinear Sci.*, 24, 441–471, 2014.

SUBMITTED
WORKS

4. A. Farhat, A. Larios, V.R. Martinez, B. Pachev, J.P. Whitehead, “Conjuring the force from sparse observations in fluid flows,” (submitted to *Phys. Rev. Lett.*) pp. 1–5, Dec 1, 2022.
3. N.E. Glatt-Holtz, V.R. Martinez, and H. D. Nguyen, “The short memory limit for long-time statistics in a stochastic Coleman-Gurtin model of heat conduction,” arXiv:2212.05646v1, pp. 1–71, Dec 12, 2022.
2. V.R. Martinez, “On the reconstruction of unknown driving forces from low-mode observations in the 2D Navier-Stokes Equations,” arXiv:2208.00541v1, pp. 1–15, Jul 31, 2022.
1. N.E. Glatt-Holtz, V.R. Martinez, G.H. Richards, “On the long-time statistical behavior of smooth solutions of the weakly damped, stochastically-driven KdV equation,” arXiv:2103.12942v1, pp. 1–70, Mar 23, 2021.

WORKS IN
PREPARATION

4. V.R. Martinez, J. Murri, B. Pachev, J.P. Whitehead, “Relax, then punch: A relaxation-based approach to inferring forcing in the 2D Navier-Stokes Equations”
3. A. Kumar and V.R. Martinez, “On well-posedness of a mildly dissipative family of active scalar equations in borderline Sobolev spaces”
2. A. Biswas, L.T. Hoang, and V.R. Martinez, “Gevrey regularity and asymptotic expansion for solutions to the 3D Rayleigh-Bénard system for convection”
1. N.E. Glatt-Holtz, V.R. Martinez, and G. H. Richards, “On global approximate and exact controllability of the damped-driven KdV equation with applications to the stochastically forced case”

SEMINARS AND
COLLOQUIA

UC Santa Barbara Applied/PDE/Data Science Seminar	Santa Barbara, CA April 21, 2023
SUNY New Paltz Harrington Lectures	New Paltz, NY March 7, 2023
Florida State University Mathematics Colloquium	Tallahassee, FL March 3, 2023
CUNY GC Graduate Student Colloquium	New York, NY November 14, 2022
CCNY Mechanical Engineering Seminar	New York, NY October 20, 2022
University of Surrey Dynamical Systems and PDE Seminar	Guildford, UK September 16, 2022
Brigham Young University PDE Seminar	Provo, UT July 8, 2022
University of Arkansas Analysis Seminar	Fayetteville, AR April 7, 2022
Washington University St. Louis Analysis Seminar	(Remote) December 6, 2021
Penn State Probability and Financial Mathematics Seminar	(Remote) December 3, 2021
Oregon State University Analysis Seminar	(Remote) November 15, 2021
SUNY Stony Brook Analysis Seminar	Stony Brook, NY November 5, 2021
Texas A&M Nonlinear PDEs Seminar	(Remote) November 2, 2021
IU PDE Seminar	Bloomington, IN October 25, 2021
SUNY New Paltz Machine Learning Seminar	(Remote) October 20, 2021
University of Southern California CAMS Colloquium	(Remote) October 18, 2021
University of Cincinnati Analysis and PDE Seminar	Cincinnati, OH October 15, 2021
Texas Tech Probability, Differential Geom. and Math Physics Seminar	(Remote) October 6, 2021
University of Bremen Applied Analysis Seminar	(Remote) June 15, 2021
Pavia-Milano Seminar on Probability and Math. Statistics	(Remote) June 14, 2021
Tulane University Applied and Computational Math Seminar	(Remote) April 23, 2021
CUNY GC Einstein Chair Mathematics Seminar	(Remote) March 30, April 13, May 4, 2021
UI Chicago Analysis and Applied Math Seminar	(Remote) March 15, 2021
Rutgers University–Newark Physics Colloquium	(Remote) February 26, 2021
CUNY GC Data Science and Applied Topology Seminar	(Remote) Oct 23, Nov 13 2020
UMBC Differential Equations Seminar	(Remote) October 19, 2020
CUNY GC Harmonic Analysis and PDE Seminar	(Remote) October 2, 2020

Clarkson Mathematics Colloquium	(Remote) September 28, 2020
CUNY GC Harmonic Analysis and PDE Seminar	(Remote) May 1, 2020
Drexel PDE and Applied Mathematics Seminar	Philadelphia, PA March 5, 2020
Princeton University Analysis of Fluids Seminar	Princeton, NJ February 6, 2020
IU PDE Seminar	Bloomington, IN April 8, 2019
CUNY GC Nonlinear Analysis and PDE Seminar	New York, NY February 28, 2019
Queensborough Community College Mathematics Colloquium	Queens, NY February 27, 2019
CCNY Mathematics Colloquium	Manhattan, NY February 21, 2019
UMBC Applied Mathematics Colloquium	Baltimore, MD December 7, 2018
NJIT Fluids and Waves Seminar	Newark, NJ, October 29, 2018
Bronx Community College Mathematics Colloquium	Bronx, NY, October 23, 2018
UC San Diego Analysis Seminar	San Diego, CA, May 15, 2018
UC Santa Barbara Applied Math & PDE Seminar	Santa Barbara, CA, January, 19, 2018
Xavier University of Louisiana Mathematics Seminar	New Orleans, LA November 7, 2017
Utah State University Mechanical & Aerospace Engineering Seminar	Logan, UT November 2, 2016
UCLA Analysis & PDE Seminar	Los Angeles, CA October 28, 2016
University of Nevada-Reno Colloquium	Reno, NV October 13, 2016
Brigham Young University PDE Seminar	Provo, UT October 10, 2016
University of Virginia Harmonic Analysis & PDE Seminar	Charlottesville, VA December 1, 2015
University of Wyoming Analysis Seminar	Laramie, WY September 3, 2014
Tulane University, Applied and Computational Math Seminar	New Orleans, LA March 28, 2014

CUNY GRADUATE
CENTER &
SEMINARIAL
ACTIVITIES

Co-organizer of Einstein Chair Seminar with Dennis Sullivan (CUNY Graduate Center)	Summer 2021–current
Tuesdays 1:45-2:50pm	
Co-organizer of Harmonic Analysis & PDEs Seminar with Azita Mayeli (CUNY Queensboro Community College) and Weilin Li (CUNY City College)	Summer 2020–current
Fridays 2:00-3:00pm	
Organizer of Hunter College Applied Math (HCAM) Seminar	Fall 2019–current
Thursdays 4:30-5:30pm	
Co-organizer of Data Science & Applied Topology Seminar with Azita Mayeli (CUNY Queensboro Community College) and Mikael Vejdemo-Johansson (CUNY Staten Island)	

Fridays 12:00-1:00pm Fall 2020–Spring 2021
 Co-organizer of Nonlinear Analysis & PDEs Seminar with Marcello Lucia (CUNY
 Staten Island)
 Thursdays 4:15-5:15pm Spring 2019–Spring 2020

CONFERENCES,
 WORKSHOPS, &
 SUMMER SCHOOLS

AMS Fall Western Sectional Meeting Salt Lake City, UT
Invited Speaker in Recent Advances in the Theory of Fluid Dynamics
 SIAM Central States Section Stillwater, OK
Invited speaker in PDEs and Dynamical Systems Oct 1-2, 2022
 CRM Workshop: Unifying Concepts in PDEs with Randomness Montreal, Canada
Participant May 15-28, 2022
 AIMS Workshop: Crit. & Stoch. in Quasilinear Fluid Systems San José, CA
Participant May 2-6, 2022
 12th IMACS International Conference on Nonlinear Evolution Equations and Wave
 Phenomena: Computation and Theory Athens, GA
Invited Speaker in Asymptotics and Integrable systems March 30-April 1
 SIAM Conference on Analysis of PDEs Virtual
Invited Speaker in Th. Appl. of Data Assim. with Param. Est. March 14-18, 2022
 2021 Mathematical Congress of the Americas (MCA) Virtual
Invited Speaker July 15, 16, 19, 2021
 AMS-MAA Joint Mathematics Meeting Virtual
Invited speaker in Geo. Fluid Dyn., Turb., and D.A January 6-9, 2021
 AMS Fall Western Sectional Meeting Virtual
Invited speaker in PDEs, Data Assim., & Inverse Problems October 24-25, 2020
 AMS Fall Central Sectional Meeting Virtual
Invited speaker in Th. & Comp. Stud. of PDEs of Fluids September 12-13, 2020
 AMS-MAA Joint Mathematics Meeting Denver, CO
Invited speaker in Det. & Prob. Approaches for Nonlin. PDEs January 15-18, 2020
 SIAM Conference on Analysis of Partial Differential Equations La Quinta, CA
Invited speaker in Rig. & Comp. Stud. of Data Assimilation December 11-14, 2019
 Hausdorff Institute of Mathematics (HIM) Trimester Program on Randomness, PDEs
 & Nonlinear Fluctuations Bonn, Germany
Invited Speaker in Workshop on Stochastic Fluid Dynamics November 10-15, 2019
 SIAM Northern States Sectional Meeting Laramie, WY
Invited speaker in Recent Trends in SPDEs September 27-29, 2019
 2019 International Conf. on Industrial & Appl. Math. (ICIAM) Valencia, Spain
Invited Speaker in Recent Adv. in Infinite Dim. Stoch. Analysis July 15-19, 2019
 Recent Advances in Pure and Applied Stochastics New Orleans, LA
Invited Speaker March 14-16, 2019
 AMS Fall Southeastern Sectional Meeting Fayetteville, AR
Invited Speaker in Recent Advances in Math. Fluid Mech. November 3-4, 2018
 AMS Fall Western Sectional Meeting Ann Arbor, MI
Invited Speaker in Anal. and Num. Aspects of Turb. Trans. October 20-21, 2018
 Banff Int. Research Station: Reg. & Blow-up of NS-Type PDEs Alberta, CA
 Participant August 19-24, 2018
 AIMS Conference Series on Dyn. Sys. and Differ. Eqns. Taipei, Taiwan
Invited Speaker July 9, 2018
 AMS-MAA Joint Mathematics Meetings San Diego, CA
Invited Speaker January 9-13, 2018
 2017 Mathematical Congress of the Americas (MCA) Montreal, Canada
Invited Speaker July 24-28, 2017
 Workshop on Probabilistic Perspectives in Nonlinear PDEs Edinburgh, Scotland
Invited Speaker June 5-9, 2017
 Essence of $(u \cdot \nabla)u$: Reflections on Math. Fluid Dyn. Charlottesville, VA

<i>Invited Speaker</i>	May 11-13, 2017
AMS Spring Eastern Sectional Meeting	New York, NY
Invited speaker	May 6-7, 2017
Workshop on Nonlinear Waves: Analysis and Applications	Pittsburgh, PA
Participant	March 17-19, 2017
IPAM Workshop on Turbulent Dissip., Mixing and Predictability	Los Angeles, CA
Participant	January 9-13, 2017
AMS-MAA Joint Mathematics Meeting	Atlanta, GA
<i>Invited Speaker in SS 60A on PDEs for Fluid flow</i>	January 4-7, 2017
1st Northeastern Analysis Meeting (NEAM)	Brockport, NY
<i>Invited Speaker</i>	October 14-16, 2016
AMS Fall Western Sectional Meeting	Denver, CO
Invited Speaker in Nonlinear and Stochastic PDEs	October 8-9, 2016
2016 IMA Summer Graduate Program: Mathematics and Climate	Lawrence, KS
Mentor and Teaching Assistant	July 18-August 5, 2016
IMA Special Workshop: "Dynamics and Differential Equations"	Minneapolis, MN
Participant	June 22-25, 2016.
IPAM Long Program Reunion: Mathematics of Turbulence	Lake Arrowhead, CA
<i>Invited Speaker</i>	June 5-10, 2016.
Analysis & Beyond: Celebrating J. Bourgain's Work & Impact	Princeton, NJ
Participant	May 21-24, 2016.
2016 International Conf. on Evol. Eqn. & 31st Ann. Shanks Lecture	Nashville, TN
<i>Invited Speaker</i>	May 16-20, 2016
The Foias Lectures: Peter Constantin	College Station, TX
Participant	April 25-28, 2016
Analysis of PDEs of Fluid Mechanics and Related Models Workshop	Houston, TX
Participant	October 10-13, 2015
MFO Mathematical Aspects of Hydrodynamics	Oberwolfach-Walke, Germany
Participant	August 9-15, 2015
CIRM Summer School on Transport, Fluids, and Mixing	Levico Terme, Italy
Participant	July 19-24, 2015
AMS Spring Western Sectional Meeting	Las Vegas, NV
<i>Invited Speaker in SS on Nonlinear Conservation Laws</i>	April 19, 2015
NSF-CBMS RRC: Problems of PDEs related to fluids	Stillwater, OK
Participant	July 21 - 25, 2014
MSRI Summer Graduate School in Dispersive PDE	Berkeley, CA
Participant	June 16-27, 2014
4th Workshop on Fluids and PDE at IMPA	Rio de Janeiro, Brazil
<i>Invited speaker</i>	May 26-30, 2014
Workshop on Analysis of Nonlinear PDEs and Fluid Flows	Baltimore, MD
<i>Invited speaker</i>	January 19-20, 2014
2014 JMM,	Baltimore, MD
Participant	January 15-18, 2014
SIAM Conference on Analysis of Partial Differential Equations	Orlando, FL
<i>Invited talk in MS20</i>	December 7-10, 2013
72nd Midwest PDE Seminar	West Lafayette, IN
Participant	November 16-17, 2013
AMS Fall Southeastern Sectional Meeting	Louisville, KY
<i>Invited talk in Special Session on PDEs from Fluid Mechanics</i>	October 5-6, 2013
Stanford Summer School: Recent Adv. in PDEs & Fluids	Palo Alto, CA
Participant and <i>Contributed talk</i>	August 5-18, 2013
AMS MRC: Regularity Problems for PDEs Modeling Fluids	Snowbird, UT
Participant	June 25-July 1, 2013
Geostrophic Turb. and Active Tracer Transport in 2 dimensions	Princeton, NJ

	Participant	March 13-15, 2013
	IU Dissipative Systems Workshop	Bloomington, IN
	<i>Invited speaker</i>	February 8-10, 2013
	9th AIMS Conference	Orlando, FL
	<i>Invited talk in Special Session #30</i>	July 1-5, 2012
	AMS Spring Central Section Meeting	Lawrence, KS
	Participant	March 30-April 1, 2012
	Workshop on Study of Turb. in Phys. Sys. Through Complex Sing. & Det. Modes	
	College Station, TX	
	<i>Invited speaker</i>	February 17-20, 2012
	Incomp. Fluids, Turb. & Mix.: P. Constantin's 60th Birthday	Pittsburgh, PA
	Participant	October 13-16, 2011
	3rd Workshop on Fluids and PDE at UNICAMP	Campinas, Brazil
	Participant	June 27-July 1, 2011
TEACHING	CUNY Graduate Center, Instructor	
EXPERIENCE	MATH 856 Introduction to Partial Differential Eq.	1 semester, 10 students
	CUNY Hunter College, Instructor	
	MATH 795 Analysis of Partial Differential Eq.	1 semester, 10 students
	MATH 750 Calculus on Manifolds	1 semester, 10 students
	MATH 746 Functions of a Real Variable I	2 semesters, 15 students
	MATH 742 Analytic Functions	2 semesters, 10 students
	MATH 685 Numerical Analysis	1 semester, 10 students
	MATH 454 Calculus on Manifolds	1 semester, 10 students
	MATH 385 Numerical Analysis	1 semester, 20 students
	MATH 254 Ordinary Differential Equations	1 semester, 30 students
	STAT 702 Advanced Probability II	1 semester, 15 students
	STAT 701 Advanced Probability I	1 semester, 20 students
	Tulane University, Instructor	
	M4470 Analytical Methods in Applied Math.	2 semesters, 20 students
	M2240 Introduction to Applied Mathematics	1 semester, 80 students
	M2210 Calculus III, Honors	1 semester, 10 students
	M2210 Calculus III	1 semester, 30 students
	Indiana University, Instructor	
	M119 Brief Survey of Calculus I	3 semesters, 90 students
	J113 Introduction to Calculus with Applications	3 semesters, 20 students
	J112 Introduction to College Math I	2 semesters, 30 students
	J111 Introduction to College Math I	1 semester, 30 students
	J110 Introductory Problem Solving	1 semester, 20 students
	M014 Basic Algebra	1 semester, 10 students
	Indiana University, Teaching Assistant	
	T101 Math for Elementary Teachers	2 semesters, 90 students
MENTORING	Math Alliance	Alliance Mentor, Fall 2020-current
	Jose Armando Sanchez Diaz	Fall 2022
	Isabella Chittumuri	Spring 2021
	Hunter College	
	Michael Pallante	Pure Math M.A.
	<i>Dynamical Parameter Estimation for Nonlinear Systems</i>	Summer 2022-current
	Thomas Joy	Applied Math M.A.
	<i>Customization of YOLOv5 & Analysis of MTA Turnstile Data</i>	Spring-Fall 2022
	Fardous Sabnur	Applied Math M.A.
	<i>Robust Object Tracking and Re-Identification</i>	Spring 2022

Tatiana Mross	Applied Math M.A.
<i>Assessing Economic Impact of NJ Transit Villages</i>	Spring 2022
Caihua Chen	Applied Math M.A.
<i>Parameter Identifiability for Linear Dynamical Systems</i>	Spring 2022
Yanlin Ou	Applied Math M.A.
<i>Parameter Identifiability for Linear Dynamical Systems</i>	Spring 2022
Keven Calderón	Applied Math M.A.
<i>Numerical Compar. of Param. Est. Tech. for Dyn. Sys.</i>	Fall 2021-Spring 2022
Nathan Taylor	Applied Math M.A.
<i>Dynamical Parameter Estimation in Linear Systems</i>	Fall 2020-Spring 2021
	ML Researcher at Redesign Science
Bart Rosenzweig	Applied Math M.A.
<i>Analysis & Computation of Exact Factorization for NLS</i>	Spring 2020-2021
	Math PhD (The Ohio State University)
Kenneth Brown	Pure Math M.A.
<i>Higher-order Synch. for Nudging 2D NSE with Nodal Obs.</i>	Spring 2020-2021
	Math PhD (UC Davis)
Eunice Ng	Pure Math M.A.
<i>Dynamical Parameter Estimation for Lorenz 63</i>	Spring 2020-2021
	Math PhD (Stony Brook University)
Sanjit Gill	Applied Math M.A.
<i>Markov Chain Monte Carlo Methods for DA</i>	Fall 2020-Spring 2021
	Director at Mackay Shields LLC
Melissa DiMaio	Applied Math M.A.
<i>On the Fermi-Pasta-Ulam-Tsingou paradox and the KdV equation</i>	Fall 2020
Daniel Grange	Applied Math M.A.
<i>Steady States of 2D Euler with Finite Frequency Support</i>	Fall 2019-Fall 2020
	Applied Math PhD (Stony Brook University)
Paul Popa	Applied Math M.A.
<i>Dynamic Mean-Adjustment for Filtering Noise in DA</i>	Spring 2019-2020
	Analyst System2
Ariel Glassberg	Pure Math M.A.
<i>Bayesian Parameter Estimation for Lorenz 63</i>	Spring 2019-Summer 2020
	Math PhD (UNC Chapel Hill)
Weiyang Lin	Pure Math M.A.
<i>Electron Orbitals for the Hydrogenic Atom</i>	Fall 2019
	Math PhD (CUNY GC)
Jared Berman	Applied Math M.A.
<i>Bayesian DA for a model of Brand Attraction</i>	Spring 2019-Fall 2019
	Senior Data Engineer at The RealReal
Aidin Murtha	Pure Math M.A.
<i>Ill-posed. of the 2D Incomp. Euler Eqn in the Critical Sobolev Space</i>	Fall 2019
	Math PhD (CUNY GC)
Michael Ferguson	Applied Math M.A.
<i>Adaptive Nudging Schemes for DA of Lorenz 63</i>	Spring 2019
Tulane University	
<i>Rosa 'Padi' Fuster-Aguilera</i>	Postdoctoral Fellow (UC Boulder)
Co-advised with Kun Zhao	Spring 2018-Spring 2021
<i>Kui Zhang</i>	Quant Analyst for Wells Fargo
Ph.D Thesis Committee	Spring 2017
<i>Parker Evans</i>	Math Ph.D. Student (Rice University)
Guided reading in Linear Algebra, Real Analysis	Spring 2015-Spring 2016
<i>Skylar Deckoff-Jones</i>	Physics Ph.D. Student (M.I.T)
Undergraduate Senior Thesis Committee	Spring 2016

2016 IMA Summer Graduate Program: Mathematics and Climate

Mentor: group project mentor on Lagrangian Data Assimilation involving three graduate students (Colin Guider (UNC-Chapel Hill), Kiwon Lee, (Seoul National University), Luyu Sun (UMD-College Park))

Teaching Assistant: lead group discussions and problem solving sessions

COMMUNITY
SERVICE

13. BIRS-CMO Workshop: Patho. Behav. of Sol. to Fluid Eqs. Oaxaca, Mexico
Workshop co-organizer (with A. Cheskidov and M. Dai) August 6-11, 2023
12. AMS Spring Central Sectional Meeting Cincinnati, OH
Special session co-organizer: Recent Developments in the Study of Fluid Flows, Turbulence, and its Applications (with S. Punshon-Smith) April 15-16, 2023
11. Four Decades of the Einstein Chair Seminar New York, NY
Conference co-organizer (with A. Basjmajian, B. Ferlengez, F. Gardiner, Y. Jiang, J. Hu, L. Keen, I. Kofman, S. Wilson, M. Zeinalian) January 17-19, 2023
10. AMS Fall Western Sectional Meeting Salt Lake City, UT
Special Session co-organizer: Data, Param., and Inv. Problems for Dissipative Systems (with A. Larios and J.P. Whitehead) Oct 22-23, 2022
9. AMS Spring Central Sectional Meeting Virtual
Special Session co-organizer: Analytical, Computational, and Data-Driven Appr. in Fluid Dynamics (with A. Farhat and A. Pakzad) March 26-27, 2022
8. SIAM Conference on Dynamical Systems Virtual
Mini symposium co-organizer: Mathematics of Fluids: Analysis and Computations (with C.F. Mondaini) May 23-27, 2021
7. SIAM Conference on Mathematics of Data Science Virtual
Mini symposium co-organizer: Bridging Data Assimilation with Data-Driven Analysis (with A. Farhat) June 29-30, 2020
6. SIAM Conference on Analysis of Partial Differential Equations La Quinta, CA
Mini symposium co-organizer (with T. Drivas and H. Nguyen)
5. AMS Fall Eastern Sectional Meeting Binghamton, NY
Special Session co-organizer: Anal. & Appl. of Det. & Stoch. Evol. Eqns. (with K. Yamazaki) October 12-13, 2019
4. 2019 International Conf. on Industrial & Appl. Math. (ICIAM) Valencia, Spain
Minisymposium co-organizer: Recent developments in nonlinear PDEs of hydro. and mathematical biology (with M.S. Jolly and K. Zhao)
3. SIAM Conference on Analysis of Partial Differential Equations Baltimore, MD
Minisymposium co-organizer: Regularity and Long-time Behavior of Fluid Flows (with A. Farhat) December 9-12, 2017
2. SIAM Conference on Applications of Dynamical Systems Snowbird, UT
Minisymposium co-organizer: Recent Developments in Data Assimilation (with J. Maclean and C. Mondaini) May 21-25, 2017
1. SIAM Conference on Analysis of Partial Differential Equations Scottsdale, AZ
Minisymposium co-organizer: Fluid Models, Turbulence and Data Assimilation (with A. Biswas & M.S. Jolly) Dec 7-10, 2015

DEPARTMENTAL
SERVICE

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| Graduate Admissions Committee Chair | Fall 2022-current |
| Finalize decisions on graduate admissions | |
| Applied Math MA Graduate Advisor | Summer 2020-current |
| Course advisement and approvals, Recruitment, Project & Thesis adviser | |
| Department Educational Policy Committee | Fall 2019-current |
| Curriculum review, revision, and approval | |

EDITORIAL
ACTIVITIES

Reviewer for *AIMS Mathematics*, *AMS MathSciNet*, *American Mathematical Monthly*, *Ann. of Appl. Math.*, *Applicable Analysis*, *Bulletin des Sciences Mathématiques*, *Communications in Mathematical Physics*, *Communications in Mathematical Sciences*, *Complex Analysis & Operator Theory*, *Discrete & Contin. Dyn. Syst.*, *Evolution Equations and Control Theory*, *Indiana University Math. Journal*, *Journal of Differential Equations*, *Journal of Evol. Equ.*, *Journal of Math. Analysis & Applications*, *Journal of Mathematical Physics*, *Journal of Nonlinear Analysis*, *Journal of Nonlinear Science*, *Journal of Physics A*, *Journal of Pure & Applied Functional Analysis*, *Math. Methods in Applied Sciences*, *Mathematische Nachrichten*, *Nonlinearity*, *Physica D*, *Physica Scripta*, *PSC-CUNY Research Award Program*, *Results in Applied Mathematics*, *Revista de la Real Academia de Ciencias Exactas: Físicas y Naturales. Serie A. Matemáticas*

PROFESSIONAL
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