

Geordie Richards

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Canadian Citizen

Employment

- 2021–present **Assistant Professor, Teaching Stream (LTA)**,
Department of Mathematical and Computational Sciences,
University of Toronto, Mississauga,
Mississauga, ON, Canada.
- Summer 2021 **Adjunct Associate Professor**,
Department of Mathematics and Statistics, Hunter College,
New York City, NY, USA.
- 2016–2021 **Assistant Professor**,
Department of Mechanical and Aerospace Engineering, Utah State University,
Logan, UT, USA.
- 9/2015–
11/2015 **Research Member**, *Mathematical Sciences Research Institute,*
Berkeley, CA, USA.
- 2013–2016 **Visiting Assistant Professor**,
Department of Mathematics, University of Rochester,
Rochester, NY, USA.
- 2012–2013 **Postdoctoral Research Fellow**, *Institute for Mathematics and its Applications,*
Minneapolis, MN, USA.

Education

- 2007–2012 **Ph. D.**, *University of Toronto, Toronto, ON, Canada.*
Mathematics
- 2006–2007 **M. Sc.**, *University of Toronto, Toronto, ON, Canada.*
Mathematics
- 2001–2005 **Hon. B. Sc.**, *University of Toronto, Toronto, ON, Canada.*
Mathematics specialist - *with high distinction*

Doctoral Thesis

- Title *Maximal-in-time behaviour of deterministic and stochastic dispersive PDEs*
Advisors James Colliander (University of British Columbia) and Tadahiro Oh (Edinburgh University)

Teaching Interests

Foundational courses in pure and applied mathematics, ordinary and partial differential equations, probability theory, numerical methods, fluid and continuum mechanics.

Research Interests

Deterministic and stochastic nonlinear PDEs, harmonic and functional analysis, probability theory, dynamical systems, estimation theory, uncertainty quantification, fluid mechanics.

Teaching Awards

- 2019 **Mechanical & Aerospace Engineering Teacher of the Year**, *Utah State University.*

- 2015 **Professor of the Year Award nominee**, *University of Rochester*.
- 2011 **Engineering faculty TA award finalist**, *University of Toronto*.
- 2009 **Daniel B. Delury teaching award**, *Used to recognize the best TAs in the University of Toronto Mathematics department*.

Teaching Experience

Course Instructor

- Fall 2021 **MAT 135 (Differential Calculus)**, *University of Toronto, Mississauga*,
Online synchronous course in differential calculus. Taught through an active learning format.
Two lecture sections
- Fall 2021 **MAT 133 (Calculus and Linear Algebra for Commerce)**,
University of Toronto, Mississauga,
Online synchronous course in calculus and linear algebra for commerce students. Taught through an active learning format.
- Summer 2021 **MATH 747 (Theory of Functions of a Real Variable II)**, *Hunter College*,
Online synchronous graduate course in functional analysis; metric spaces, Banach spaces, Hilbert spaces, and Fourier analysis.
- Summer 2021 **STAT 312/702 (Stochastic Processes/Advanced Probability Theory II)**,
Hunter College,
Cross-listed online synchronous course in advanced probability theory; Markov chains, continuous stochastic processes, martingale theory, and Brownian motion.
- Spring 2018, 2019, 2020, 2021 **MAE 3210 (Engineering Numerical Methods)**, *Utah State University*,
3rd year undergraduate course on numerical methods for engineering applications; root finding, linear systems, optimization, curve fitting, and solving differential equations. Assignments are completed in the MATLAB programming language.
- Fall 2018, 2019, 2020 **MAE 6040 (Continuum Mechanics and Elasticity)**, *Utah State University*,
Graduate course on the fundamental mechanics of continuous media; tensor calculus, stress and strain, deformation, rate equations, constitutive relations, and detailed derivation of the governing equations of motion for solids and fluids.
- Spring 2017, 2020, 2021 **MAE 6490 (Turbulence)**, *Utah State University*,
Graduate course on fundamentals and modeling of turbulent fluid flow; stochastic tools, the governing equations, transition to turbulence, isotropic turbulence, measurement techniques, and simulating free and wall bounded turbulent shear flows.
- Fall 2016, 2017 **MAE 6500 (Potential Flow)**, *Utah State University*,
Graduate course on inviscid, irrotational fluid flow with emphasis on aircraft analysis and design; exact solutions with complex variables and conformal mapping, lifting-line method, and numerical vortex lattice and panel methods.
- Spring 2016 **MTH 282 (Complex Variables)**, *University of Rochester*,
2nd year undergraduate course on introductory complex analysis.
- Spring 2015, 2016 **MTH 201 (Intro to Probability Theory)**, *University of Rochester*,
2nd year undergraduate course on introductory probability theory.
- Fall 2014 **MTH 210H (Introduction to Financial Mathematics: Honors)**,
University of Rochester,
2nd year undergraduate honors course on mathematical concepts and techniques underlying finance theory.

- Spring 2014, **MTH 235 (Linear Algebra)**, *University of Rochester*,
 Summer 2015 2nd year undergraduate course on rigorous proof-based linear algebra. Topics include finite-dimensional vector spaces, linear transformations, matrices, and eigenspaces.
- Spring 2014, **MTH 130 (Excursions in Mathematics)**, *University of Rochester*,
 2015, 2016 1st year undergraduate course providing exposure to mathematics. Topics include voting systems, basic finance, Fibonacci numbers, the golden ratio, and the Mandelbrot set.
- Fall 2013 **MTH 263 (Qualitative Theory of ODEs)**, *University of Rochester*,
 2nd year undergraduate course on the qualitative theory of solutions to ODEs that cannot be solved explicitly.
- Fall 2013, **MTH 162 (Calculus IIA)**, *University of Rochester*,
 2014 1st year undergraduate course on single variable integral calculus at an intermediate level.
- Summer 2012 **MAT 334H (Complex Variables)**, *University of Toronto*,
 2nd year undergraduate course on introductory complex analysis.
- Summer 2012, **MAT 235Y (Calculus II)**, *University of Toronto*,
 2010–2011 2nd year undergraduate course on multivariable calculus.
- Spring 2012 **MAT 336S (Elements of Analysis)**, *University of Toronto*,
 3rd year undergraduate course providing the foundations of rigorous analysis and revisiting calculus with proofs.
- Fall 2011 **APM 384F (PDEs for Engineering Science)**, *University of Toronto*,
 3rd year undergraduate course providing an introduction to applied partial differential equations. Taken by students in engineering science stream.
- Fall 2011 **MAT 291F (Calculus III)**, *University of Toronto*,
 1st year undergraduate course on single variable integral calculus at an intermediate level. Taken by students in electrical and computer engineering stream,
NOTE: Worked as course coordinator for this class, which had 3 lecture sections.
- Summer 2009, 2010 **MAT 137Y (Calculus!)**, *University of Toronto*,
 1st year undergraduate course on single variable calculus at an intermediate level.

Public Education

- November 2016 **Guest Lecture on “An introduction to Topology” to high school audience**, *Cohen College Prep High School, New Orleans, LA.*
- January and September 2014 **Guest Lectures on “An introduction to Topology” to middle school audience**, *“Math Circle” at University of Rochester, Rochester, NY.*
- 2001-2012 **Multiple in-class visits to Inglenook Community High School**, *Promoted post-secondary education in math and science, Toronto, ON.*
- 2004-2005 **JUMP Math Tutor**, *Supported implementation of JUMP Math curriculum in elementary schools, Toronto, ON.*

Training

- Spring 2008 **MAT 1499 (Teaching Large Mathematics Classes)**, *University of Toronto*,
 Completed graduate course on methodology for teaching large math classes, including guest lectures in real university courses with feedback from the instructor and students.

Teaching Assistant

- Spring 2012 **APM 462S (Nonlinear Optimization)**, *University of Toronto.*

Summer 2006, 2011 **MAT 235Y (Calculus II)**, *University of Toronto*.

Fall 2006, Fall 2010 **MAT 1060F (Graduate PDEs I)**, *University of Toronto*.

Spring 2010 **MAT 1700S (General Relativity)**, *University of Toronto*.

Fall 2009 **APM 384F (PDEs for Engineering Science)**, *University of Toronto*.

Spring 2009 **MAT 244S (Introduction to ODEs)**, *University of Toronto*.

2008–2009 **MAT 237Y (Multivariable Calculus)**, *University of Toronto*.

Fall 2008 **APM 421F (Quantum Mechanics)**, *University of Toronto*.

2006–2008 **MAT 137Y (Calculus!)**, *University of Toronto*.

Spring 2006 **MAT 223S (Linear Algebra I)**, *University of Toronto*.

2004–2006 **MAT 135Y (Calculus I)**, *University of Toronto*.

Research Advisor

2016-2021 **Major Advisor**, 2 *Ph.D. students at USU (Louis Tonc, Jacob Bryan)*, 1 *M.S. student (Joseph James, graduated 2019)*, 2 *Undergraduate Research Assistants (Matt DeFriez, Jacob Needham)*.

Presentations by students:

1. "Monte Carlo Methods and Skewed Kalman Filters for State Determination", by L. Tonc, 2018 AAS/AIAA Astrodynamics Conference, Snowbird, UT, Aug. 2018.
2. "Efficiency Analysis for a Novel Expander Design", by J. James, 2018 USU Student Research Symposium, Logan, UT, April 2018.

Summer 2013 **MAXIMA REU project (NSF funded, Award #1156701): Recognizing and segmenting barcodes in images**, *Institute for Mathematics and its Applications*, Joint with T. Hoft (University of St. Thomas) guided a research project involving four undergraduate students,

Students: Mikaela Cashman (Coe College '14, UNL CompSci Ph.D.), Keenan Hawekotte (Nebraska Wesleyan '15), Elizabeth Newman (Haverford '14, Tufts Ph.D.), Dung Nguyen (Bard '15).

Presentations by students:

1. "Bar code localization in images using neural network and linear discriminant analysis frameworks"
 - D. Nguyen, Joint Mathematics Meetings, Baltimore (MD), Jan. 2014.
 - M. Cashman, SE Conference for Undergrad Women in Math, Clemson University (SC), Oct. 2013.
2. "Bar code localization using machine learning" (poster)
 - M. Cashman, K. Hawekotte, E. Newman, D. Nguyen, JMM, Baltimore (MD), Jan. 2014.
 - E. Newman, Undergraduate Science Research Symposium, Haverford College (PA), Sep. 2013

Publications

Published Journal Articles

- [1] J. Földes, N.E. Glatt-Holtz, and G. Richards. "Large Prandtl number asymptotics in randomly forced turbulent convection." *Nonlinear Differential Equations and Applications NoDEA* **26** (2019). Available at <http://arxiv.org/abs/1504.02904>.
- [2] B.L. Smith, D.R. Neal, M.A. Feero, and G. Richards. "Assessing the limitations of the effective number of samples for finding the uncertainty of the mean of correlated data." *Measurement Science and Technology* **29**, 125204 (2018).
- [3] J. Földes, S. Friedlander, N.E. Glatt-Holtz, and G. Richards. "Asymptotic analysis for

randomly forced MHD." *SIAM Journal on Mathematical Analysis* **49**, 4440–4469 (2017). Available at <https://arxiv.org/abs/1604.06352>.

- [4] N.E. Glatt-Holtz, J.C. Mattingly, and G. Richards. "On unique ergodicity in nonlinear stochastic partial differential equations." *Journal of Statistical Physics* **166**, 1–24 (2017). Available at <http://arxiv.org/abs/1512.04126>.
- [5] J. Földes, N.E. Glatt-Holtz, G. Richards, and J. Whitehead. "Ergodicity in randomly forced Rayleigh-Bénard convection." *Nonlinearity* **29** (2016). Available at <http://arxiv.org/abs/1511.01247>.
- [6] T. Oh, G. Richards, and L. Thomann. "On invariant Gibbs measures for the generalized KdV equations." *Dynamics of Partial Differential Equations* **13**, 133–153 (2016). Available at <http://arxiv.org/abs/1509.06873>.
- [7] G. Richards. "Invariance of the Gibbs measure for the periodic quartic gKdV." *Annales de l'Institut Henri Poincaré (C) Analyse non linéaire* **33**, 699–766 (2016). Available at <http://arxiv.org/abs/1209.4337>.
- [8] J. Földes, N.E. Glatt-Holtz, G. Richards, and E. Thomann. "Ergodic and mixing properties of the Boussinesq equations with a degenerate random forcing." *Journal of Functional Analysis* **269**, 2427–2504 (2015). Available at <http://arxiv.org/abs/1311.3620>.
- [9] G. Richards. "Well-posedness of the stochastic KdV-Burgers equation." *Stochastic Processes and their Applications* **124**, 1627–1647 (2014). Available at <http://arxiv.org/abs/1109.4926>.
- [10] G. Richards. "Mass Concentration for the Davey-Stewartson System." *Differential and Integral Equations* **24**, 261–280 (2011). Available at <http://arxiv.org/abs/0909.0492>.

Submitted Journal Articles

- [11] N. Glatt-Holtz, V. Martinez, and G. Richards. "On the long-time statistical behavior of smooth solutions of the weakly damped, stochastically-driven KdV equation." (2021). Available at <https://arxiv.org/abs/2103.12942>.
- [12] Z. Pan, J. Whitehead, G. Richards, T. Truscott, and B. Smith. "Error propagation dynamics of PIV-based pressure calculation (3): length scale effects." (2018). Available at <https://arxiv.org/abs/1807.03958>.
- [13] J. Földes, N.E. Glatt-Holtz, G. Richards, and J. Whitehead. "Hydrodynamic stability in the presence of a stochastic forcing: a case study in convection." (2017). Available at <https://arxiv.org/abs/1704.03840>.

Conference Articles

- [14] G. Richards, B.L. Smith, and D.R. Neal. "Finding the uncertainty of the mean for correlated data from PIV." *Proceedings of 19th International Symposium on the Application of Laser and Imaging Techniques to Fluid Mechanics* pp. 1–12 (2018).
- [15] L. Tonc, D. Geller, and G. Richards. "Monte Carlo Methods and Skewed Kalman Filters for State Determination." *Proceedings of 2018 AAS/AIAA Astrodynamics Specialist Conference* pp. 1–8 (2018).

Expository Articles

- [16] C. Mueller and G. Richards. "Can solutions of the wave equation with nonlinear multiplicative noise blow-up?" *Open Problems in Mathematics* **2**, 1–4 (2014). Available at <http://opmath.org/index.php/opm/article/view/9>.

Ph.D. Thesis

- [17] G. Richards. "Maximal-in-time behavior of solutions to deterministic and stochastic dispersive PDEs." 2012, University of Toronto, Available at <https://tspace.library.utoronto.ca/handle/1807/32973>.

Research Funding

Previous

- 2019 **Nuclear Regulatory Commission (NRC) Faculty Development Grant (value: \$431,628)**, *Faculty Development Program to Integrate New Faculty in Nuclear Engineering Research at Utah State University*, **Co-PI** with PI Barton Smith and Co-PI Hailei Wang (USU, Mechanical & Aerospace Engineering), June, 2019 - May, 2022.
Declined in 2021 when leaving USU
- 2021 **Department of Energy (DOE) grant (value: \$800,000)**, *Dynamic Modeling, Optimization and Techno-economic Analysis of Integrated Energy Systems for Sodium Fast Reactors*, **Co-PI** with PI Hailei Wang and Co-PI Matthew Harris (USU, Mechanical & Aerospace Engineering), October, 2021 - September, 2024.
Declined in 2021 when leaving USU
- 2017 **Utah NASA Space Consortium Grant (value: \$45,000)**, *Skewed Kalman Filtering for Orbit Determination from Sparse and Noisy Observations*, **PI** with graduate student Louis Tonc (USU, Mechanical & Aerospace Engineering), June, 2017 - May, 2020.

Research Honors and Awards

- 2016 **NSF Conference Grant (Value: \$17,875, Award #1700560)**, *Rocky Mountain Partial Differential Equations*, 1 week conference in Provo, UT, May 2017, **Co-PI** with PI Jared Whitehead, and Co-PIs Mark Allen and Blake Barker.
- 2016 **Research in Groups grant**, *Banff International Research Station, Canada*, 1 week research visit, with Nathan Glatt-Holtz, Juraj Földes and Jared Whitehead.
- 2015 **MSRI Research Membership**, *Program on New Challenges in PDE: Deterministic Dynamics and Randomness in High and Infinite Dimensional Systems*, September 1, 2015 - November 1, 2015.
- 2015 **Research in Peace grant**, *Mathematical Research Institute of Oberwolfach, Germany*, 3 week research visit, with Nathan Glatt-Holtz, Juraj Földes and Susan Friedlander.
- 2014 **Research in Pairs grant**, *Mittag-Leffler Institute, Sweden*, 3 week research visit, with Nathan Glatt-Holtz, Juraj Földes and Enrique Thomann.
- 2012 **IMA Postdoctoral Fellowship**, *Program on Infinite Dimensional and Stochastic Dynamical Systems*, September 1, 2012 - August 1, 2013.
- 2007-2010 **Ontario Graduate Scholarship.**
- 2006 **Natural Sciences and Engineering Research Council Graduate Scholarship.**
- 2005 **Samuel Beatty Scholarship.**
- 2004,2005 **Innis College Academic Excellence Award.**

Research Presentations

Invited Conference Presentations

- October 2020 Fall Western Sectional AMS Meeting, University of Utah (virtual),
Long-time statistics of damped stochastic KdV
- October 2020 Fall Western Sectional AMS Meeting, University of Utah (virtual),
Asymptotic coupling and unique ergodicity for damped stochastic KdV
- September 2020 Fall Central Sectional AMS Meeting, University of Texas at El Paso (virtual),
Asymptotic coupling and unique ergodicity for damped stochastic KdV
- September 2019 SIAM Northern States Section, University of Wyoming,
Ergodic theory for stochastic Boussinesq equations
- March 2019 Recent Advances in Pure and Applied Stochastics, Tulane University,
Ergodic theory for stochastic Boussinesq equations
- May 2018 Drexel Waves Workshop, Drexel University,
Ergodic theory for stochastic Boussinesq equations
- September 2017 SIAM Central States Section, Colorado State University,
Ergodicity results for stochastic partial differential equations
- April 2016 Spring Central Sectional AMS Meeting, University of Utah,
On invariant Gibbs measures for the generalized KdV equations
- April 2016 Spring Central Sectional AMS Meeting, University of Utah,
On unique ergodicity for nonlinear stochastic PDEs
- December 2015 SIAM Conference on Analysis of Partial Differential Equations, Scottsdale, AZ
On invariant Gibbs measures for the generalized KdV equations
- December 2015 SIAM Conference on Analysis of Partial Differential Equations, Scottsdale, AZ
Ergodicity results for stochastic Boussinesq equations
- August 2015 Conference on "Harmonic Analysis and Partial Differential Equations", International Center
for Mathematical Sciences (ICMS), Edinburgh, UK,
Ergodicity results for stochastic Boussinesq equations
- March 2015 Spring Central Sectional AMS Meeting, Georgetown University,
Ergodicity results for stochastic Boussinesq equations
- January 2015 Informal Analysis Workshop, Texas A&M University,
Statistical mechanics for gKdV
- July 2014 Australian Statistical Conference in conjunction with the Institute for Mathematical Statis-
tics Annual Meeting, Australian Technology Park, Sydney, Australia
*Ergodic and mixing properties of the Boussinesq Equations with a degenerate random
forcing*
- April 2014 Spring Central Sectional AMS Meeting, Texas Tech University
*Ergodic and mixing properties of the Boussinesq equations with a degenerate random
forcing*
- May 2013 Conference on "Probability and PDEs" held at Centro de Giorgi, Pisa, Italy
Statistical mechanics for gKdV
- March 2012 Spring Eastern Sectional AMS Meeting, George Washington University
Invariance of the Gibbs measure for the periodic quartic gKdV

Invited Seminar Presentations

- October 2020 Joint BYU/USU Virtual Applied Math Seminar,
Long-time statistics of damped stochastic KdV
- June 2018 Analysis Seminar, University of Toronto,
Asymptotic Analysis for Stochastic MHD
- November 2018 Applied Math Seminar, Utah State University
Invariant measures for Hamiltonian PDEs
- March 2017 Probability Seminar, University of Utah
Invariant measures for Hamiltonian PDEs
- August 2016 Colloquium, Tulane University,
Invariant measures for Hamiltonian PDEs
- September 2016 Applied Math Seminar, Brigham Young University,
Convergence of invariant states in singular parameter limits for systems of stochastic PDEs
- August 2016 Analysis Seminar, University of Edinburgh,
Convergence of invariant states in singular parameter limits for systems of stochastic PDEs
- April 2016 Analysis Seminar, University of Toronto,
Ergodicity results for stochastic Boussinesq equations
- November 2015 Analysis Seminar, Cornell University,
On invariant Gibbs measures for the generalized KdV equations
- October 2015 Center for Applied Mathematical Sciences Colloquium, University of Southern California,
Ergodicity results for stochastic Boussinesq equations
- July 2015 MAE Departmental Colloquium, Utah State University,
Invariant measures for nonlinear evolution equations
- April 2015 Applied Math Seminar, Virginia Tech,
Ergodicity Results for stochastic Boussinesq Equations
- April 2015 Probability and Financial Math Seminar, Penn State University,
Ergodicity Results for stochastic Boussinesq Equations
- February 2014 Applied Math Seminar, Virginia Tech
Statistical Mechanics for gKdV
- November 2013 Probability Seminar, University of Rochester
Ergodic and Mixing Properties of the Boussinesq Equations with a Degenerate Random Forcing
- November 2013 Colloquium, Georgia Southern University
Statistical Mechanics for gKdV
- October 2013 Analysis Seminar, University of Rochester
Statistical Mechanics for gKdV
- April 2013 Analysis Seminar, Princeton University
Statistical Mechanics for gKdV
- April 2013 Dynamics Seminar, Boston University
Invariance of the Gibbs measure for the periodic quartic gKdV
- March 2013 Analysis and Applied Math Seminar, Duke University
Invariance of the Gibbs measure for the periodic quartic gKdV,
- January 2013 Stochastics Seminar, Georgia Tech
Invariance of the Gibbs measure for the periodic quartic gKdV

- December 2012 IMA Postdoc Seminar, Institute for Mathematics and its Applications
Invariance of the Gibbs measure for the periodic quartic gKdV
- September 2012 PDE Seminar, University of Minnesota
Invariance of the Gibbs measure for the periodic quartic gKdV
- January 2012 Analysis Seminar, University of Rochester
Invariant measures for Hamiltonian PDEs
- Expository Presentations**
- April 2017 SIAM Student Chapter, Utah State University
Introduction to stochastic partial differential equations
- April 2016 Graduate PDE Seminar, University of Toronto
On Unique Ergodicity for Stochastic PDEs
- February 2013 Dispersive PDEs Seminar, University of Toronto
Statistical Mechanics for Hamiltonian PDEs
- September 2011 Graduate Student Seminar, University of Toronto
Probabilistic Cauchy theory and invariant measures for Hamiltonian PDEs
- June 2011 Dispersive PDEs seminar, University of Toronto
Function spaces for critical well-posedness theory
- October 2010 Dispersive PDEs seminar, University of Toronto
Invariant Gibbs measures for periodic nonlinear Schrödinger equations (Part II)
- September 2010 Fields Analysis Working Group, Fields Institute, Toronto, Canada
Invariant Gibbs measures for periodic nonlinear Schrödinger equations (Part I)
- June 2010 Dispersive PDEs seminar, University of Toronto
Invariant measures for Hamiltonian PDEs
- April 2010 Fields Analysis Working Group, Fields Institute, Toronto, Canada
Local well-posedness of the stochastic KdV-Burgers equation
- February 2009 Dispersive PDEs seminar, University of Toronto
Critical local well-posedness and perturbation theory
- July 2009 Dispersive PDEs Seminar, University of Toronto
The classical limit of mean field quantum systems
- December 2008 Fields Analysis Working Group, Fields Institute, Toronto, Canada
The Tomas-Stein restriction Theorem
- October 2008 Dispersive PDEs Seminar, University of Toronto
Log-log blowup solutions to L^2 -critical NLS
- November 2006 Fields Analysis Working Group, Fields Institute, Toronto, Canada
Classification of minimal mass blow-up solutions to the L^2 -critical NLS

Service

- 2020-2021 Joint USU/BYU Applied Math Seminar
Co-organizer of meetings held on Zoom
- 2020-2021 USU SEDS (Students for the Exploration and Development of Space) club
Faculty Advisor
- 2019-2021 APS Division of Fluid Dynamics 2024 Meeting, Salt Lake City, UT
Co-organizer of meeting to be held at University of Utah

- 2016-2021 Committee member on 11 Ph.D. and 12 M.S. committees in MAE department
- 2016-2021 MAE undergraduate curriculum committee, Utah State University
- 2017 MAE hiring committee, Utah State University
- July 2017 Mathematical Congress of the Americas, Montreal, Canada
Organizer of special session on "Nonlinear and Stochastic Partial Differential Equations"
- June 2017 Probabilistic Perspectives in Nonlinear PDEs, Edinburgh, UK
Co-organizer of NSF funded conference (\$30,000, Award #1700124) held at the International Centre for Mathematical Sciences, with Susan Friedlander, Nathan Glatt-Holtz, Oana Pocovnicu, and Tadahiro Oh
- May 2017 Rocky Mountain Partial Differential Equations, Provo, UT
Co-organizer of NSF funded conference (\$17,875, Award #1700560) with Mark Allen, Blake Barker and Jared Whitehead
- May 2017 Spring Eastern Sectional AMS Meeting, Hunter College
Organizer for special session on "Nonlinear and Stochastic Partial Differential Equations: Theory and Applications in Turbulence and Geophysical Flows"
- October 2016 Fall Western Sectional AMS Meeting, University of Denver
Organizer for special session on "Nonlinear and stochastic partial differential equations"
- October 2014 Fall Western Sectional AMS Meeting, San Francisco State University
Organizer for special session on "Nonlinear PDEs"
- April 2014 Spring Western Sectional AMS Meeting, University of New Mexico
Organizer for special session on "Stochastics and PDEs"

Referee for

- SIAM Journal on Mathematical Analysis
- Journal of Mathematical Analysis and Applications
- Proceedings of the Royal Society of Edinburgh, Section A
- Canadian Mathematical Bulletin
- Communications in Pure and Applied Analysis
- Discrete and Continuous Dynamical Systems, Series A
- Journal of Mathematical Physics
- Nonlinear Analysis Series A: Theory, Methods and Applications

References

Teaching

- **Thomas Fronk**,
Associate Dean, College of Engineering, Utah State University,
E-mail: thomas.fronk@usu.edu.
- **Mark Herman**,
Director of Undergraduate Studies in Mathematics, University of Rochester,
E-mail: herman@math.rochester.edu.
- **Catherine Sulem**,
Professor, Department of Mathematics, University of Toronto,
E-mail: sulem@math.toronto.edu.

Research

- **James Colliander,**
Professor and Director of Pacific Institute of the Mathematical Sciences,
Department of Mathematics, University of British Columbia,
E-mail: colliand@math.ubc.ca.
- **Jonathan Mattingly,**
James B. Duke Distinguished Professor and Chair, Department of Mathematics,
Duke University,
E-mail: jonm@math.duke.edu.
- **Tadahiro Oh,**
Professor, School of Mathematics, University of Edinburgh,
E-mail: hiro.oh@ed.ac.uk.