

Curriculum vitae of Davar Khoshnevisan

February 5, 2020

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Education

- (1989) PhD in Statistics, University of California, Berkeley
- (1984) Combined BSc/MSc in Math. Sciences, The Johns Hopkins University

Academic Positions

- (Jun 2017–2020) Chair, Department of Mathematics, University of Utah
- (2001–present) Professor, University of Utah
- (Jan 2016) Visiting Member, Kavli Institute for Theoretical Physics, UCSB
- (Oct 2015) Visiting Member, MSRI, Berkeley
- (Jun 2014) Simons Visiting Professor, MFO, Oberwolfach, Germany
- (Jun 2011) Professeur Invité, University of Lille, France
- (Apr–May 2009) Professeur Invité, University of Paris 13, France
- (Apr–Jun 2001) Professeur Invité, EPF–Lausanne, Switzerland
- (Oct 2000) Professeur Invité, University of Paris 6, France
- (1998) Visiting Member, MSRI, Berkeley (2 weeks)
- (1996–2001) Associate Professor, University of Utah
- (1993–1996) Assistant Professor, University of Utah
- (Summer 1993, Summer 1992) Honorary Fellow, University of Wisconsin–Madison
- (1990–1993) Acting Assistant Professor, University of Washington
- (1989–1990) Instructor, MIT

Professional Distinctions

- (2020) Fellow of *The American Mathematical Society*
 - (2018) Medallion Lecturer, *The Institute of Mathematical Statistics*
 - (2015) Fellow of *The Institute of Mathematical Statistics*
 - (2014) Oberwolfach–Simons Visiting Professorship (with Ana Patrícia Carvalho Gonçalves and Konstantin Khanin)
 - (2013) CBMS Lecturer (*Conference Board of Mathematical Sciences*)
 - (1998) *The Rollo Davidson Prize* (with Wendelin Werner)
- Citations found at <http://www.statslab.cam.ac.uk/Rollo/> and https://en.wikipedia.org/wiki/Rollo_Davidson_Prize

Select Invitations (2016+ only)

- (Jan–Apr 2021) *Fractional Differential Equations*, Newton Institute, Cambridge, UK
- (Apr 2020) *Fingerlakes Probability Seminar*, SUNY Binghamton, NY
- (Apr 2020) AMS Conference in Purdue University, Special Session on *Gaussian and non-Gaussian Stochastic Analysis*, West Lafayette, Indiana (unable to attend due to scheduling conflicts)
- (Mar 2020) AMS Conference at the University of Virginia, Special Session on *Advances in High and Infinite Dimensional Stochastic Analysis*, Charlottesville, Virginia (unable to attend due to scheduling conflicts)
- (Sep 2020) *Theory and Computational Methods for SPDEs*, BIRS-CMO, Oaxaca, México (unable to attend due to scheduling conflicts)
- (Sep 2020) *The 10th International Conference on Stochastic Analysis and its Applications*, Kyoto, Japan
- (Aug 2020) *Gaussian Random Fields, Fractals, SPDEs, and Extremes*, CBMS/NSF Regional Research Conference in Mathematical Sciences (Principal speaker: Yimin Xiao)

- (Aug 2020) *X School on Probability and Stochastic Processes*, Conference in honor of Jean Bertoin, México
 - (July 2020) *16th International Workshop on Markov Processes and Related Topics*, Central South University, (Hunan Province), China (unable to go due to scheduling conflicts)
 - (June 2020) Summer Meeting of the Canadian Mathematical Society, session on *Stochastic Partial Differential Equations*, Ottawa, CA (unable to attend due to scheduling conflicts)
 - (June 2020) AIMS Special Session on *Stochastic Partial Differential Equations*, Atlanta
 - (June 2020) AIMS Special Session on *Fractal Geometry, Dynamical Systems, and Their Applications*, Atlanta
 - (Jan 2020) Workshop on *Stochastic Analysis, Geometry and Random Fields*, Indian Statistical Institute, Bangalore, India (unable to go due to scheduling conflicts)
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- (Dec 2019) *Congreso Latinoamericano de Probabilidad y Estadística (Clapem XV)*, Mérida, Yucatán, México
 - (Dec 2019) Session on *Fractal Geometry, Analysis, and Applications* in 2019 Winter Meeting of the Canadian Mathematical Society, Ottawa, Canada (unable to attend because of scheduling conflicts)
 - (Sep 2019) Mini-symposium on *Stochastic Partial Differential Equations* at the Northern States Section meeting for SIAM, Laramie, Wyoming (unable to attend because of health reasons)
 - (Sep 2019) AMS Conference in U Wisconsin-Madison, Special Session on *Stochastic Partial Differential Equations and Related Fields*
 - (July 2019) *The 15th International Workshop on Markov Processes and Related Topics*, Jilin University, China (unable to go due to scheduling conflicts)
 - (June 2019) *Workshop on Stochastic Partial Differential Equations*, Fields Institute, Toronto, Canada
 - (May 2019) ARO-sponsored conference, *Mathematical Challenges Associated with Failure of Brittle Materials*, The Johns Hopkins University, Baltimore (unable to go due to scheduling conflicts)
 - (May 2019) *2019 Spring Probability Workshop*, Academia Sinica, Taipei, Taiwan
 - (Apr 2019) AMS Conference in U Connecticut, Special Session on *Stochastic Analysis and Related Fields*, Storrs, CT (unable to go due to scheduling conflicts)
 - (Mar 2019) Colloquium, Carnegie Mellon University, PA
 - (Mar 2019) *Probabilistic Perspectives in Nonlinear PDEs*, Tulane University (unable to go due to scheduling conflicts)
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- (Dec 2018) *Shape Analysis, Stochastic Geometric Mechanics and Applied Optimal Transport*, Banff International Research Station, Banff, Canada (unable to go due to scheduling conflicts)
 - (Nov 2018) *Functional Inequalities in Probability*, Storrs, Connecticut
 - (Sep 2018) Conference on SPDE and Related Topics, Edmonton, Canada (unable to go due to scheduling conflicts)
 - (Sep 2018) Workshop on *Stochastic Analysis*, Banff–Oaxaca (BIRS-CMO), Mexico
 - (Aug 2018) *Particle Systems and Parabolic PDEs*, Banff International Research Station, Banff, Canada (unable to go due to scheduling conflicts)
 - (Aug 2018) *Probability Workshop in Gyeongju*, Gyeongju, Korea
 - (Aug 2018) *Third Conference on Ambient Fields and Related Topics*, Aarhus University, Denmark (unable to go due to scheduling conflicts)
 - (Jul 2018) *Stochastic Analysis and Related Topics*, The University of Hong Kong, Hong Kong
 - (Jul 2018) Workshop on *Challenges in Probability and Mathematical Physics*, Satellite conference for the International Congress of Mathematical Physics, Montréal, Canada (unable to go due to scheduling conflicts)
 - (Jun 2018) *The 40th Conference on Stochastic Processes and Their Applications* (IMS Medallion Lecture) Chalmers University of Technology, Gothenburg, Sweden
 - (Jun 2018) *Canadian Mathematical Society Summer Meeting/Conference*, session on *Ergodic Theory, Dynamical Systems, Fractals and Applications*, Fredericton, New Brunswick, Canada (unable to go due to scheduling conflicts)
 - (Apr 2018) *Random PDEs*, Centre International de Recontres Mathématiques (Luminy), Marseilles,

- France (unable to go due to scheduling conflicts)
- (Apr 2018) AMS Conference in Vanderbilt University, Special Session on *Quantization for Probability Distributions and Dynamical Systems*, Nashville, TN (unable to go due to scheduling conflicts)
 - (Mar 2018) AMS Conference in Ohio State University, *Workshop on Stochastic Analysis in Infinite Dimensions*, Columbus, Ohio
 - (Feb 2018) Colloquium, University of Pennsylvania, Philadelphia
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- (Nov 2017) Colloquium, Tulane University, New Orleans
 - (Nov 2017) AMS conference in UC Riverside. *Special Sessions on Analysis and Geometry of Fractals*
 - (Oct 2017) *Workshop on Stochastic Analysis and Its Applications*, Banff International Research Station, Banff, Canada
 - (Sep 2017) *Mini-symposium on PDEs in Fluid Dynamics: Analysis and Computation*, 3rd Annual Meeting of SIAM Central States Section at Colorado State University, Fort Collins, CO
 - (Sep 2017) Colloquium, University of Arizona, Tucson, AZ
 - (Aug 2017) Research in Teams, *Banff International Research Station*, Banff, Canada (with Carl Mueller [org.] and Kunwoo Kim)
 - (Jul 2017) *London Mathematical Society Durham Research Symposium*, Durham, UK (unable to go due to scheduling conflicts)
 - (Jul 2017) *Mathematical Congress of the Americas*, special session in “Nonlinear and Stochastic Partial Differential Equations,” Montreal, Canada (unable to go due to scheduling conflicts)
 - (Jun 2017) *6th Conference on Analysis, Probability and Mathematical Physics on Fractals*, Cornell Univ., Ithaca, NY (unable to go due to scheduling conflicts)
 - (Jun 2017) *Miniconference on Interacting Systems and Stochastic Partial Differential Equations*, Sheffield, UK (unable to go due to scheduling conflicts)
 - (May–Jun 2017) *Stochastic Analysis: Geometry of Random Processes*, Oberwolfach, Germany
 - (Apr 2017) Colloquium, POSTECH, Pohang, Korea (unable to go due to health problems)
 - (Apr 2017) Colloquium, University of Cincinnati, Cincinnati, Ohio (unable to go due to health problems)
 - (Mar 2017) *Warwick Workshop on Stochastic Analysis and Stochastic PDEs*, Coventry, UK (unable to go due to health problems)
 - (Jan 2017) *The Joint Mathematics Meeting*, special session on “Stochastic Processes and Modelling,” Atlanta, Georgia (unable to go due to scheduling conflicts)
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- (Dec 2016) *Lectures in Probability and Stochastic Processes XI*, Indian Statistical Institute, Delhi, India (8 lectures; with Mokshay Madiman)
 - (Nov 2016) *Workshop on Stable Processes*, Banff–Oaxaca (BIRS-CMO), Mexico (unable to go due to scheduling conflicts)
 - (Oct 2016) AMS conference in Denver. Special Session on *Nonlinear and Stochastic Partial Differential Equations*
 - (Jul 2016) *Trends in Probability*, The Fifth Latin-American Congress of Mathematicians (CLAM), Universidad del Norte, Barranquilla, Colombia (unable to go due to scheduling conflicts)
 - (Jul 2016) *4th Frontiers in Mathematical Sciences*, Sharif University, Iran (unable to go due to scheduling conflicts)
 - (Jul 2016) *11th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, special session on “Fractal Geometry, Dynamical Systems, and Their Applications,” Orlando, Florida (unable to go due to scheduling conflicts)
 - (Jun 2016) *Stochastic Differential Equations*, Universität Mannheim, Mannheim, Germany
 - (Jun 2016) *8th International Conference on Stochastic Analysis and Its Applications*, Beijing Institute of Technology, Beijing, China (unable to attend due to scheduling conflicts)
 - (May 2016) *Stochastic Partial Differential Equations*, Simon’s Center for Geometry and Physics, SUNY–Stony Brooke, New York
 - (May 2016) *New Developments in Probability*, Northwestern University
 - (Mar 2016) *12th German Probability & Stochastics Days*, Bochum, Germany (Keynote speaker in the

- stochastic calculus section)
- (Feb 2016) Probability Seminar, Duke University, Department of Mathematics
- (Jan 2016) *New Approaches to Non-Equilibrium and Random Systems: KPZ Integrability, Universality, Applications & Experiments*, Kavli Institute of Theoretical Physics, UC Santa Barbara
- (Jan 2016) Probability Seminar, UC Irvine, Department of Mathematics
- (Jan 2016) Probability Seminar, UC Santa Barbara, Department of Statistics and Applied Probability

Editorial Service (2013+ only)

- *Books & Book Series*
 - (Sep 2013–now) *Lecture Notes in Mathematics*, Springer–Berlin
Member of the Advisory Board
 - (Feb 2012–now) *Probability & Its Applications*, Springer–Basel
Series Editor (with S. Derreich, A. Kyprianou, & S. Resnick)
 - (Feb 2012–now) *Progress in Probability*, Springer–Basel
Series Editor (with A. Kyprianou & S. Resnick)
- *Research Journals*
 - (Feb 2020–Jan 2024) *Memoirs of the AMS*, Probability & Statistics Editor
 - (Feb 2020–Jan 2024) *Transactions of the AMS*, Probability & Statistics Editor
 - (Feb 2013–now) *Journal of Fractal Geometry*, AE
 - (May 2007–now) *Journal of Theoretical Probability*, AE
 - (Dec 2011–2017) *Annals of Probability*, AE
 - (Apr 2009–2012) *Stochastic Processes & Their Applications*, AE

Grants (2013+ only)

- (1997–2022) NSF individual research grant (co-PI: Yimin Xiao)
- (2019) NSF-funded conference, *Seminar on Stochastic Processes*
- (2018, 2016, 2014) NSF-funded conference, *Frontier Probability Days*
- (2017) *Some intermittency problems for parabolic SPDE* (with C. Mueller and K. Kim). Banff International Research Station Research Team

Professional Service (2015+ only)

- (Summer 2021) Member of the organizing committee for conference in honor of Jean Bertoin, Paris, France
- (Sep 2018 – Sep 2021) Member of the advisory committee of the Department of Applied Mathematics and Statistics, The Johns Hopkins University
- (Jan 2018 – Jan 2020) Member of the advisory committee of The University of Utah's *Continuing Education and Community Engagement*
- (Aug 2017 – Aug 2020) Institute of Mathematical Statistics, member of the Committee on Fellows
- (Apr 2017 – Aug 2020) Institute of Mathematical Statistics/Bernoulli Society, member of the joint Special Lectures Committee
- (2019) Member of the search committee for the director of the Scientific Computing Institute, The University of Utah
- (Nov 2019) Internal reviewer for the Department of English, University of Utah
- (Dec 2018 – Mar 2019, Jan 2015) Member of the NSF Graduate-Student Fellowship Panel
- (Jan 2018) Panelist for the National Defense Science and Engineering Graduate (NDSEG) Fellowship Program
- (Apr 2017) External reviewer for the Department of Mathematics at the University of Idaho
- (Mar 2017–2021) Foreign member of the Scientific Advisory Committee of *Summer School in Stochastic Analysis*, CRM [Barcellona]
- (Feb 2017; Jan 2012; Jan 2011; Jan 2009; Dec 2007; Dec 2001) Member of the NSF Panel for the Probability Grants Section
- (Oct 2015) US-NSF Core Mathematics CAREER panel member
- (1998–2015) Referee for various national and international research-funding agencies (Canada NSERC, Simons Foundation, Swiss NSF, US-Israel BSF, US NSA, US NSF)

- (Aug 2014–2015) IMS Committee on Electronic Issues, Chair

Conference Organization (2013+ only)

- (May 2020, Apr 2018, Apr 2016, May 2014) Co-organizer of *Frontier Probability Days*, member of the organizing committee
- (Mar 2019, Mar 2016, Mar 2015, Mar 2014) *Seminar on Stochastic Processes*, member of the long-term organizing committee
- (Nov 2016) *Workshop on Stable Processes*, Banff/Oaxaca (BIRS/CMO) Oaxaca, Mexico
- (Apr 2015) Special Session, *Topics in Stochastic Partial Differential Equations* AMS Western Sectional Meeting
- (Oct 2013) *École CIMPA et Conférence*, member of the scientific committee [France-Tunisia Summer School], Tunis, Tunisia
- (Jul 2013) The 36th Conference on *Stochastic Processes and Their Applications*, Boulder, CO. Member of the organizing committee
- (Apr 2012) Organizer of the 5-day workshop *Stochastic Analysis and Stochastic PDEs* at Banff Research Station [with R. Dalang and Y. Xiao]

Research Students (2006+ only)

- *PhD*
 - Mr. Conor Tillinghast (Utah) current
 - Dr. Weicong Su (PhD 2019, Utah) Data Scientist at *Bayer Crop Science*, Saint Louis, MI
 - Dr. Shiu-Tang Li (PhD 2017, Utah) Data Scientist for *Progressive Leasing*, Salt Lake City, UT
 - Dr. Pavel Bézdek (PhD 2016, Utah) VP Risk Analyst for *Citi*, Tampa, FL
 - Dr. Liang Zhang (PhD 2012, Utah) Software Engineer II for *Microsoft Corporation*, Seattle, WA
 - Dr. Pejman Mahboubi (PhD 2012, UCLA) VP at JP Morgan Chase & Co., Los Angeles, CA
 - Prof. Karim Khader (MStat 2008; PhD 2009, Utah) Research Assistant Prof., Univ. of Utah (Epidemiology)
 - Prof. Shang-Yuan Shiu (PhD 2010, Utah) NCU, Taiwan (Mathematics)
 - Dr. Michael Purcell (MStat 2009; PhD 2009, Utah) Research Analyst for US Government
- *MStat* [a partial list]
 - Mr. Premkumar Narayanan (2018)
 - Mr. Nicholas Stephenson (2018)
 - Ms. Kate Dodds (2016)
 - Ms. Yi Zhao (2015)
 - Mr. Benjamin Aldous (2014)
 - Mr. Zhi Wang (2014)
 - Ms. Jin Dai (2006)
 - Ms. Trang Le (2006)
- *BSc* [a partial list]
 - Mr. Winston Stucki (freshman reading course on M.C.; 2019)
 - Ms. Jane Moffatt (NSF REU 2018)
 - Ms. Wantong Du (NSF REU 2013–2015)
 - Ms. Breanne Chryst (NSF REU 2011–2012) now PhD candidate at Yale Statistics
 - Mr. Chris Robison (NSF REU 2010–2011) finished an MS in Mathematics and an MS in Computer Science at U of Utah
 - Dr. David LeDuc Valken Tucker (NSF REU 2010–2011) finished PhD at Harvard Biostat
 - Mr. Xiaokan Tong (NSF REU 2009–2010)
 - Mr. Parker Childs (NSF REU 2007) finished PhD at Utah Mathematics
 - Ms. Zsuzsanna Horváth (NSF REU 2006)
 - Mr. Benjamin Richards (NSF REU 2006)
 - Prof. David Seal (NSF REU/honor's thesis 2006) US Naval Academy (Mathematics)
 - Dr. E. McKay Hyde (Honor's thesis 2003) managing director of Market Risk Technology at the Goldman–Sachs Group, Inc.

Post-Doctoral and Visiting Scholars (current and former)

- Prof. Le Chen (2014–2015, Utah; now at UNLV & Temple)
- Prof. Daniel Conus (2009–2011, Utah; now at Lehigh U)
- Prof. Xia Chen (1999–2000, Utah; now at U Tennessee)
- Prof. Mohammud Foondun (2006–2009, Utah; now at Strathclyde U, UK)
- Prof. Nicos Georgiou (2011–2013, Utah, with F. Rassoula-Agha; now at Sussex, UK)
- Prof. Jingyu Huang (2015–2018, Utah; now at U. Birmingham, UK)
- Prof. Mathew Joseph (2009–2012, Utah, with F. Rassoula-Agha; now at ISI-Bangalore)
- Prof. Kunwoo Kim (2012–2015, Utah; now at POSTECH, Korea)
- Prof. Arjun Krishnan (2015–2017, Utah, with T. Alberts, J. Chaika, and F. Rassoul-Agha; now at U Rochester, NY)
- Prof. David Levin (2002–2005, Utah; now at U Oregon)
- Prof. Pedro Méndez (2001–2004, Utah; now at Universidad de Costa Rica)
- Dr. Fei Pu (2019–2022, Utah; current)
- Prof. Alex Ramos (2014–2015, Utah; now at Pernambuco, Brazil)
- Foundation Prof. Yimin Xiao (1996–1999, Utah, now at Michigan State U)

Research Collaborators

- Tom Alberts,
- Richard Bass, Istvan Berkes, Krzysztof Burdzy,
- Le Chen, Xia Chen, Daniel Conus, Michael Cranston, Endré Csáki,
- Robert Dalang, Yuri Davydof,
- Nathalie Eisenbaum, Stewart Ethier,
- Mohammud Foondun,
- Nicos Georgiou,
- Lajos Horváth, Yueyun Hu, Jingyu Huang,
- Mathew Joseph,
- Kunwoo Kim,
- David Levin, Thomas Lewis, Wenbo Li,
- Pejman Mahboubi, Pedro Méndez, Carl Mueller,
- David Nualart, Eulalia Nualart,
- Robin Pemantle, Yuval Peres, Fei Pu,
- Alexander Ramos, Pál Révész,
- Paavo Salminen, Anrey Sarantsev, René Schilling, Zhan Shi, Narn-Rueih Shieh, Shang-Yuan Shiu, Jason Swanson,
- Edward Waymire, Marc Wouts, Donsheng Wu,
- Yimin Xiao,
- Marc Yor,
- Liang Zhang, Tusheng Zhang, Yuquan Zhong, Ricardas Zitikis.

Select Publications

- *Books:*
 - *Calculus In Gauss Space: An Introduction to Gaussian Analysis* (in preparation; with Tom Alberts)
 - *From Lévy-type Processes to Parabolic SPDEs*, Advanced Courses in CRM-Barcelona, CRM-Birkhäuser, Basel, 2017 (with René Schilling. Editors: Frederic Utzet and Lluís Quer-Sardanyons)
 - *Analysis of Stochastic Partial Differential Equations*, CBMS Regional Conference Series in Mathematics **119**, American Mathematical Society, Providence, RI, 2014
 - *A Minicourse on Stochastic Partial Differential Equations*, Springer-Verlag, Berlin, 2008 (Editor and chapter author; coeditor: Firas Rassoul-Agha; other chapter authors: Robert Dalang; Carl Mueller; David Nualart; and Yimin Xiao)
 - *Probability*, American Mathematical Society, Graduate Textbooks in Mathematics, Providence, Rhode Island, 2007
 - *Multiparameter Processes: An Introduction to Random Fields* Springer-New York, NY, 2002

◦ *Preprints and manuscripts accepted and/or in press*

(copies available at <http://www.math.utah.edu/davar/publications.html>):

- Spatial ergodicity for SPDEs via Poincaré-type inequalities (40 pages; with Le Chen, David Nualart, and Fei Pu)
- Dissipation in parabolic SPDEs (32 pages; to appear in the *Electr. J. Probability*, with Kunwoo Kim, Carl Mueller, and Shang-Yuan Shiu)
- Analysis of a stratified Kraichnan model (84 pages; with Jingyu Huang)

◦ *Published manuscripts* (2015+ only):

- Dense blowup for parabolic SPDEs, *Electronic J. Probab.* (2019) Paper No. 118, 33 pp. (with Le Chen, Jingyu Huang, and Kunwoo Kim)
- Talagrand concentration inequalities for stochastic partial differential equations, *Stochastic and Partial Differential Equations: Analysis & Computation* (2019) **7(4)**679–698. (with Andrey Sarantsev)
- Global solutions to reaction-diffusion equations with super-linear drift and multiplicative noise, *Annals of Probability* (2019) **47(1)** 519–559. (with Robert C. Dalang and Tusheng Zhang)
- The dimension of the range of a random walk, *Electronic Journal of Probability* (2018) **23(83)** 1–31 (with Nicos Georgiou, Kunwoo Kim, and Alex D. Ramos)
- A macroscopic multifractal analysis of parabolic stochastic PDEs, *Communications in Mathematical Physics* (2018) **360** 307–346 (with Kunwoo Kim and Yimin Xiao)
- A conversation with Mu-Fa Chen, *Notices of the American Mathematical Society* (2017) **64(6)** 616–619 (with Edward Waymire)
- On the multifractal local behavior of parabolic stochastic PDEs, *Electronics Communication in Probability* (2017) **49** 11 pp. (with Jingyu Huang)
- Intermittency and multifractality: A case study via stochastic PDEs, *Annals of Probability* (2017) **45(6A)** 3697–3751 (with Kunwoo Kim and Yimin Xiao)
- On the macroscopic fractal geometry of some random sets In: *Stochastic Analysis and Related Topics*, 179–206, *Progr. Probab.* **72**, Birkhäuser/Springer, Cham, 2017 (with Yimin Xiao)
- A boundedness trichotomy for the stochastic heat equation, *Annales de l'Institut Henri Poincaré* (2017) **53(4)** 1991–2004 (with Kunwoo Kim and Le Chen)
- Strong invariance and noise comparison principles for some parabolic SPDEs, *Annals of Probability* (2017) **45(1)** 1–27 (with Mathew Joseph and Carl Mueller)
- Dissipation and high disorder, *Annals of Probability* (2017) **45(1)** 82–99 (with Le Chen, Michael Cranston, and Kunwoo Kim)
- Decorrelation of total mass via energy, *Potential Analysis* (2016) **45** 157–166 (with Le Chen and Kunwoo Kim)
- Semi-discrete semi-linear parabolic SPDEs, *Annals of Applied Probability* (2015) **25(5)** 2959–3006 (with Nicos Georgiou, Mathew Joseph, and Shang-Yuan Shiu)
- Non-linear noise excitation of intermittent stochastic PDEs and the topology of LCA groups, *Annals of Probability* (2015) **43(4)** 1944–1991 (with Kunwoo Kim)
- Non-linear noise excitation and intermittency under high disorder, *Proceedings of the American Math. Society* (2015) **143(9)** 4073–4083 (with Kunwoo Kim)
- Analysis of the gradient of the solution to a stochastic heat equation via fractional Brownian motion, *Stochastic Partial Differential Equations: Analysis & Computation* (2015) **3(2)** 133–158 (with Mohammud Foondun and Pejman Mahboubi)
- Brownian motion and thermal capacity, *Annals of Probability*, Vol. 43, No. 1 (2015) 405–434 (with Yimin Xiao)