

February 2019

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EDUCATION

Ph.D., January 2003 New York University, Courant Institute of Mathematical Sciences
M.S., May 1999 New York University, Courant Institute of Mathematical Sciences
Magistère, June 1996 École Normale Supérieure de Cachan, Paris
Agrégation, June 1996 École Normale Supérieure de Cachan, Paris

POSITIONS HELD

2014 - **Professor.** University of Utah, Department of Mathematics
Research interests: Probability theory, stochastic processes, random media, disordered systems, statistical mechanics, mathematical physics, stochastic climate and weather models, mathematical biology

2009 - 2014 **Associate Professor.** University of Utah, Department of Mathematics

2005 - 2009 **Assistant Professor.** University of Utah, Department of Mathematics

2004 - 2005 **Postdoctoral Researcher.** Ohio State Univ., Mathematical Biosciences Institute

2002 - 2004 **Visiting Assistant Professor.** Ohio State University, Department of Mathematics

1997 - 2002 **Research and Teaching Assistant.** New York University, Courant Institute

BOOKS, LECTURE NOTES, REVIEW ARTICLES, AND PROCEEDINGS

7. I. Corwin, M. Damron, J. Hanson, F. Rassoul-Agha, T. Seppäläinen, and P. Sosoe. Random growth models. Ed. by M. Damron, F. Rassoul-Agha, and T. Seppäläinen. *Proceedings of Symposia in Applied Mathematics*, **75**, 2018
6. F. Rassoul-Agha. Busemann functions, geodesics, and the competition interface for directed last-passage percolation. *Lecture notes for the 2017 AMS short course on random growth models*, 2017
5. M. Damron, F. Rassoul-Agha, T. Seppäläinen. Random growth models. *Notices of the AMS*, **63**, 1004-1008, 2016
4. M. Damron, F. Rassoul-Agha, T. Seppäläinen. AMS short course in Atlanta, GA. *Notices of the AMS*, **63**, 1087-1090, 2016
3. F. Rassoul-Agha, T. Seppäläinen. A course on large deviation theory with an introduction to Gibbs measures. *Graduate Studies in Mathematics*, **162**, American Mathematical Society, Providence, 2015
2. R.C. Dalang, D. Khoshnevisan, C. Mueller, D. Nualart, Y. Xiao. A minicourse on stochastic partial differential equations, 2006. Ed. by D. Khoshnevisan and F. Rassoul-Agha. *Lect. Notes in Math* 1962. Springer, Berlin, 2009
1. D. Conus, D. Khoshnevisan, F. Rassoul-Agha. Introduction to probability. Lecture notes used for undergraduate probability, constantly updated

PAPERS

28. C. Janjigian and F. Rassoul-Agha. Uniqueness and ergodicity of stationary directed polymer models on the square lattice. Submitted, 2018
27. C. Janjigian and F. Rassoul-Agha. Busemann functions and Gibbs measures in directed polymer models on \mathbb{Z}^2 . Submitted, 2018
26. M. Joseph, F. Rassoul-Agha, and T. Seppäläinen. Independent particles in a dynamical random environment. To appear in a Special Proceedings Volume in honor of Raghu Varadhan's 75th birthday, 2018
25. M. Balázs, F. Rassoul-Agha, and T. Seppäläinen. Large deviations and wandering exponent for random walk in a dynamic beta environment. To appear in *Ann. Probab.*, 2018
24. K. Smith, C. Strong, and F. Rassoul-Agha. Multisite generalization of the SHaRP weather generator. *J. Appl. Meteor. Climatol.*, **57**, 2113-2127, 2018

23. N. Georgiou, F. Rassoul-Agha, and T. Seppäläinen. Geodesics and the competition interface for the corner growth model. *Probab. Th. Relat. Fields.* **169**, 223-255, 2017
22. N. Georgiou, F. Rassoul-Agha, and T. Seppäläinen. Stationary cocycles and Busemann functions for the corner growth model. *Probab. Th. Relat. Fields.* **169**, 177-222, 2017
21. F. Rassoul-Agha, T. Seppäläinen, and A. Yılmaz. Averaged vs. quenched large deviations and entropy for random walk in a dynamic random environment. *Electron. J. Probab.* **22**, 1-47, 2017
20. K. Smith, C. Strong, and F. Rassoul-Agha. A new method for generating stochastic simulations of air temperature. *J. Appl. Meteor. Climatol.* **56**, 953-963, 2017
19. F. Rassoul-Agha, T. Seppäläinen, and A. Yılmaz. Variational formulas and disorder regimes of random walks in random potentials. *Bernoulli*, **23**, 405-431, 2017
18. N. Georgiou, F. Rassoul-Agha, and T. Seppäläinen. Variational formulas and cocycle solutions for directed polymer and percolation models. *Commun. Math. Phys.*, **346**, 741-779, 2016
17. N. Georgiou, F. Rassoul-Agha, and T. Seppäläinen, and A. Yılmaz. Ratios of partition functions for the log-gamma polymer. *Ann. Probab.*, **43**, 2282-2331, 2015
16. A. Borisyuk and F. Rassoul-Agha. Quasiperiodicity and phase locking in stochastic circle maps: a spectral approach. *Phys. D: Nonlinear Phenomena*, **288**, 30-44, 2014
15. F. Rassoul-Agha and T. Seppäläinen. Quenched point-to-point free energy for random walks in random potentials. *Probab. Th. Relat. Fields*, **158**, 711-750, 2014
14. D. Campos, A. Drewitz, A.F. Ramírez A.F., F. Rassoul-Agha, and T. Seppäläinen. Level 1 quenched large deviation principle for random walk in dynamic random environment. *Bull. Inst. Math. Acad. Sin.*, **8**, 1-29. Special Issue in honor of the 70th birthday of Raghu Varadhan, 2013
13. F. Rassoul-Agha, T. Seppäläinen, and A. Yılmaz. Quenched free energy and large deviations for random walks in random potentials. *Comm. Pure Appl. Math.*, **66**, 202-244, 2013
12. M. Joseph, F. Rassoul-Agha. Almost sure invariance principle for continuous-space random walk in dynamic random environment. *ALEA Lat. Am. J. Probab. Math. Stat.*, **8**, 43-57, 2011
11. F. Rassoul-Agha, T. Seppäläinen. Process-level quenched large deviations for random walk in random environment. *Ann. Inst. H. Poincaré Probab. Stat.*, **45**, 214-242, 2011
10. F. Rassoul-Agha, T. Seppäläinen. Quenched invariance principle for ballistic random walk in random environment. *Ann. Inst. H. Poincaré Probab. Stat.*, **45**, 373-420, 2009
9. F. Rassoul-Agha, T. Seppäläinen. An almost sure invariance principle for additive functionals of Markov chains. *Statist. Probab. Lett.*, **78**, 854-860, 2008
8. M. Balázs, F. Rassoul-Agha, T. Seppäläinen, S. Sethuraman. Existence of the zero range process and a deposition model with superlinear growth rates. *Ann. Probab.*, **35**, 1-31, 2007
7. F. Rassoul-Agha, T. Seppäläinen. Quenched invariance principle for multidimensional ballistic random walk in random environment with a forbidden direction. *Ann. Probab.*, **35**, 1209-1249, 2007
6. M. Balázs, F. Rassoul-Agha, T. Seppäläinen. The random average process and random walk in a space-time random environment in one dimension. *Commun. Math. Phys.*, **266**, 499-545, 2006
5. F. Rassoul-Agha, T. Seppäläinen. Ballistic random walk in random environment with a forbidden direction. *ALEA Lat. Am. J. Probab. Math. Stat.*, **1**, 111-147, 2006
4. F. Rassoul-Agha, T. Seppäläinen. An almost sure invariance principle for random walks in a space-time random environment. *Probab. Th. Relat. Fields*, **133**, 299-314, 2005
3. F. Rassoul-Agha. On the zero-one law and the law of large numbers for a random walk in a mixing random environment. *Electron. Comm. in Probab.*, **10**, 36-44, 2005
2. F. Rassoul-Agha. Large deviations for random walks in a mixing random environment and other (non-Markov) random walks. *Comm. Pure Appl. Math.*, **57**, 1178-1196, 2004
1. F. Rassoul-Agha. The point of view of the particle on the law of large numbers for random walks in a mixing random environment. *Ann. Probab.*, **31**, 1441-1463, 2003

CONFERENCES (since 2014)

July 2019	Brazilian School of Probability, São Carlos. <i>Speaker</i>
March 2019	Seminar on Stochastic Processes, University of Utah. <i>Organizer</i>
October 2018	Midwest Probability Colloquium, Northwestern University. <i>Speaker</i>
June 2018	Recent Trends in Continuous and Discrete Probability, Georgia Tech. <i>Speaker</i>
March 2018	Frontier Probability Days, Oregon State University. <i>Organizer</i>

April 2017	Qualitative Methods Around KPZ, CIRM, Lumini, Marseille. <i>Speaker</i>
January 2017	Mini Course on Random Growth Models, National AMS Meeting, Atlanta. <i>Organizer and Speaker</i>
May 2016	Frontier Probability Days, University of Utah. <i>Organizer</i>
August 2016	Raghu Varadhan' 75th Birthday conference, Berlin Technical University. <i>Speaker</i>
October 2015	AMS Central Fall Sectional Meeting, Loyola University. <i>Speaker</i>
August 2015	First Passage Percolation and Related Models, AIM. <i>Speaker</i>
May 2015	Random Polymers and Algebraic Combinatorics, Clay Math Institute, Oxford.
April 2015	Random Motion in Random Media, Eurandom, Eindhoven. <i>Speaker</i>
October 2014	AMS Western Fall Sectional Meeting, San Francisco State University. <i>Speaker</i>
May 2014	Frontier Probability Days, University of Arizona. <i>Organizer and Speaker</i>

AWARDS

2014 - 2015	Simons Foundation Fellowship.
2008 - 2015	NSF CAREER Award. Random Walk in Random Environment
Fall 2001 - Spring 2002	Dean's dissertation fellowship. New York University
Fall 1997 - Spring 2001	Teaching and Research Assistantship. Courant Institute, New York University
Summer 1999 and 2000	Research Assistantship. Courant Institute, New York University

GRANTS

2019	National Science Foundation. Support for "Seminar on Stochastic Processes", University of Utah, March 2019.
2018 - 2021	National Science Foundation. Random Polymer Measures
2018	National Science Foundation. Support for "Frontier Probability Days", Oregon State University, March 2018.
2016	National Science Foundation. Support for "Frontier Probability Days", University of Utah, May 2016.
2014 - 2018	National Science Foundation. Random Polymer Measures.
2014 - 2015	Simons Foundation Fellowship.
2014	National Science Foundation. Support for "Frontier Probability Days", Univ. of Arizona, May 2014.
2008 - 2015	NSF CAREER Award. Random Walk in Random Environment
2005 - 2008	National Science Foundation. Stochastic Interactions between Particles and Environments. Joint with M. Balázs, University of Wisconsin-Madison.

PROFESSIONAL ACTIVITIES

2015 -	Associate Editor. Electron. J. Probab., Electron. Comm. Probab.
March 2019	Organizer. Seminar on Stochastic Processes. Department of Mathematics, U Utah
March 2018	Organizer. Frontier Probability Days. Department of Mathematics, Oregon State U
January 2017	Organizer. Course on Random Growth Models, National AMS Meeting, Atlanta.
May 2016	Organizer. Frontier Probability Days. Department of Mathematics, U Utah
May 2014	Organizer. Frontier Probability Days. Department of Mathematics, U Arizona
2006 - 2012	Organizer. Stochastics Seminar. Department of Mathematics, U Utah
May 2011	Organizer. Random Environments. Department of Mathematics, Cornell U
March 2009/2011	Organizer. Frontier Probability Days. Department of Mathematics, U Utah
2010	Speaker. Science Night Live. College of Science, U Utah
2009 - 2013	Course Coodinator. <i>Math 1070 (Introductory Statistics)</i>
2011 - 2013	MStat Committee Member. <i>Math Track Representative</i>
2006 - present	Departmental Committee Member. <i>College Retention and Tenure, Executive, Hiring, Instructorship, Graduate, Statistics Search, Undergraduate Curriculum, Library</i>

- October 2006 **Organizer.** Special Session on Random Motion in Random Media, AMS Sectional meeting. Department of Mathematics, U Utah
- July 2006 **Organizer.** A Minicourse on Stochastic Partial Differential Equations. Department of Mathematics, U Utah
- 2002 - present **Referee.** *Comm. Pure Appl. Math., Ann. Probab., Ann. Appl. Probab., Probab. Th. Relat. Fields, Commun. Math. Phys., J. Eur. Math. Soc., J. Appl. Probab., Proc. R. Soc., Ann. Inst. H. Poincaré, Electron. Comm. Probab., Electron. J. Probab., Stoch. Proc. Appl., Ser. A, J. Stat. Phys., J. Mat. Phys., Mathematical Reviews*
- 2003 - present **Grant Reviewer.** ICTP, NSF, AMS/NSA, Simons Foundation
- 2002 - 2003 **Organizer.** Probability Journal Club. Courant Institute, New York University
- 2001 - 2002 **Organizer.** Student/Postdoc Seminar. Courant Institute, New York University

STUDENTS

- 2016- Sergazy Nurbavliyev (Ph.D.)
- 2015-2016 Yushan Gu (REU)
- 2015-2016 Laurel Baeder (M.Stat.)
- 2011-2016 Tony Lam (Ph.D.)
- 2014-2015 Hanlei Zhu (M.Stat.)
- 2013-2014 Aurora Jensen (M.Stat.)
- 2013-2014 Wuxin Yang (UROP)
- 2012-2013 Derek Doel (M.Stat.)
- 2009-2012 Anna Schoening (Ph.D.)
- 2012 Kate Roylance (REU)
- 2010-2011 Jim Sferas (M.Stat.)
- 2011 Keyang Zhang (UROP)
- 2009 Ning Xie (UROP)
- 2008 Yunhye Chu, David Grimshaw, Michael Parker, Tyler Peterson, Nathan Simonsen (REU)
- 2007-2008 Zsuzsanna Horváth (M.Sci.)

POSTDOCTORAL FELLOWS

- 2017- Christopher Janjigian
- 2014-2017 Arjun Krishnan (now Assistant Professor at the University of Rochester)
- 2011-2014 Nicos Georgiou (now Senior Lecturer at the University of Sussex)
- 2009-2012 Mathew Joseph (now Associate Professor at the Indian Statistical Institute in Bangalore)

TEACHING EXPERIENCE (University of Utah)

Special Topics in Probability (Random Walk in Random Environment, Large Deviations, Random Polymer Measures), Graduate Statistics, Graduate Probability, Stochastic Processes and Simulation, Linear Models, Statistical Inference, Basic Probability, Introductory Statistics