

Curriculum Vitae

Jeffrey E. Steif

Personal Data

Address: Mathematical Sciences
Chalmers University of Technology
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Birth: February 7, 1960, Plainfield, New Jersey

Sex: Male

Nationality: United States

Languages: English, Swedish

Positions

December, 1998-present: Professor (Swedish: Professor)
Chalmers University of Technology

2001-2003: Professor
Georgia Institute of Technology
(Resigned from this position: effective December, 2003).

1999-2001: Associate Professor
Georgia Institute of Technology

1995-1998: Professor (Swedish: Biträdande Professor)
Chalmers University of Technology

1995-2001: Senior Research Position/Fellowship in Probability
(Swedish: forskartjänst i sannolikhetsteori)
(supported by the Swedish Natural Science Research Council)

1994-1995: Associate Professor (Swedish: Docent)
Chalmers University of Technology

- 1991–1994: Tenured Assistant Professor (Swedish: högskolelektor)
Chalmers University of Technology
- 1989–1991: Postdoctoral position, Cornell University
- 1988–1989: Postdoctoral position, Rutgers University

Degrees

Docent Mathematical Statistics, Chalmers University of Technology, 1994.

Ph.D. Mathematics, Stanford University, 1988.

Thesis Advisor: Donald Ornstein

M.S. Mathematics, Stanford University, 1985.

B.A. Mathematics, Rutgers University, 1982.

Research Interests

Probability Theory, Ergodic Theory, Statistical Mechanics

Elected Memberships

I am an elected member of "The Royal Swedish Academy of Sciences" since fall, 2013.

I am an elected member of "The Royal Society of Arts and Sciences in Gothenburg" since January, 2020.

Prizes

Göran Gustafsson Prize in mathematics (2004).

(Since 1991, this prize has been given out every year to one person in each of mathematics, physics, chemistry, molecular biology and medicine by the Royal Swedish Academy of Sciences to a Swedish university scientist; the prize is for 4.5 million Sek.)

The Eva and Lars Gårdings prize in Mathematics (2011).

(This prize is awarded by the Royal Physiographic Society in Lund.)

Fellowships

- 1995–2001: Senior Research Position/Fellowship in Probability
(supported by the Swedish Natural Science Research Council)
- 1988–1991: National Science Foundation (NSF) Postdoctoral
Research Fellowship in Mathematics
- 1989–1991: Mathematical Sciences Institute (MSI) Fellowship
(Cornell University)
- 1988: National Science Foundation NATO
Postdoctoral Fellowship (awarded but declined)
- 1987–1988: Alfred P. Sloan Dissertation Fellowship

Grants:

- 2021-2024: A grant from the Swedish Research Council (VR) for 3.2 million Sek
(single main applicant).
- 2017-2020: A grant from the Swedish Research Council (VR) for 3.35 million
Sek (single main applicant).
- 2013-2017: One of 5 co-applicants for a grant from the Knut and Alice Wallen-
berg Foundation for 50.324 million Sek.
- 2013-2016: A grant from the Swedish Research Council (VR) for 3.2 million Sek
(single main applicant).
- 2010-2012: A grant from the Swedish Research Council (VR) for 2.26 million
Sek (single main applicant).
- 2008-2010: Co-applicant for a grant (“ramanslag”) from the Swedish Research
Council (VR) for 3 million Sek (obtained as a co-applicant jointly
with 4 other people to be used over 3 years.)

2005-2009: Co-applicant for a grant (“Strong research environment”) from the Swedish Research Council (VR) for 22 million SEK (obtained as a co-applicant jointly with 4 other people to be used over 5 years.)

2005-2007: Co-applicant for a grant (“ramanslag”) from the Swedish Research Council (VR) for 7.1 million SEK (obtained as a co-applicant jointly with 4 other people to be used over 3 years.)

2003-2005: Co-applicant for a grant from the Swedish Research Council (VR) for 4.7 million SEK including an “excellence” award (obtained as a co-applicant jointly with 2 other people.)

2001-2003: 3 year (NSF) grant from the (American) National Science Foundation (single main applicant).

1992-2001: Supported (as single main applicant) continually during this period by various grants from the Swedish Natural Science Research Council (NFR).

Invited Professor Position

One month, 1998: Invited professor to the Probability Laboratory at Paris VI.

One month, 2006: Invited professor to the Probability Laboratory at Paris VI.

One month, 2020: Invited professor to the Ecole Normale Supérieure (cancelled due to COVID).

Visiting Researcher Position

Visiting Researcher, Theory Group, Microsoft Research 2012-2013.

Editorial work

Associate Editor for the Annals of Applied Probability, 1997-2002.

Associate Editor for the Annals of Probability, 2001-2005.

Associate Editor for Electronic Journal of Probability and Electronic Communications in Probability, 2007-2011.

Associate Editor for Bernoulli, 2008-2009.

Associate Editor for Arkiv for Matematik, 2009-2014.
Frequent referee for a number of journals.

Special Evaluation Tasks

Faculty opponent for the Ph.D. defense of Stefan Svanberg, May 7, 1997.
Faculty opponent for the Ph.D. defense of Örjan Stenflo, May 22, 1998.
Outside expert for the appointment of a Professorship at University of Jyväskylä, Finland, January, 1999.
Evaluator for the Habilitationsschrift of Heinrich Matzinger.
Evaluator for the Habilitationsschrift of Silke Rolles.
Evaluator for the thesis of Christophe Garban (student of Wendelin Werner) Fall, 2008.
Wallenberg prize committee (2007-2009).
Outside expert for two professor promotions (T. Kaijser and T. Turova).
Member of the review panel for evaluating proposals for the Academy of Finland, 2009
Faculty opponent for the Ph.D. defense of Jacob Björnberg, November 18, 2009.
Evaluation committee for 7 Swedish Ph.D. theses.

Panel membership

Member of the Steering committee for "Interacting Stochastic Systems" program at EURANDOM situated in the Netherlands.

Conference Organizational work

Co-organizer for 2 month program and Conference on the topic "Percolation, Particle Systems and Ergodic Theory", Chalmers University of Technology, Gothenburg, Sweden, fall 1997.
Session organisor for the 2001 IMS Joint Statistical Meetings.
Co-organizer for "Workshop on Stochastic-geometric and combinatorial ideas in statistical mechanics" to be held in Gothenburg, Sweden in summer 2004.
Co-organizer for a conference celebrating Donald Ornstein to be held in California in summer 2004.
Session organisor for the Sixth Bernoulli World Congress and IMS Annual Meeting, Barcelona, 2004.
Member of the scientific programme committee for the 25th European Meeting of Statisticians, Oslo, 2005.
Coorganizer for the Mittag Leffler Program in discrete probability, spring, 2009.
Session organizer for a probability session, 25th Nordic and 1st British-Nordic Congress

of Mathematicians, 2009

Member of the scientific programme committee for the IMS conference Gothenburg, 2010.

Membership in professional organizations

American mathematics society

Institute for mathematical statistics

Svenska Matematikersamfundet

Teaching Activities

undergraduate courses: first semester and second semester Calculus
(Stanford University)
queuing theory for computer scientists (twice)
(Chalmers University)
stochastic processes
(Chalmers University)
special topics in probability (random walks and graphs)
(Chalmers University)
Discrete Mathematics
(Chalmers University)
Topology
(Chalmers University)
Integration theory (real analysis)
(Chalmers University)

graduate courses: Percolation, Particle Systems and Statistical Mechanics
(Chalmers University)
Ergodic Theory (Chalmers University)
Information Theory (Chalmers University)
Brownian motion, capacity, and intersection properties
(Chalmers University)
Finite state Markov chains (Chalmers University)
Graph theory (Chalmers University)
Percolation theory (Georgia Institute of Technology)
Classical Probability theory (Georgia Institute of Technology)
Probability theory I (Georgia Institute of Technology)
Geometric measure theory (Chalmers University)
Game theory (Chalmers University)
Interacting particle systems (Chalmers University)

Percolation theory (Chalmers University)
 Brownian motion (Chalmers University)
 Noise sensitivity (Chalmers University)
 Topology
 (Chalmers University)
 Integration theory (real analysis) (Chalmers University)

Invited courses for Ph.D. students/young researchers

Finnish summer school on probability theory (2004).
 Dutch school on probability theory (2005).
 The Jyväskylä Summer School (2009).
 2010 Clay summer school in Brazil (2010).
 Spring school in discrete probability, ergodic theory and combinatorics, Graz (2011).
 St. Flour summer school in probability, France (2012).

Lecture notes written (for doctoral courses)

Percolation, Particle Systems, and Statistical Mechanics
 Ergodic Theory
 Information Theory
 Integration Theory
 Jordan's Theorem on sharp k -transitivity for permutation groups and the five Mathieu simple sporadic groups.

Completed Ph.D. students

Malin Palö Forsström (2019)
 Ragnar Freij (2012) (joint advisor together with Johan Wästlund)
 Marcus Isaksson (2010)
 Marcus Warfheimer (2010)
 Erik Broman (2006)
 Olle Häggström (1994)

Licentiate students

Malin Palö Forsström (2015)
 Marcus Isaksson (2009)
 Marcus Warfheimer (2008)
 Mattias Wallerstedt (1999)

Karin Nelander (1996)
Erik Broman (2004)
Olle Häggström (1993)

Undergraduate thesis advising, both candidate level and masters level

Anders Mustza
Cecilia Holmgren
Oskar Hamlet and Martin Vannestal
Johanna Berggren and Sonny Johansson
Behrang Mahjani
Anton Ålgmyr and Björn Martinsson (2019)
Wilhelm Agdur (2019)
Stefan Eng (2020)
Björn Söderstedt (2020)
Lorents Landgren (2021)
Victor Fingal and Jonas H ögberg (2021)
Julia Janson (2022)

Special Invited Lectures

- 2018: “Mixing times for random walks on dynamical percolation”, Doob lecture (plenary lecture), Stochastic Processes and their applications, 2018.
- 2017: “Generalized Divide and Color Models”, Conference celebrating Russ Lyons’ 60th birthday 2017.
- 2016: “Noise Sensitivity of Boolean Functions and Critical Percolation”, Colloquium, Royal University of Technology 2016.
- 2013: “Strong Noise Sensitivity and Random graphs”, Workshop on Functional Inequalities in Discrete Spaces with Applications, Simons Institute for the Theory of Computing, 2013.
- 2012: “Boolean Functions, Noise Sensitivity, Influences and Percolation”, The Birnbaum Lecture in Probability, Northwest Probability Seminar 2012, Washington, 2012.
- 2011: “Fractals arising in Percolation”, Fractals and Related Fields II, Porquerolles Island, France, 2011.

- 2010: “Noise and Exclusion Sensitivity”, Combinatorics and Analysis in Spatial Probability, Eurandom, The Netherlands, 2010.
- 2010: Clay Mathematics Institute Summer School on Probability and Statistical Physics in Two and more Dimensions, Buzios, Brazil, 2010.
Course given jointly with Christophe Garban on “Noise-sensitivity and percolation”
- 2010: Fifth Workshop on Random Graphs and Randomized Algorithms, Bertinoro, Italy, 2010.
“Noise sensitivity and algorithms”
- 2009: Conference/school in memory of Oded Schramm, Jerusalem, 2009 (2 lectures, part of a 4 lecture course given with Christophe Garban)
“Dynamical percolation and noise sensitivity”
- 2009: New random geometries, Bath, 2009
“Dynamical models of circle coverings”
- 2009: Closing Lecture at the European meeting of statisticians, Toulouse, 2009
“An overview of percolation theory and its recent developments”
- 2009: Conference in honor of Tom Liggett, Peking, 2009
“Dynamical models of circle coverings”
- 2008: 100th statistical mechanics conference, Rutgers University
“Stochastic Domination for Ising models and other processes”
- 2008: Hypathie seminar, Marseille
“Dynamical Percolation”
- 2008: Interacting particle systems and Percolation workshop, Paris
- 2008: Fractal Geometry and Stochastics conference, Greifswald
“Dynamical Percolation”
- 2007: Stochastic processes and algorithms workshop, Bonn
“Dynamical sensitivity of the infinite cluster in critical percolation”
- 2007: Park City Mathematics Institute/Institute of Advanced studied program in statistical mechanics,
“Dynamical sensitivity of the infinite cluster in critical percolation”
- 2007: Phase Transitions Workshop, Georgia Institute of Technology, Atlanta
“Stochastic domination and the Ising model”

- 2006: Danish Meeting on Theoretical Statistics
“An overview of a part of Wendelin Werner’s work”
- 2006: 31st Conference on Stochastic Processes and their Applications, Paris,
Section on Spatial stochastic processes,
“Critical Dynamical Percolation, exceptional times and harmonic analysis
of Boolean functions”.
- 2006: International Vilnius conference on Probability Theory and Statistics, Sec-
tion on percolation, Vilnius
“Critical Dynamical Percolation, exceptional times and harmonic analysis
of Boolean functions”.
- 2005: Interacting Stochastic Systems (conference in honor of Frank den Hollan-
der), Einhoven
“Critical Dynamical Percolation, exceptional times, and harmonic analysis
of boolean functions”
- 2005: One-Day Meeting in Combinatorics, London
“An application of analysis to theoretical computer science: Coin flipping
protocols”.
- 2004: Dynamical Systems, Probability Theory and Statistical Mechanics (con-
ference in honor of Mike Keane), Einhoven
“The very many faces of the T T -inverse process”.
- 2004: German open conference on probability and statistics, Karlsruhe
“Coin flipping protocols”.
- 2002: Colloquium at the Isaac Newton Institute, Cambridge
“An overview of certain phase transitions”.
- 2002: Workshop on discrete probability, Einhoven:
Stationary Determinantal Processes.
- 2001: Symposium on probability and algorithms, Stockholm:
An overview of the hard core model.
- 2001: Paul Erdos Lecture Series, Memphis
“Which properties of a random sequence are dynamically sensitive?”.
- 2000: 29th annual Meeting of Dutch Statisticians and Probabilists, Lunteren
“ T, T^{-1} -process, finitary codings and weak Bernoulli” and
“Dynamical sensitivity of randomness”. (2 lectures)

- 2000: AMS meeting, Toronto:
 T, T^{-1} -process, finitary codings and weak Bernoulli.
- 2000: AMS meeting, Toronto:
Dynamical sensitivity of randomness.
- 2000: Meeting on Phase transitions, probability theory and computational complexity, Cortona
The Ising Model with External Field on Diluted Graphs.
- 1999: Third Ukrainian-Scandinavian conference on Probability and Mathematical Statistics, Kiev
“Robust phase transitions and the rotor model in statistical mechanics on trees”.
- 1999: Mark Kac’s lecture series, The Netherlands
“3 lectures on Various Aspects of Phase Transitions”.
- 1999: AMS meeting, Charlotte:
A Survey of Subshifts of Finite Type and Measures of Maximal Entropy.
- 1999: The 52nd session of the International Statistical Institute, “Probability on trees” session, Helsinki.
Robust Phase Transitions for the Heisenberg Model on General Trees.
- 1999: Conference on Statistical Mechanics, Eurandom, The Netherlands
Robust Phase Transitions for the Heisenberg Model on General Trees.
- 1999: Workshop on Combinatorial Methods for Statistical Physics Models, Atlanta
Amenability and nonamenability of graphs and connections with Ising and other models.
- 1998: Uppsala-Stockholm Symposium in Mathematical statistics
Amenability and nonamenability of graphs and its significance in probability theory.
- 1998: Stochastics Day, Erlangen University
“Robust phase transitions and the rotor model in statistical mechanics on trees”.
- 1997: Applied Probability Day, Center for Applied Probability at Columbia University:
“Phase Transitions for Markov Random Fields: Some Results and Open Questions”.

- 1997: Statistical Physics Methods in Discrete Probability
Combinatorics and Theoretical Computer Science, Dimacs:
Phase Transitions for Markov Random Fields: Some Results and Open
Questions.
- 1995: Workshop on Probability and Physics, the Netherlands:
Mixing Conditions and Percolation for Random Fields.
- 1994: Nordic Statistical Meeting, Lund, Sweden:
“Some Random Spatial Processes”.
- 1994: Annual AMS meeting, San Francisco:
Combinatorial Aspects of Measures of Maximal Entropy.
- 1994: Workshop on ergodic theory and statistical mechanics, Warwick, England:
The Threshold Voter Automaton at a Critical Point.
- 1992: Workshop on Symbolic Dynamics, MSRI, Berkeley:
Nonuniqueness of Measures of Maximal Entropy for Subshifts of Finite
Type.

**Seminar/Colloquium Invitations and Conference Talks (not a complete
list)**

Symposium on Dynamical Systems (Helsinki)
Ergodic Theory Conference (Yale University)
Delft University of Technology (Holland) (2 talks)
Statistical Mechanics Conference (Rutgers University)
McMaster University (Hamilton, Canada)
AMS Meeting (Amherst, Massachusetts)
2nd World Congress of the Bernoulli Society (Uppsala, Sweden)
Ergodic theory workshop (Seattle, Washington)
Rutgers University (New Jersey) (2 occasions)
Bell Laboratories (New Jersey)
University of Arizona
Uppsala University (Sweden) (3 occasions)
Stockholm University (Sweden) (2 occasions)
Catholic University (Leuven, Belgium)
Stochastic Processes Conference (Toronto)
dynamical systems conference (Porto)
Royal Technical University (Stockholm) (3 occasions)
Lund University (2 occasions) (Sweden)
Stochastic Processes Conference (Amsterdam)

CWI (Amsterdam)
Hebrew University (Jerusalem)
University of Maryland
Oregon State University (6 occasions)
Cornell University (4 occasions)
Workshop on Symbolic Dynamics (Warwick, England)
Cambridge University (Cambridge, England) (3 occasions)
Technical University of Denmark (Lyngby)
University of Colorado at Colorado Springs
Issac Newton Institute (Cambridge, England) (2 occasions)
University of Zurich
Oberwolfach (Germany) (4 occasions)
3rd World Congress of the Bernoulli Society (Chapel Hill)
University of Utrecht (2 occasions)
Georgia Institute of Technology
Mittag Leffler Institute
Uppsala University
Schrodinger Institute (Vienne) (2 occasions)
Mathematical Institute of the Hungarian Academy of Sciences (Budapest)
University of Helsinki
Åbo University
University of Jyväskylä
Moscow State University
discrete probability and problems from Physics workshop (Jerusalem)
Particle Systems conference (Haifa)
University of Wisconsin at Madison (4 talks)
University of Pittsburgh
University of Toronto (3 occasions)
University of Minnesota
University of Western Australia
Courant Institute
University of Wrocław (2 occasions)
Finnish summer school in probability
Network and trees conference (Denmark)
St. Flour summer school in Probability
ergodic theory workshop Szklarska Poreba, Poland
University of Umeå
Random walk workshop, Budapest
Paris VI (2 lectures)
Orsay
Eurandom probability seminar
Nicholas Copernicus University, Torun

Lund University, Lunds Matematiska Sällskap
Indiana University, Bloomington (2 talks)
Ohio State University, Columbus
University of Washington (2 times)
Microsoft (2 times)
Ergodic theory meeting, Memphis
Random walk meeting, Schrodinger Institute (Vienne)
University of Manchester
University of Warwick
University of Oxford
University of Oslo
Stockholm University
Linköping University
University of Oxford
Washington University
University of British Columbia
University of Wrocław
ETH
Cambridge University
University of Bristol
University of Bath

Publications

- [1] A Characterization of Competition Graphs of Arbitrary Digraphs, (with Fred S. Roberts), *Discrete Applied Mathematics Journal*, **6**, (1983), 323–326.
- [2] The Frame Dimension and the Complete Overlap Dimension of a Graph, *Journal of Graph Theory*, **9**, (1985), 285–299.
- [3] Space–Time Bernoullicity of the Lower and Upper Stationary Processes for Attractive Spin Systems, *Annals of Probability*, **19**, No. 2, (1991), 609–635.
- [4] \bar{d} –Convergence to Equilibrium and Space–Time Bernoullicity for Spin Systems in the $M < \epsilon$ Case, *Ergodic Theory and Dynamical Systems*, **11**, Part 3, (1991), 547–575.
- [5] Some Rigorous Results for the Greenberg–Hastings Model, (with Richard Durrett), *Journal of Theoretical Probability*, **4**, No. 4, (1991), 669–690.
- [6] Fixation Results for Threshold Voter Systems, (with Richard Durrett), *Annals of Probability*, **21**, No. 1, (1993), 232–247.
- [7] An Application of the Very Weak Bernoulli Condition for Amenable Groups, (with Scot Adams), *Pacific Mathematical Journal*, **159**, No. 1, (1993), 1–17.
- [8] Nonuniqueness of Measures of Maximal Entropy for Subshifts of Finite Type, (with Robert Burton), *Ergodic Theory and Dynamical Systems*, **14**, Part 2, (1994), 213–235.
- [9] Percolation and the Hard-Core Lattice Gas Model, (with Jacob van den Berg), *Stochastic Processes and Their Applications*, **49**, No. 2, (1994), 179–197.
- [10] The Threshold Voter Automaton at a Critical Point, *Annals of Probability*, **22**, No. 3, (1994), 1121–1139.
- [11] New Results on Measures of Maximal Entropy, (with Robert Burton), *Israel Journal of Mathematics*, **89**, (1995), 275–300.
- [12] Two Applications of Percolation to Cellular Automata, *Journal of Statistical Physics*, **78**, (1995), 1325–1335.
- [13] Quite Weak Bernoulli with Exponential Rate and Percolation for Random Fields, (with Robert Burton), *Stochastic Processes and Their Applications*, **58**, No. 1, (1995), 35–55.
- [14] On Cover’s Consistent Estimator, (with Jack Koplowitz and Olle Nerman), *Scandinavian Journal of Statistics*, **22**, No. 3, (1995), 395–397.

- [15] The Variational Principle for Gibbs States Fails on Trees, (with Robert Burton and Charles Pfister), *Markov Processes and Related Fields*, **1**, No. 3, (1995), 387–406.
- [16] Some 2-d Symbolic Dynamical Systems: Entropy and Mixing, (with Robert Burton), *Ergodic Theory and Dynamical Systems (with applications to \mathbf{Z}^n -actions, number theory, statistical mechanics, and algebra)*, eds. Pollicott, M. and Schmidt, K., Cambridge University Press, (1996), 297–305.
- [17] On the continuity of the critical value for long range percolation in the exponential case, (with Ronald Meester), *Communications in Mathematical Physics*, **180**, (1996), 483–504.
- [18] Consistent Estimation of Joint Distributions for Sufficiently Mixing Random Fields, *Annals of Statistics*, **25**, (1997), 293–304.
- [19] On K -Automorphisms, Bernoulli Shifts and Markov Random Fields, (with Frank den Hollander), *Ergodic Theory and Dynamical Systems*, **17**, Part 2, (1997), 405–415.
- [20] Dynamical Percolation, (with Olle Häggström and Yuval Peres), *Annales Institut Henri Poincaré, Probabilités et Statistiques*, **33**, Part 4, (1997), 497–528.
- [21] Mixing properties of the generalized T, T^{-1} -process, (with Frank den Hollander), *Journal d'Analyse Mathématique*, **72**, (1997), 165–202.
- [22] Coupling Surfaces and Weak Bernoulli in One and Higher Dimensions, (with Robert Burton), *Advances in Mathematics*, **132**, Part 1, (1997), 1–23.
- [23] The Number of Infinite Clusters in Dynamical Percolation, (with Yuval Peres), *Probability Theory and Related Fields*, **111**, Part 1, (1998), 141–165.
- [24] Consistent estimation of percolation quantities, (with Ronald Meester), *Statistica Neerlandica*, **52**, (1998), 226–238.
- [25] Amenability and phase transition in the Ising model, (with Johan Jonasson), *Journal of Theoretical Probability*, **12**, (1999), 549–559.
- [26] On the existence and non-existence of finitary codings for a class of random fields, (with Jacob van den Berg), *Annals of Probability*, **27**, (1999), 1501–1522.
- [27] Robust Phase Transitions for Heisenberg and Other Models on General Trees, (with Robin Pemantle), *Annals of Probability*, **27**, (1999), 876–912.

- [28] On the equivalence of certain ergodic properties for Gibbs states, (with Frank den Hollander), *Ergodic Theory and Dynamical Systems*, **20**, (2000), 231–239.
- [29] Propp–Wilson algorithms and finitary codings for high noise Markov random fields, (with Olle Häggström), *Combinatorics, Probability & Computing*, **9**, (2000), 425–439.
- [30] The Ising Model on Diluted Graphs and Strong Amenability, (with Olle Häggström and Roberto Schonmann), *Annals of Probability*, **28**, (2000), 1111–1137.
- [31] Higher-dimensional subshifts of finite type, factor maps and measures of maximal entropy, (with Ronald Meester) *Pacific Mathematical Journal*, **200**, (2001), 497–510.
- [32] The T, T^{-1} -process, finitary codings and weak Bernoulli. *Israel Journal of Mathematics*, **125**, (2001), 29–43.
- [33] Which properties of a random sequence are dynamically sensitive?, (with Itai Benjamini, Olle Häggström and Yuval Peres), *Annals of Probability*, **31**, (2003), 1–34.
- [34] Finitary coding for the 1-D T, T^{-1} -process with drift, (with Mike Keane), *Annals of Probability*, **31**, (2003), 1979–1985.
- [35] Stationary Determinantal Processes: Phase Multiplicity, Bernoullicity, Entropy, and Domination (with Russ Lyons), *Duke Mathematical Journal*, **120**, (2003), 515–575.
- [36] Weak Bernoullicity of Random Walk in Random Scenery (with Frank den Hollander, Michael Keane, and Jacek Serafin), *Japanese Journal of Mathematics*, **29**, (2003), 389–406.
- [37] The voter model with anti-voter bonds (with Nina Gantert and Matthias Löwe), *Annales Institut Henri Poincaré, Probabilités et Statistiques*, **41**, (2005), 767–780.
- [38] Dynamical Stability of Percolation for Some Interacting Particle Systems and ϵ -Stability, (with Erik Broman), *Annals of Probability*, **34**, (2006), 539–576.
- [39] Bad Configurations for Random Walk in Random Scenery and Related Subshifts, (with Frank den Hollander and Peter van der Wal), *Stochastic Processes and Their Applications*, **115**, (2005), 1209–1232.

- [40] Stochastic Domination: The Contact Process, Ising models and FKG Measures, (with Thomas M. Liggett), *Annales Institut Henri Poincare, Probabilites et Statistiques*, **42**, (2006), 223–243.
- [41] Non-interactive correlation distillation, inhomogeneous Markov chains, and the reverse Bonami-Beckner inequality, (with Elchanan Mossel, Ryan O’Donnell, Oded Regev, and Benny Sudakov), *Israel Journal of Mathematics*, **154**, (2006), 299–336.
- [42] Random walk in random scenery: A survey of some recent results, (with Frank den Hollander), *Dynamics and Stochastics: Festschrift in Honor of Michael Keane*, IMS Lecture Notes-Monograph Series, Vol. 48 (2006) 53–65.
- [43] Refinements of stochastic domination (with Erik Broman and Olle Häggström), *Probability Theory and Related Fields*, **136**, (2006), 587–603.
- [44] Quantitative noise sensitivity and exceptional times for percolation, (with Oded Schramm), *Annals of Mathematics*, **171**, (2010), 619–672.
- [45] Statistical mechanical systems on complete graphs, infinite exchangeability, finite extensions and a discrete finite moment problem (with Tom Liggett and Bálint Tóth), *Annals of Probability*, **35**, (2007), 867–914.
- [46] Some results for poisoning in a catalytic model (with Aidan Sudbury), *Elect. Comm. in Probab.* **11**, (2006), 168–177.
- [47] Dynamical models for circle covering: Brownian motion and Poisson updating (with Johan Jonasson), *Annals of Probability*, **36**, (2008), 739–764.
- [48] Dynamical sensitivity of the infinite cluster in critical percolation, (with Yuval Peres and Oded Schramm), *Annales Institut Henri Poincare, Probabilites et Statistiques*, **45**, Part 2, (2009), 491–514.
- [49] The critical contact process in a randomly evolving environment dies out, (with Marcus Warfheimer), *Latin American Journal of Probability and Mathematical Statistics*, **4**, (2008), 337–357.
- [50] On the Cluster Size Distribution for Percolation on Some General Graphs (with Antar Bandyopadhyay and Adam Timar), *Revista Matematica Iberoamericana*, **26**, (2010), 529–550.
- [51] A survey on dynamical percolation, *Fractal geometry and stochastics, IV*, *Birkhauser*, (2009), 145–174.

- [52] Exclusion Sensitivity of Boolean Functions, (with Erik Broman and Christophe Garban), *Probability Theory and Related Fields*, **155**, (2013), 621–663.
- [53] A mini course on percolation theory, *Jyväskylä Lectures in Mathematics*, **3**, (2011).
- [54] Noise sensitivity and percolation. (with Christophe Garban), Probability and statistical physics in two and more dimensions, 49–154, *Clay Math. Proc.*, **15**, Amer. Math. Soc., Providence, RI, 2012.
- [55] A crossover for the bad configurations of random walk in random scenery, (with Sébastien Blachère and Frank den Hollander), *Annals of Probability*, **39**, (2011), 2018–2041.
- [56] Strong noise sensitivity and random graphs, (with Eyal Lubetzky), *Annals of Probability*, **43**, (2015), 3239–3278.
- [57] Random walks on dynamical percolation: mixing times, mean squared displacement and hitting times, (with Yuval Peres and Alexandre Stauffer), *Probability Theory and Related Fields*, **162**, (2015), 487–530.
- [58] Wald for non-stopping times: The rewards of impatient prophets, (with Alexander E. Holroyd and Yuval Peres), *Elect. Comm. in Probab.* **19**, (2014), no. 78, 9pp.
- [59] Scaling limits for the threshold window: When does a monotone Boolean function flip its outcome? (with Daniel Ahlberg) (and with an appendix by Gabor Pete), *Annales Institut Henri Poincaré, Probabilités et Statistiques*, **53**, (2017), 2135–2161.
- [60] Cutoff for the noisy voter model (with Ted Cox and Yuval Peres), *Annals of Applied Probability* **26**, (2016), 917–932.
- [61] Volatility of Boolean functions (with Johan Jonasson), *Stochastic Processes and Their Applications*, **126**, (2016), 2956–2975.
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