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Employment

2017 –	Associate Professor (2023–)	Department of Mathematics, Johns Hopkins, USA
	Assistant Professor (2017–2023)	Department of Mathematics, Johns Hopkins, USA
	Visiting Faculty Scientist	Lawrence Berkeley National Laboratory, USA
2014 –2017	Postdoctoral Fellow	Department of Mathematics, UC Berkeley, USA
2013 – 2014	Postdoctoral Fellow	Lawrence Berkeley National Laboratory, USA
2009 – 2012	Graduate Teaching Assistant	Department of Mathematics, University of Kansas, USA
2008 – 2009	Graduate Research Assistant	Department of Mathematics, University of Kansas, USA
2004 – 2007	Graduate Research Assistant	Wuhan Institute of Physics and Mathematics, China

Education

2013	Ph. D. Mathematics, University of Kansas, USA
2007	M.S. Applied Mathematics, Wuhan Institute of Physics and Mathematics, China
2004	B.S. Information Science and Computing, Huazhong University of Science and Technology, China

Research Interests

My research interests are in probability, statistics, and scientific computing that build the mathematics foundation of data science. My current research focuses on learning dynamics from data, in particular, data-driven stochastic model reduction, interacting particle systems, and learning kernels in operators. I am interested in the following interconnected topics:

- inverse problems, statistical/machine learning, nonparametric estimation
- reduced order models, data assimilation, uncertainty quantification
- learning dynamics from time series analysis
- Malliavin calculus, Stein's method and stochastic PDEs

Grant support and Awards

- NSF DMS-2238486, *CAREER: Learning kernels in operators from data: learning theory, scalable algorithms, and applications.* $500,000. 2023/7-2028/6.
- The Catalyst Award at Johns Hopkins University, *Space-aware regularization for inverse problems and machine learning.* $75,000. 2022/7-2023/6.
- NSF DMS 1913243. (Co-PI: Mauro Maggioni). *Learning Dynamics from Data: Discovering Governing Interaction Laws of Particle Systems.* $299,998. 2019/8-2022/12.
- NSF DMS1821211. *Data-Driven Stochastic Model Reduction and Its Applications in Data Assimilation.* $160,142. 2018/7-2021/11.
- (Co-PI) AFOSR (Air Force Office of Scientific Research) FA9550-20-1-0288 (PI: Mauro Maggioni) *Statistical Learning for Complex Dynamic Data Sets in Metric Spaces.* 2020/9-2023/9.
- (senior personnel) DOE ASCR Scientific Machine Learning for Modeling and Simulations, DE-SC0021361 (PI: Mauro Maggioni) *Statistical Learning for Nonlinear Model Reduction from Local Simulations of Stochastic and Particle- and Agent-Based Systems.* 2020/9-2022/8.

Journal Publications (* = graduate student)

1. F.Lu, Qingci An* and Yue Yu. *Nonparametric learning of kernels in nonlocal operators.* Journal of Peridynamics and Nonlocal Modeling, 2023. `https://arxiv.org/abs/2205.11006`.

2. Quanjun Lang* and F. Lu. *Identifiability of interaction kernels in mean-field equations of interacting particles*, to appear on Foundations of Data Science, 2023. `https://arxiv.org/abs/2106.05565`.

3. Zhongyang Li and F. Lu. *On the coercivity condition in learning interacting particle systems.* to appear on Stochastics and Dynamics, 2023. `https://arxiv.org/abs/2011.10480`.

4. Qingci An*, Yannis Kevrekidis, F.Lu, and Mauro Maggioni. *Unsupervised learning of observation functions in state-space models by nonparametric moment methods*, Foundations of Data Science, 5 (3), 340-365.

5. Xingjie Li, F.Lu, Molei Tao and Felix Ye. *NySALT: Nyström-type inference-based schemes adaptive to large time-stepping*, J. Comput. Phys. 477, 111952, 2023.

6. Nan Chen, Honghu Liu and F. Lu. *Shock trace prediction by reduced models for a viscous stochastic Burgers equation.* Chaos, 32(4), 043109, 2022.

7. Quanjun Lang* and F. Lu. *Learning interaction kernels in mean-field equations of 1st-order systems of interacting particles.* SIAM Journal on Scientific Computing 44 (1), A260–A285, 2022.

8. Xingjie Li, F. Lu and Felix X.F. Ye. *ISALT: Inference-based schemes adaptive to large time-stepping for locally Lipschitz ergodic systems.* Discrete and Continuous Dynamical Systems - Series S (DCDS-S) 15 (4), 747-771, 2022.

9. F. Lu, M. Maggioni, and S. Tang. *Learning interaction kernels in stochastic systems of interacting particles from multiple trajectories.* Found. Comput. Math., 1-55, 2021

10. F. Lu, M. Maggioni and S. Tang. *Learning interaction kernels in heterogeneous systems of agents from multiple trajectories.* J. Machine Learning Research, vol. 22, no.32, 1-67, 2021.

11. Zehong Zhang* and F. Lu. *Cluster prediction for opinion dynamics with partial observations.* IEEE Transactions on Signal and Information Processing over Networks. vol 7, 101-113, 2021.

12. K. K. Lin and F. Lu. *Data-driven model reduction, Wiener projections, and the Koopman-Mori-Zwanzig formalism.* J. Comput. Phys. 424, 109864, 2021.

13. Z. Li, F. Lu, M. Maggioni, S. Tang and C. Zhang. *On the identifiability of interaction functions in systems of interacting particles.* Stoch.Process.Their Appl. 132, 135-163, 2021.

14. F. Lu. *Data-driven model reduction for stochastic Burgers equations.* Entropy, 22(12), 1360, 2020.

15. F. Lu, M. Zhong, S. Tang, M. Maggioni. *Nonparametric inference of interaction laws in systems of agents from trajectory data.* Proc. Natl. Acad. Sci. USA, 116.29 (2019): 14424–14433.

16. F. Lu, N. Weitzel, A. Monahan. *Joint parameter and state estimation for nonlinear stochastic energy balance models from sparse noisy data.* Nonlin. Processes Geophys., 26 (2019), no.3, 227–250.

17. F. Lu, X. Tu and A. Chorin. *Accounting for Model Error from Unresolved Scales in Ensemble Kalman Filters by Stochastic Parameterization.* Mon. Wea. Rev., 145(2017), no. 9, 3709–3723.

18. F. Lu, K. K. Lin and A. J. Chorin. *Data-based stochastic model reduction for the Kuramoto–Sivashinsky equation.* Physica D, 340 (2017), 46–57.

19. F. Lu, K. K. Lin and A. J. Chorin. *Comparison of continuous and discrete-time data-based modeling for hypoelliptic systems.* Comm. App. Math. Com. Sc., 11 (2016), no. 2 187–216.

20. A. J. Chorin, F. Lu, R. N. Miller, M. Morzfeld and X. Tu. *Sampling, feasibility, and priors in data assimilation.* Discrete Contin. Dyn. Syst. Ser. A, 36 (2016), no. 8, 4227–4246.

21. A. J. Chorin and F. Lu. *Discrete approach to stochastic parametrization and dimension reduction in nonlinear dynamics.* Proc. Natl. Acad. Sci. USA, 112 (2015), no. 32, 9804–9809.

22. F. Lu, M. Morzfeld, X. Tu and A. J. Chorin. *Limitations of polynomial chaos expansions in the Bayesian solution of inverse problems.* J. Comput. Phys. 282 (2015),138–147.

23. Y. Hu, F. Lu and D. Nualart. *Convergence of Densities of some functionals of Gaussian Processes.* J. Funct. Anal. 266 (2014), no. 2, 814–875.

24. Y. Hu, F. Lu and D. Nualart. *Non-degeneracy of Sobolev Pseudo-norms of fractional Brownian motion.* Electron. Commun. Probab. 18 (2013), no. 84, 1–8.

25. Y. Hu, F. Lu and D. Nualart. *Hölder continuity of the solution for a class of nonlinear SPDEs arising from one-dimensional superprocesses.* Probab. Theory Relat. Fields 156 (2013), no. 1-2, 27–49.

26. Y. Hu, F. Lu and D. Nualart. *Feynmann-Kac formula for a stochastic heat equation driven by fractional noise.* Ann. Probab. 40 (2012), no. 3, 1041–1068.

27. F. Lu. *Branching points for a class of variational equations involving potential with parameter.* Adv. Nonlinear Stud., 8 (2008), no. 2, 251–269.

Conference papers and other publications

1. F.Lu, Quanjun Lang* and Qingci An*. *Data adaptive RKHS Tikhonov regularization for learning kernels in operators.* PMLR 190:158-172, 2022. Presented at MSML. 2022/8. `https://proceedings.mlr.press/v190/lu22a.html`

2. F. Lu, K. K. Lin, and A. J. Chorin. *Data-driven stochastic model reduction.* Paper for Advancing X-cutting Ideas for Computational Climate Science, 2016.

3. F. Lu, *Malliavin Calculus and its applications to SPDEs.* PhD thesis, University of Kansas, 2013.

Submitted preprints

1. F.Lu, Changhong Mou, Honghu Liu, and Traian Iliescu. *Data-driven stochastic reduced order model with space-time reduction.* arXiv preprint. `https://arxiv.org/abs/2209.02739`, 2022/9.

2. Quanjun Lang*, F. Lu, Xiong Wang, Neil Chada. Data adaptive priors for Bayesian inverse problems of learning kernels in operators. arXiv preprint, `https://arxiv.org/abs/2212.14163`. 2022/12.

3. F.Lu, Zehong Zhang*, Esther Xu*, Terry Lyons, Yannis Kevrekidis and Tom Woolf. *Benchmarking optimality of time series classification methods in distinguishing diffusions.* arXiv2301.13112. 2023/1.

4. F.Lu and Miao-Jung Yvonne Ou. *An adaptive RKHS regularization for Fredholm integral equations.* arXiv2303.13737. 2023/3.

5. Quanjun Lang and F.Lu. *Small noise analysis for Tikhonov and RKHS regularizations.* arXiv2305.11055.

6. X.Wang, I.Seroussi, and F.Lu. *Optimal minimax rate of learning interaction kernels.* arXiv preprint. `https://arxiv.org/abs/2311.16852`, 2023/11.

Students and postdocs

Graduate students

Chuhuan Huang	2023– (PhD in Math.)
Esther Fei Xu	2021-2023 expected (MSc. in AMS.)
Qingci An	2017-2023 (PhD in Math.)
	Data Scientist at Prudential Financial
Zehong Zhang	2017-2023 (PhD in Math.)
Quanjun Lang (co-s. Yannick Sire)	2017-2023 (PhD in Math.)
	Assistant Research Professor of Mathematics at Duke

Postdocs mentoring/mentored

Xiong Wang (co-s. with M.Maggioni)	2022-	
Felix Ye (co-s. with M.Maggioni)	2018-2021	TT Assistant Professor at SUNY Albany
Sui Tang (co-s. with M.Maggioni)	2017-2020	TT Assistant Professor at UCSB

Conference Presentations ["Talk" refers to invited talk]

1. Talk: SIAM-NNP (New York-New Jersey-Pennsylvania Section), NJIT in Newark, NJ. 10/2023.
2. Talk: ICIAM23, Tokyo. 8/2023
3. Talk: Tianyuan Mathematical Center Conference: Random Dynamical System, Wuhan. 6/2023
4. Talk: SIAM DS23. Portland, Oregon. 5/2023.
5. Talk: SIAM Southeastern Atlantic Annual Meeting. Virginia Tech, 3/2023
6. Talk: The 3rd Symposium on Machine Learning and Dynamical Systems. The Fields Institute, Toronto. 9/2022
7. Talk: MSML22, Beijing, 8/2022
8. Talk: SIAM Annual Meeting, Pittsburg, 7/2022
9. Talk: WCCM-APCOM, virtual, Japan, 7/2022,
10. Keynote talk: Accurate ROMs for Industrial Applications at Virginia Tech, 7/2022
11. Talk: SIAM Conference on Uncertainty Quantification, 4/2022
12. Talk: the 6th Annual Meeting of SIAM Central States Section, virtual,10/2021
13. Talk: SIAM SEAS, Auburn University, 9/2021
14. Talk: the Euro Dynamics Days, virtual, 8/2021
15. Talk: SIAM Annual Meeting, virtual, 7/2021
16. Talk: SIAM Conference on Applications of Dynamical Systems (DS21), virtual, 5/2021
17. Talk: SIAM Conference on Computational Science and Engineering (CSE21), virtual, 3/2021
18. Talk: The 2nd Symposium on Machine Learning and Dynamical Systems. The Fields Institute. Virtual, 9/2020
19. Talk: AMS Fall central sectional meeting, Special Session on Classical and Geophysical Fluid Dynamics: Modeling, Reduction and Simulation. Madison, Wisconsin, 9/2019
20. Talk: AMS Fall central sectional meeting, Special Session on Uncertainty Quantification Strategies for Physics Applications. Madison, Wisconsin, 9/2019
21. Talk: US National Congress on Computational Mechanics (USNCCM), Austin, 7/2019
22. Talk: IMS-China International Conference on Statistics and Probability, Dalian, 7/2019
23. Four Talks: SIAM Conference on Applications of Dynamical Systems (DS19), Snowbird, Utah, 5/2019
24. Talk: Inference based model reduction for stochastic Burgers equation. KI-Net conference on "Dimension reduction in physical and data sciences", Duke, 4/2019
25. Poster: Stochastic PDE model identification from sparse noisy data, 1st Workshop on Leveraging Artificial Intelligence (AI) in the Exploitation of Satellite Earth Observations and Numerical Weather Prediction (NWP). NOAA Center for Weather and Climate Prediction. College Park, MD. 4/2019
26. Talk: Joint State and Parameter Estimation for Non-Linear Stochastic Energy Balance Models from sparse noisy data, Baltimore, JMM, 1/2019
27. Poster: Joint State and Parameter Estimation for Non-Linear Stochastic Energy Balance Models, Washington DC, AGU, 12/2018
28. Talk: Data-driven stochastic modeling and SPDEs. International Conference on Stochastic Partial Differential Equations, U of Alberta, 9/2018
29. Poster: Stochastic model reduction in data assimilation. SAMSI, MUMS opening workshop, 8/2018
30. Talk: Data-driven non-Markov model reduction. SIAM Annual Meeting, Portland, Oregon, 7/2018
31. Talk: Particle filter for hidden non-Markov models. SIAM Annual Meeting, Portland, Oregon, 7/2018

32. Talk: Bayesian approach to paleoclimate modeling with stochastic energy balance model. CLIM Transition Workshop (of the Program on Mathematical and Statistical Methods for Climate and the Earth System), SAMSI, 5/2018

33. Talk: Data-driven stochastic model reduction. SIAM UQ18, Grove Garden, CA, 4/2018

34. Talk: Data-driven stochastic model reduction. The 42nd SIAM Southeastern Atlantic Sectional Conference (SIAM-SEAS 2018), UNC Chapel Hill, 3/2018

35. Poster: Data assimilation with non-Markovian forward models. QMC Program: Trends and Advances in Monte Carlo Sampling Algorithms Workshop, SAMSI, Duke, 12/2017

36. Talk: Data-driven stochastic model reduction and its application in data assimilation. Workshop on Nonlinear and Stochastic Problems in Atmospheric and Oceanic Prediction, Banff International Research Station for Mathematical Innovation and Discovery (BIRS), Canada, 11/2017

37. Talk: Data-driven stochastic model reduction. Conference on Classical and Geophysical Fluid Dynamics: Modeling, Reduction and Simulation. Virginia Tech, 6/2017

38. SIAM Conference on Applications of Dynamical Systems (DS17). Snowbird, Utah, 5/2017

39. Minisymposium on Numerical Methods for Uncertainty Quantification, Surrogate Models, and Bayesian Inference. SIAM Conference on Computational Science and Engineering, Atlanta, 2/27–3/3, 2017

40. American Geophysical Union Fall meeting, San Francisco, 12/2016

41. Minisymposium on Computation and Dynamics in Climate Models. SIAM Conference on Mathematics of Planet Earth (MPE), 10/2016

42. Advancing X-cutting Ideas for Computational Climate Science (AXICCS). Rockville, MD, 9/2016

43. Workshop on Stochastic numerical algorithms, multiscale modeling and high-dimensional data analytics, ICERM, 7/2016

44. The 115th Statistical Mechanics Conference, Rutgers, 5/2016

45. American Geophysical Union Fall meeting, San Francisco, 12/2015

46. Bay Area Scientific Computing Day, LBNL, 12/2015

47. Midwest Mathematics and Climate Conference, University of Kansas, 4/2015

48. American Geophysical Union Fall meeting, San Francisco, 12/2014

49. American Mathematical Society Fall Western Sectional Meeting, San Francisco State University, 10/2014

50. American Mathematical Society Central Section Meeting, University of Kansas, 3/2012

51. International Conference on Malliavin Calculus and Stochastic Analysis, University of Kansas, 3/2011

52. The 4th Graduate Student Probability conference, Duke University, 4/2010

Invited Seminar/Colloquium Talks

1. Seminar, Dept. Math.& Stats, Henan University, Kaifeng, 8/2023

2. Seminar, Dept. Math.& Stats, Tianyuan Math. Center in Central China, Wuhan University, 8/2023

3. Seminar, Institute of Computational Mathematics and Scientific/Engineering Computing (ICMSEC), Chinese Academy of Sciences, 7/2023

4. Seminar, Department of Mathematics, University of Delaware, 4/2023.

5. Colloquium, Department of Mathematics, Penn State University, 1/2023

6. Seminar, Dept. Applied Math.& Stats., Johns Hopkins, 11/2022

7. Seminar, Oak Ridge National Lab, 8/2022

8. Seminar, Institute of Computational Mathematics and Scientific/Engineering Computing (ICMSEC), Chinese Academy of Sciences, 6/2022

9. Seminar, Illinois Tech, 5/2022

10. Seminar, UMass. Amhurst, 3/2022

11. Seminar, Argonne National Laboratory, 12/2021

12. Data Science Seminar, Purdue University, 10/2021

13. Colloquium, Dept. Math.& Stats., UNC at Charlotte, 10/2021

14. Computational and Applied Mathematics (CAM) Seminar, U. of Kansas, 3/2021

15. Colloquium, Dept. of Math, Virginia Tech, 3/2021

16. Junior Colloquium, Dept. of Math, JHU, 10/2020

17. Applied Math seminar, Mathematics Center, Huazhong University of Science and Technology, 8/2020

18. Applied Math. and Comput. Science Colloquium, University of Pennsylvania, 11/2019

19. Colloquium, Dept. Mathematics and Statistics, University of Nevada, Reno, 10/2019

20. Institute of Computational Mathematics and Scientific/Engineering Computing (ICMSEC), Chinese Academy of Sciences, 7/2019

21. Applied Math seminar, Mathematics Center, Huazhong University of Science and Technology, 6/2019

22. Applied Math seminar, Mathematics Department, U.S. Naval Academy, 3/2019

23. CSCAMM Seminar, University of Maryland, 2/2019

24. Analysis and Probability Seminar, University of Connecticut, 2/2019

25. Applied and computational math seminar, Department of Mathematics, Georgia Tech, 12/2018

26. Applied Math seminar, Department of Mathematics, University of Wisconsin, Madison, 10/2018

27. Applied mathematics and PDE seminar, Department of Mathematics, University of Maryland, 11/2017

28. ACM seminar, Department of Mathematics, University of South Carolina, 11/2017

29. Applied mathematics seminar, Department of Mathematics, Duke University, 9/2017

30. Research seminar, Naval Research Laboratory, Marine Meteorology Division, Monterey, CA, 3/2017

31. Seminar, Department of Mathematical sciences, Stevens Institute of Technology, 2/2017

32. Data seminar, Department of Mathematics, Johns Hopkins, 2/2017

33. Colloquium, Department of Mathematics, Lehigh University, 1/2017

34. Stochastics Seminar, Department of Mathematics and Statistics, Boston University, 1/2017

35. Modeling and Computation Seminar, Department of Mathematics, University of Arizona, 12/2016

36. PDE and Applied Math Seminar, UC Davis, 11/2016

37. Applied Mathematics and Statistics Seminar, UC Santa Cruz, 4/2016

38. Colloquium, Department of Mathematics, Penn State University, 2/2016

39. Collaboratory on Mathematics for Mesoscopic Modeling of Materials (CM4) Webinar, Pacific Northwest National Laboratory, 11/2015

40. Applied Mathematics Seminar, UC Berkeley, 10/2015

41. Uncertainty quantification seminar, Sandia National Laboratory, Livermore, 1/2015

42. Applied Mathematics Seminar, UC Berkeley, 5/2012

Mini-courses

1. Mini-course (6-lectures), *Introduction to Nonparametric Learning of Kernels in Operators*, Great Bay University, 7/2023

2. Mini-course (4-lectures), *Mathematical Foundations of Learning Interaction Kernels and Latent Functions in Operators*, Beijing International Center for Mathematical Research, Peking University, 8/2022.

Teaching

Johns Hopkins

Math 110.773 Topics in Data Science (3 credits, 6 grad)	Fall 2023
Math 110.416 Honor Analysis (3 credits, 11 undergrad)	Spring 2023
Math 110.657 Stochastic Differential Equations (3 credits, 12 grad + 1 undergrad)	Fall 2022
Math 110.417 Partial Differential Equations (3 credits, 6 undergrad)	Spring 2022
Math 110.657 Stochastic Differential Equations (3 credits, 26 grad)	Fall 2021
Math 110.417 Partial Differential Equations (3 credits, 22 undergrad)	Spring 2021
Math 110.757 Topic course: systems of interacting particle/agents (3 credits, 8 grad)	Spring 2020
Math 110.417 Partial Differential Equations (3 credits, 8 undergrad)	Spring 2020
Math 110.415 Honor Analysis (3 credits, 18 undergrad)	Fall 2019
Math 110.417 Partial Differential Equations (3 credits, 17 undergrad)	Spring 2019
Math 110.757 Topic course: stochastic dynamical systems (3 credits, 9 grad)	Spring 2019
Math 110.637 Functional Analysis (3 credits, 11 grad)	Fall 2018
Math 110.302 Differential Equations (3 credits, 182 undergrad)	Spring 2018

UC Berkeley

Math 128A: Numerical analysis (4 credits, 46 undergrad)	Summer 2015

University of Kansas

Math 122: Engineering Calculus II	Fall 2012
Math 116: Business Calculus II	Spring 2012
Math 122: Engineering Calculus II	Fall 2011
Math 122: Engineering Calculus II	Spring 2011
Math 121: Engineering Calculus I	Fall 2010
Math 121: Engineering Calculus I	Spring 2010
Math 115: Business Calculus I	Fall 2009

Academic Service

Seminars/ meetings organization

- Co-organizer (with Mauro Maggioni). Data Science Seminar, Johns Hopkins University, 8/2017– current

- Co-organizer (with Jose Carrillo, Katy Craig, Massimo Fornasier and Mauro Maggioni), week-long workshop on "Interacting particle systems: analysis, control, learning and computation", ICERM, 5/2024

- Co-organizer (with Mauro Maggioni). Session on interacting particle systems, ICIAM, 8/2023

- Co-organizer (with Kevin Lin, Yen Ting Lin) Session on Model reduction and closure without scale separation. SIAM Conference on Dynamical Systems (DS21), 5/2023.

- Co-organizer (with Sui Tang) Session on Machine learning and inverse problems. SIAM Annual meeting, 7/2022

- Co-organizer (with Kevin Lin) Session on Data-driven model reduction of nonlinear dynamics. Digital EuroDynamics Day, 8/2021

- Co-organizer (with Kevin Lin, Ilya Timofeyev, Felix Ye) Session on Model reduction and closure without scale separation. SIAM Conference on Dynamical Systems (DS21), 5/2021.

- Co-organizer (with Kevin Lin) Session on Data-driven modeling of stochastic nonlinear dynamics: theory and computing. Digital EuroDynamics Day, 8/2020

- Co-organizer (with Kevin Lin). Sessions on Inference and Data-driven Modeling of Large, Chaotic, and Noisy Systems, Dynamics Days Europe, Auguest 24-28, 2020 (postponed)

- Co-organizer (with Ming Zhong and Mauro Maggioni). Sessions on Data-driven methods for complex systems, SIAM Conference on Mathematics of Data Science, Cincinnati, Ohio, May 5-7, 2020 (cancelled)

- Organizer. Session on Stochastic processes in stochastic modeling and computation. IMS-China International Conference on Statistics and Probability, Dalian, 7/2019

- Co-organizer (with Kevin Lin). Session in Model reduction and dynamical systems. SIAM Conference on Dynamical Systems, Snowbird, Utah, 5/2019

- Co-organizer (with Matthias Morzfeld). Mini-symposium on Model reduction and fast sampling methods for Bayesian inference, SIAM Conference on Uncertainty Quantification, Orange County, CA, 4/2018

- Co-organizer (with Kevin Carlberg and Matthias Morzfeld). Mini-symposium on Numerical methods for uncertainty quantification, surrogate models and Bayesian inference, SIAM Conference on Computational Science and Engineering, 2/2017

- Co-convener (with Cécile Penland, Juan M. Restrepo and Paul D. Williams). Session on Stochastic Modeling in Atmosphere, Ocean, and Climate Dynamics, American Geophysical Union Fall meeting in the Nonlinear Geophysics section. 12/2016

- Co-organizer (with Lin Lin and Per-Olof Persson). Applied math seminar, UC Berkeley and Lawrence Berkeley National Laboratory, 8/2015 –5/2017

- Co-organizer. Graduate student seminar, University of Kansas, 2010 – 2012

Journal/book Referee

PNAS	SIAM Journal of Uncertainty Quantification
Physica D	SIAM Journal on Applied Mathematics
Chaos	SIAM Journal on Scientific Computing (SISC)
Foundations of Data Science	Discrete and Continuous Dynamical Systems Series S
J. of Computational Physics	The IEEE Transactions on Signal Processing
J. of Mathematical Physics	The Notices of the American Mathematical Society
J. of Inequalities and Applications	Mathematics
Statistics and Probability Letters	Stochastic Dynamics
Geoscientific Model Development	Atmosphere
Abstract and Applied Analysis	Acta Mathematica Scientia
Research in the Mathematical Sciences	Mathematical Reviews
SIADS	Monthly Weather Review
Nonlinear Dynamics	Statistics and Computing
Pattern Recognition Letters	

Stochastics: An International Journal of Probability and Stochastic Processes
Communications in Applied Mathematics and Computational Science (Camcos)
Communications in Nonlinear Science and Numerical Simulation