

LIST OF PUBLICATIONS OF FRANK DEN HOLLANDER

(update: 01 November 2017)

- (1) *Random walks with ‘spontaneous emission’ on lattices with periodically distributed imperfect traps*, Physica 112 A (1982) 523–543
(with P.W. Kasteleyn).
- (2) *Random walks on lattices with points of two colours I*, Physica 117 A (1983) 179–188
(with P.W. Kasteleyn).
- (3) *Random walks on inhomogeneous lattices*, J. Stat. Phys. 30 (1983) 363–372
(with P.W. Kasteleyn).
* In proceedings of ‘Symposium on Random Walks’, July 1982, Gaithersburg, Maryland, USA.
- (4) *Trapping, loss and annihilation of excitations in a photosynthetic system I*, Biochim. Biophys. Acta 725 (1983) 492–507
(with J.G.C. Bakker and R. van Grondelle).
- (5) *Trapping, loss and annihilation of excitations in a photosynthetic system II*, Biochim. Biophys. Acta 725 (1983) 508–518
(with J.G.C. Bakker and R. van Grondelle).
- (6) *Random walks on lattices with randomly distributed traps*, J. Stat. Phys. 37 (1984) 331–367.
- (7) *Random walks on lattices with points of two colours II*, J. Stat. Phys. 39 (1985) 15–52
(with P.W. Kasteleyn).
- (8) *Comment on a paper by G.H. Weiss, S. Havlin and A. Bunde*, J. Stat. Phys. 40 (1985) 201–204.
- (9) *A random walk calculation of the quantum yield of photosynthetic processes as a function of molecular excitation parameters*, Physiol. Veg. 23 (1985) 523–534
(with L.N.M. Duysens).
* Dedicated to D.I. Arnon on the occasion of his 75-th birthday.
- (10) *Random walks on random lattices*, thesis University of Leiden (1985).
- (11) *Inequalities of FKG type*, Physica 138A (1986) 167–182
(with M.S. Keane).
* Invited paper in a Festschrift in honour of P.W. Kasteleyn on the occasion of his retirement from the University of Leiden.
- (12) *Ergodic properties of color records*, Physica 138A (1986) 183–193
(with M.S. Keane).
* Same as in (11).
- (13) *Mixing properties for random walk in random scenery*, Ann. Prob. 16 (1988) 1788–1802.

- (14) *On the range of a constrained random walk*, J. Appl. Prob. 25 (1988) 451–463
(with G.H. Weiss).
- (15) *A note on configurational properties of constrained random walks*, J. Phys. A21 (1988) 2405–2415
(with G.H. Weiss).
- (16) *Mark Kac seminar on probability and physics, Syllabus 1985-1987* (eds. F. den Hollander and H. Maassen), CWI Syllabus 17 (1988).
- (17) *Tail triviality for sums of stationary random variables*, Ann. Probab. 17 (1989) 1635–1645
(with H.C.P. Berbee).
- (18) *A stochastic model for the membrane potential of a stimulated neuron*, J. Math. Biol. 27 (1989) 681–692
(with A. Frigessi).
- (19) *Population growth in random media. I. Variational formula and phase diagram*, J. Stat. Phys. 65 (1991) 1123–1146
(with A. Greven).
* In proceedings of ‘Conference on Models of Non-Classical Reaction Rates’, March 1991, Bethesda, Maryland, USA.
- (20) *Population growth in random media. II. Wave front propagation*, J. Stat. Phys. 65 (1991) 1147–1154
(with A. Greven).
* Same as in (19).
- (21) *Strong law and central limit theorem for a process between maxima and sums*, Probab. Theory Relat. Fields 90 (1991) 37–55
(with G. Hooghiemstra, M. Keane and J. Resing).
- (22) *Branching random walk in random environment: phase transitions for local and global growth rates*, Probab. Theory Relat. Fields 91 (1992) 195–249
(with A. Greven).
- (23) *A long-time tail for random walk in random scenery*, J. Stat. Phys. 66 (1992) 1527–1555
(with J. Naudts and P. Scheunders).
- (24) *Invariance principle for the stochastic Lorentz lattice gas*, J. Stat. Phys. 66 (1992) 1583–1598
(with J. Naudts and F. Redig).
- (25) *Random walks in a random field of decaying traps*, J. Stat. Phys. 67 (1992) 13–31
(with K.E. Shuler).
- (26) *Long time tails in a random diffusion model*, J. Stat. Phys. 69 (1992) 731–762
(with J. Naudts and F. Redig).
- (27) *Mark Kac seminar on probability and physics, Syllabus 1987-1992* (eds. F. den Hollander and H. Maassen), CWI Syllabus 32 (1992).

- (28) *A variational approach to branching random walk in random environment*, Ann. Probab. 21 (1993) 290–317
(with J.-B. Baillon, Ph. Clément and A. Greven).
- (29) *Large deviations and random media*, Bull. Int. Stat. Inst. (1993), Vol. 55, Book 3, pp. 67–84.
* Invited paper in the session ‘Selected Topics in Probability’ of the 49th Session of the International Statistical Institute, August 1993, Florence, Italy.
- (30) *A variational characterization of the speed of a one-dimensional self-repellent random walk*, Ann. Appl. Probab. 3 (1993) 1067–1099
(with A. Greven).
- (31) *Shift-coupling and a zero-one law for random walk in random environment*, Acta Appl. Math. 34 (1994) 37–50
(with H. Thorisson).
* Invited paper in a special issue entitled ‘Applications of Coupling and Regeneration’ (eds. V. Kalashnikov and H. Thorisson).
- (32) *Survival asymptotics for Brownian motion in a Poisson field of decaying traps*, Ann. Probab. 22 (1994) 160–176
(with E. Bolthausen).
- (33) *A dynamical phase transition in a caricature of a spin glass*, J. Stat. Phys. 75 (1994) 585–625
(with A. Frigessi).
- (34) *Trapping in transport processes*, In: ‘Contemporary Problems in Statistical Physics’ (ed. G.H. Weiss), Society for Industrial and Applied Mathematics (SIAM), Philadelphia, 1994, pp. 147–203
(with G.H. Weiss).
- (35) *On three conjectures by K.E. Shuler*, J. Stat. Phys. 75 (1994) 891–918
* Dedicated to Professor K.E. Shuler on the occasion of his 70th birthday.
- (36) *Long time tails in physics and mathematics*, In: ‘Probability and Phase Transition’ (ed. G. Grimmett), NATO ASI Series C: Mathematical and Physical Sciences, Vol. 420, Kluwer, Dordrecht, 1994, pp. 123–137.
* In proceedings of the NATO Symposium on ‘Probability Theory of Spatial Disorder and Phase Transition’, July 1993, Cambridge, Great Britain.
- (37) *Dynamic structure factor in a random diffusion model*, J. Stat. Phys. 76 (1994) 1267–1285
(with J. Naudts and F. Redig).
- (38) *On a variational problem for an infinite particle system in a random medium, Part I: The global growth rate*, J. reine angew. Math. 454 (1994) 181–217
(with J.-B. Baillon, Ph. Clément, A. Greven).
- (39) *On a variational problem for an infinite particle system in a random medium, Part II: The local growth rate*, Probab. Theory Relat. Fields 100 (1994) 301–328
(with A. Greven).

- (40) *Large deviations for a random walk in random environment*, Ann. Probab. 22 (1994) 1381–1428
(with A. Greven).
- (41) *Random Media*, Inaugural Address, University of Nijmegen, January 27, 1995.
- (42) *Scaling for a random polymer*, Commun. Math. Phys. 169 (1995) 397–440
(with R. van der Hofstad).
- (43) *On the attracting orbit of a non-linear transformation arising from renormalization of hierarchically interacting diffusions, Part I: The compact case*, Can. J. Math. 47 (1995) 3–27
(with J.-B. Baillon, Ph. Clément, A. Greven).
- (44) *Two problems about random walk in a random field of traps*, Markov Processes Relat. Fields 1 (1995) 185–202
(with M.V. Menshikov and S.E. Volkov).
- (45) *Probabilistic aspects of physics*, Nieuw Archief voor Wiskunde 14 (1996) 81–92.
* Invited paper presented at the 31st Dutch Mathematical Congress, April 1995, Groningen.
- (46) *Random polymers*, Statistica Neerlandica 50 (1996) 136–145.
* Invited paper in a special issue of Statistica Neerlandica celebrating the 50-th anniversary of the Dutch Society for Statistics and Operations Research.
- (47) *McKean-Vlasov limit for interacting random processes in random media*, J. Stat. Phys. 84 (1996) 735–772
(with P. Dai Pra).
- (48) *Pieter Willem Kasteleyn: October 12, 1924 – January 16, 1996*, J. Stat. Phys. 85 (1996) 801–805.
- (49) *On K -automorphisms, Bernoulli shifts and Markov random fields*, Ergod. Theory and Dynam. Sys. 17 (1997) 405–415
(with J.E. Steif).
- (50) *Central limit theorem for a weakly interacting random polymer*, Markov Processes and Relat. Fields 3 (1997) 1–62
(with R. van der Hofstad and W. König).
- (51) *Central limit theorem for the Edwards model*, Ann. Probab. 25 (1997) 573–597
(with R. van der Hofstad and W. König).
- (52) *On the attracting orbit of a non-linear transformation arising from renormalization of hierarchically interacting diffusions, Part II: The non-compact case*, J. Funct. Anal. 146 (1997) 236–298
(with J.-B. Baillon, Ph. Clément, A. Greven).
- (53) *Localization transition for a polymer near an interface*, Ann. Probab. 25 (1997) 1334–1366
(with E. Bolthausen).

- (54) *Mixing properties of the generalized T, T^{-1} -process*, J. d' Analyse Math. 72 (1997) 165–202
(with J.E. Steif).
- (55) *A new inductive approach to the lace expansion for self-avoiding random walks*, Probab. Theory Relat. Fields 111 (1998) 253–286
(with R. van der Hofstad and G. Slade).
- (56) *Renormalization of hierarchically interacting isotropic diffusions*, J. Stat. Phys. 93 (1998) 243–291
(with J. Swart).
- (57) *Der Zufall in der Chemie: Polymere*, Nova Acta Leopoldina NF79, Nr. 308 (1999) 69–77.
* Invited paper presented at the meeting ‘Der Zufall’, Deutsche Akademie der Naturforscher Leopoldina, April 1998, Halle, Gemany.
- (58) *Correlation structure of intermittency in the parabolic Anderson model*, Probab. Theory Relat. Fields 114 (1999) 1–54
(with J. Gärtner).
- (59) *Asymptotics for the heat content of a planar region with a fractal polygonal boundary*, Proc. London Math. Soc. 78 (1999) 627–661
(with M. van den Berg).
- (60) *A note on transience vs. recurrence for a branching random walk in random environment*, J. Stat. Phys. 95 (1999) 587–614
(with M.V. Menshikov and S.Yu. Popov).
- (61) *A heteropolymer near a linear interface*, Ann. Appl. Probab. 9 (1999) 668–687
(with M. Biskup).
- (62) *Large Deviations (monograph)*, Fields Institute Monographs 14, American Mathematical Society, Providence RI, 2000, x + 143 pp., ISBN 0–8218–1989–5.
- (63) *On the equivalence of certain ergodic properties for Gibbs states*, Ergod. Theory and Dynam. Sys. 20 (2000) 231–239
(with J.E. Steif).
- (64) *Metastability and nucleation for conservative dynamics*, J. Math. Phys. 41 (2000) 1424–1498
(with E. Olivieri and E. Scoppola).
* Invited paper in a special issue entitled ‘Probabilistic Techniques in Equilibrium and Nonequilibrium Statistical Physics’.
- (65) *Nucleation in fluids: some rigorous results*, Physica A 279 (2000) 110–122
(with E. Olivieri and E. Scoppola).
* Invited paper in a special issue dedicated to Professor J.L. Lebowitz on the occasion of his 70th birthday.

- (66) *Infinite-Dimensional Stochastic Analysis*, Royal Dutch Academy of Sciences, Proceedings of the Colloquium, Amsterdam, 11–12/02/1999 (eds. Ph. Clément, F. den Hollander, J. van Neerven and B. de Pagter), Amsterdam, 2000.
* Proceedings of a special colloquium hosted by the Royal Dutch Academy of Sciences.
- (67) *Renormalization of interacting diffusions*, in: *Complex Stochastic Systems* (eds. O.E. Barndorff-Nielsen, D.R. Cox and C. Klüppelberg), Monographs on Statistics and Applied Probability 87, Chapman & Hall ICRC, Boca Raton, FL, 2001, pp. 219–233.
* Invited paper presented at the 4th meeting of the ‘Séminaires Européens des Statistiques’ on ‘Complex Stochastic Systems’, March 1999, EURANDOM, Eindhoven, The Netherlands.
- (68) *Metastability and nucleation for conservative dynamics*, Markov Processes Relat. Fields 7 (2001) 51–53
* Proceedings of the conference on ‘Inhomogeneous Random Systems’, January 2000, Cergy-Pontoise, France.
- (69) *Moderate deviations for the volume of the Wiener sausage*, Ann. Math. 153 (2001) 355–406
(with M. van den Berg and E. Bolthausen).
- (70) *Possible loss and recovery of Gibbsianness during the stochastic evolution of Gibbs measures*, Commun. Math. Phys. 226 (2002) 101–130
(with A. van Enter, R. Fernández and F. Redig).
- (71) *Construction of the incipient infinite cluster for spread-out oriented percolation above 4+1 dimensions*, Commun. Math. Phys. 231 (2002) 435–461
(with R. van der Hofstad and G. Slade).
- (72) *Localization of a random walk with random potential*, in: Collection Papers of Zhou Xianyin, Vols. I+II, Beijing Normal University Modern Mathematics Series, Beijing Normal University Press, Beijing, 2002, pp. 811–840 + 841–842
(with S. Albeverio and X. Zhou).
* Memorial volume for Dr. X. Zhou.
- (73) *Droplet growth for three-dimensional Kawasaki dynamics*, Probab. Theory Relat. Fields 125 (2003) 153–194
(with F.R. Nardi, E. Olivieri and E. Scoppola).
- (74) *Laudatio for Michael Aizenman*, Nieuw Archief voor Wiskunde 5 (2003) 107–108
(with A. van Enter)
* Laudatio for the winner of the 2002 Brouwer Medal, presented at the 38th Dutch Mathematical Congress, 4–5/04/2002, Eindhoven, The Netherlands.
- (75) *Relative entropy for random motion in a random medium*, in: *Entropy*, Princeton Series in Applied Mathematics, Princeton University Press, Princeton, 2003, pp. 217–234.
* Invited paper presented at the ‘International Symposium on Entropy’, June 2000, Max Planck Institute for Physics of Disordered Systems, Dresden, Germany.
- (76) *Large deviations for the one-dimensional Edwards model*, Ann. Probab. 31 (2003) 2003–2039
(with R. van der Hofstad and W. König).

- (77) *Survival asymptotics for branching Brownian motion in a Poissonian trap field*, Markov Processes Relat. Fields 9 (2003) 363–389
(with J. Engländer).
- (78) *Weak interaction limits for one-dimensional random polymers*, Probab. Theory Relat. Fields 125 (2003) 483–521
(with R. van der Hofstad and W. König).
- (79) *Weak Bernoullicity for random walk in random scenery*, Japan J. Math. 29 (2003) 389–406
(with M.S. Keane, J. Serafin and J.E. Steif).
- (80) *Diffusion of a heteropolymer in a multi-interface medium*, J. Stat. Phys. 114 (2004) 849–889
(with M. Wüthrich).
- (81) *On the volume of the intersection of two Wiener sausages*, Ann. Math. 159 (2004) 741–782
(with M. van den Berg and E. Bolthausen).
- (82) *Gibbs under stochastic dynamics?*, Markov Processes Relat. Fields 10 (2004) 507–516.
* Proceedings of the conference ‘Gibbs versus non-Gibbs in Statistical Mechanics and Related Fields’, December 2003, EURANDOM, Eindhoven, The Netherlands.
- (83) *Metastability under stochastic dynamics*, Stoch. Proc. Appl. 114 (2004) 1–26.
* Invited paper presented as the Lévy Lecture at the 29th Conference on Stochastic Processes and Applications, August 2003, Rio de Janeiro, Brazil.
- (84) *Spin glasses: A mystery about to be solved*, Nieuw Archief voor Wiskunde 5/5 (2004) 274–278
(with F.L. Toninelli).
* Also appeared as a feature article in the Newsletter of the European Mathematical Society, Issue 56 (June 2005), pp. 13–17, and as a translated article in Mathematical Advance in Translation, Chinese Academy of Sciences, 2009.
- (85) *Brownian survival among Poissonian traps with random shapes at critical intensity*, Probab. Theory Relat. Fields 132 (2005) 163–202
(with M. van den Berg and E. Bolthausen).
- (86) *Random Dynamics in Spatially Extended Systems*, in: Proceedings of the 4th European Congress of Mathematics, Stockholm, Sweden (ed. A. Laptev), European Mathematical Society Publishing House, Zürich, 2005, pp. 561–572.
* Invited European Network Lecture at the 4th European Congress of Mathematics, June 2004, Stockholm, Sweden.
- (87) *Bad configurations for random walk in random scenery and related subshifts*, Stoch. Proc. Appl. 115 (2005) 1209–1232
(with J.E. Steif and P. van der Wal).
- (88) *Sharp asymptotics for Kawasaki dynamics on a finite box with open boundary*, Probab. Theory Relat. Fields 135 (2006) 265–310
(with A. Bovier and F.R. Nardi).

- (89) *Diffusion in an annihilating environment*, Nonlinear Analysis, Real World Applications 7 (2006) 25–64
(with J. Gärtner and S.A. Molchanov).
- (90) *Random walk in random scenery: A survey of some recent results*, in: IMS Lecture Notes – Monograph Series, Vol. 48, *Dynamics & Stochastics* (eds. D. Denteneer, F. den Hollander and E. Verbitskiy), IMS, Beachwood Ohio, US, 2006, pp. 53–65
(with J.E. Steif).
* Invited paper in a Festschrift in honour of M.S. Keane on the occasion of his 65-th birthday.
- (91) *Renormalization of interacting diffusions: a program and four examples*, in: Operator Theory, Advances and Applications, Vol. 168, *Partial Differential Equations and Functional Analysis: The Philippe Clément Festschrift*, Birkhäuser, Basel, 2006, pp. 123–136.
* Invited paper in a Festschrift in honour of Ph. Clément on the occasion of his retirement from Delft Technical University.
- (92) *Localization transition for a copolymer in an emulsion*, Theor. Prob. Appl. 51 (2006) 193–240
(with S.G. Whittington).
* Invited paper in a special issue of Theory of Probability and its Applications in honour of Ya.G. Sinai on the occasion of his 70-th birthday.
** Also published in the Russian journal *Teoriya Veroyatnostey I ee primeneniya* (Volume 51, pp. 193–240), and included into the English version of this journal *Theory of Probability and Its Applications* (TPA, Volume 51, pp. 101–141) issued by the Society of Industrial and Applied Mathematics (SIAM, USA, Philadelphia).
- (93) *Mathematical Statistical Physics*, Proceedings of the ESF/RDSES Summer School at the Ecole Physique in Les Houches, France, July 2005 (eds. A. Bovier, J. Dalibard, F. Dunlop, A. van Enter and F. den Hollander), Elsevier, Amsterdam, 2006, XXXI + 816 pp.
- (94) *Toeval in Focus*, Inaugural Address, University of Leiden, October 27, 2006.
- (95) *Intermittency in a catalytic random medium*, Ann. Probab. 34 (2006) 2219–2287
(with J. Gärtner).
- (96) *The survival probability of critical spread-out oriented percolation above 4+1 dimensions. I. Induction*, Probab. Theory Relat. Fields 138 (2007) 363–389
(with R. van der Hofstad and G. Slade).
- (97) *Phase transitions for the long-time behaviour of interacting diffusions*, Ann. Probab. 35 (2007) 1250–1306
(with A. Greven).
- (98) *Intermittency on catalysts: symmetric exclusion*, Electronic J. Prob. 12 (2007), Paper no. 18, pp. 516–573
(with J. Gärtner and G. Maillard).
- (99) *The survival probability of critical spread-out oriented percolation above 4+1 dimensions. II. Expansion*, Ann. I. Henri Poincaré, Probabilités et Statistiques 43 (2007) 509–570
(with R. van der Hofstad and G. Slade).

- (100) *Invasion percolation on regular trees*, Ann. Probab. 36 (2008) 420–466
(with O. Angel, J. Goodman and G. Slade).
- (101) *EURANDOM: A decade of European stochastics*, in: *EURANDOM 1998–2008: A random tour through a decade of research* (eds. I. Adan, A. Di Bucchianico and R. van der Hofstad), Statistica Neerlandica 62 (2008) 256–265
(with W.J.M. Senden and W.R. van Zwet).
- (102) *Abelprijs 2007: S.R. Srinivasa Varadhan*, Nieuw Archief voor Wiskunde 9 (2008) 192–197.
- (103) *The renormalization transformation for two-type branching models*, Ann. I. Henri Poincaré, Probabilités et Statistiques 44 (2008) 1038–1077
(with D.A. Dawson, A. Greven, R. Sun and J. Swart).
- (104) *How T-cells use large deviations to recognize foreign antigens*, J. Math. Biol. 57 (2008) 841–861
(with E. Baake and N. Zint).
- (105) *Intermittency on catalysts*, in: *Trends in Stochastic Analysis* (eds. J. Blath, P. Mörters and M. Scheutzow), London Mathematical Society Lecture Note Series 353, Cambridge University Press, Cambridge, 2009, pp. 235–248
(with J. Gärtner and G. Maillard).
* Invited paper in a Festschrift in honour of H. von Weizsäcker on the occasion of his 60-th birthday.
- (106) *Three lectures on metastability under stochastic dynamics*, in: *Methods of Contemporary Mathematical Statistical Physics* (ed. R. Kotecký), Lecture Notes in Mathematics 1970, Springer, Berlin, 2009, pp. 223–246.
* Invited lecture series at the 4th Summer School on Mathematical Statistical Mechanics, Prague, Czech Republic, 10–23 September 2006.
- (107) *Ideal gas approximation for a two-dimensional rarified gas under Kawasaki dynamics*, Stoch. Proc. Appl. 119 (2009) 737–774
(with A. Gaudillière, F.R. Nardi, E. Olivieri and E. Scoppola).
- (108) *Random Polymers (monograph)*, Lecture Notes in Mathematics 1974, Springer, Berlin, 2009, xiii + 258 pp., ISBN 978-3-642-00332-5.
* Based on a mini-course presented at the 37th International Probability Summer School in Saint-Flour, France, 8–21 July 2007.
- (109) *On the localized phase of a copolymer in an emulsion: supercritical percolation regime*, Commun. Math. Phys. 285 (2009) 825–871
(with N. Pétrélis).
- (110) *On the localized phase of a copolymer in an emulsion: subcritical percolation regime*, J. Stat. Phys. 134 (2009) 209–241
(with N. Pétrélis).
- (111) *Intermittency on catalysts: three-dimensional simple symmetric exclusion*, Electronic J. Probab. 14 (2009) 2091–2129
(with J. Gärtner and G. Maillard).

- (112) *A mathematical model for a copolymer in an emulsion*, J. Math. Chem. 48 (2010) 83–94
(with N. P  tr  lis).
* Invited paper in honour of R. Kapral and S.G. Whittington on the occasion of their 65-th birthdays.
- (113) *Quenched large deviation principle for words in a letter sequence*, Probab. Theory Relat. Fields 148 (2010) 403–456
(with M. Birkner and A. Greven).
- (114) *Homogeneous nucleation for Glauber and Kawasaki dynamics in large volumes at low temperatures*, Ann. Probab. 38 (2010) 661–713
(with A. Bovier and C. Spitoni).
- (115) *Intermittency on catalysts: voter model*, Ann. Probab. 38 (2010) 2066–2102
(with J. G  rtner and G. Maillard).
- (116) *Large deviation principle for one-dimensional random walk in dynamic random environment: attractive spin-flips and simple symmetric exclusion*, Markov Proc. Relat. Fields 16 (2010) 139–168
(with L. Avena and F. Redig).
* Invited paper for the 15-th anniversary celebration issue of Markov Processes and Related Fields.
- (117) *A key large deviation principle for interacting stochastic systems*, Proceedings of the International Congress of Mathematicians, Hyderabad, India, August 19–27, 2010, Vol. IV, pp. 2258–2274, Hindustan Book Agency, New Delhi, 2010.
* Invited paper in the ICM section on Probability and Statistics.
- (118) *Oprichting Platform Wiskunde Nederland*, Nieuw Archief voor Wiskunde 5/11 (2010) 168–172.
- (119) *A large-deviation view on dynamical Gibbs-non-Gibbs transitions*, Moscow Math. J. 10 (2010) 687–711
(with A.C.D. van Enter, R. Fern  ndez and F. Redig).
* Invited paper in a special volume in memory of R.L. Dobrushin.
- (120) *Collision local time of transient random walks and intermediate phases in interacting stochastic systems*, Electronic J. Prob. 16 (2011) 552–586
(with M. Birkner and A. Greven).
- (121) *Law of large numbers for a class of random walks in dynamic random environments*, Electronic J. Prob. 16 (2011) 587–617
(with L. Avena and F. Redig).
- (122) *A crossover for the bad configurations of random walk in random scenery*, Ann. Probab. 39 (2011) 2018–2041
(with S. Blach  re and J.E. Steif).
* Invited paper in a special volume in memory of O. Schramm.
- (123) *Kawasaki dynamics with two types of particles: stable/metastable configurations and communication heights*, J. Stat. Phys. 145 (2011) 1423–1457
(with F.R. Nardi and A. Troiani).

- (124) *The mathematical work of Jürgen Gärtner*, in: Probability in Complex Physical Systems. In honour of Erwin Bolthausen and Jürgen Gärtner (eds. J.-D. Deuschel, B. Gentz, W. König, M.-K. van Renesse, M. Scheutzow, U. Schmock), Springer Proceedings in Mathematics 11, Springer, 2012, Berlin, pp. 1–10.
* Invited paper in a Festschrift on the occasion of the 60-th birthday of Jürgen Gärtner and the 65-th birthday of Erwin Bolthausen.
- (125) *Quenched Lyapunov exponent for the parabolic Anderson model in a dynamic random environment*, in the same volume as reference (124), pp. 159–193
(with J. Gärtner and G. Maillard).
- (126) *Metastability for Kawasaki dynamics at low temperature with two types of particles*, Electronic J. Prob. 17 (2012) 1–26
(with F.R. Nardi and A. Troiani).
- (127) *Lectures on random polymers*, Clay Mathematics Proceedings, Vol. 15 (2012), pp. 319–393
(with F. Caravenna and N. Pétrélis).
* Invited paper in the Proceedings of the Clay Mathematics Institute summer school, July-August 2010, Búzios, Brazil.
- (128) *Random Polymers*, in: *Random Media at Saint-Flour*, Probability at Saint-Flour series, Springer, Heidelberg, 2012, pp. 295–558.
* Reprint of (108).
- (129) *Law of large numbers for non-elliptic random walks in dynamic random environments*, Stoch. Proc. Appl. 123 (2012) 156–190
(with R. dos Santos and V. Sidoravicius).
- (130) *Kawasaki dynamics with two types of particles: critical droplets*, J. Stat. Phys. 149 (2012) 1013–1057
(with F.R. Nardi and A. Troiani).
- (131) *Variational description of Gibbs-non-Gibbs dynamical transitions for the Curie-Weiss model*, Commun. Math. Phys. 319 (2013) 703–730
(with R. Fernández and J. Martínez).
- (132) *Variational characterization of the critical curve for pinning of random polymers*, Ann. Probab. 41 (2013) 1767–1805
(with D. Cheliotis).
- (133) *Copolymer with pinning: variational characterization of the phase diagram*, J. Stat. Phys. 152 (2013) 846–893
(with A.A. Opoku).
- (134) *A general smoothing inequality for disordered polymers*, Electron. Commun. Probab. 18 (2013), Paper no. 76, 1–15
(with F. Caravenna).
- (135) *Large deviation principles for words drawn from correlated letter sequences*, Electron. Commun. Probab. 19 (2014), Paper no. 12, 1–16
(with J. Poisat).

- (136) *Renormalisation of hierarchically interacting Cannings processes*, ALEA, Lat. Am. J. Probab. Math. Stat. 11 (2014) 43–140
(with A. Greven, S. Kliem and A. Klimovsky).
- (137) *Random walk in a high density dynamic random environment*, Indag. Mathem. 25 (2014) 785–799
(with H. Kesten and V. Sidoravicius).
* Invited paper in a special issue on Probability and Numbers.
- (138) *Heat content and inradius for regions with a Brownian boundary*, Potential Anal. 41 (2014) 501–515
(with M. van den Berg and E. Bolthausen).
- (139) *The parabolic Anderson model in a dynamic random environment: basic properties of the quenched Lyapunov exponent*, Ann. Inst. H. Poincaré Probab. Statist. 50 (2014) 1231–1275
(with D. Erhard and G. Maillard).
- (140) *Scaling of a random walk on a supercritical contact process*, Ann. Inst. H. Poincaré Probab. Statist. 50 (2014) 1276–1300
(with R. dos Santos).
- (141) *Variational description of Gibbs-non-Gibbs dynamical transitions for spin-flip systems with a Kac-type interaction*, J. Stat. Phys. 156 (2014) 203–220
(with R. Fernández and J. Martínez).
- (142) *Extremal geometry for a Brownian porous medium*, Probab. Theory Relat. Fields 160 (2014) 127–174
(with J. Goodman).
- (143) *Gibbs-non-Gibbs dynamical transitions for mean-field interacting Brownian motions*, Stoch. Proc. Appl. 125 (2015) 371–400
(with F. Redig and W. van Zuijlen).
- (144) *A copolymer near a linear interface: variational characterization of the free energy*, Ann. Probab. 43 (2015) 875–933
(with E. Bolthausen and A.A. Opoku).
- (145) *The parabolic Anderson model in a dynamic random environment: space-time ergodicity for the quenched Lyapunov exponent*, Probab. Theory Relat. Fields 162 (2015) 1–46
(with D. Erhard and G. Maillard).
- (146) *Random walk on random walks*, Electronic J. Prob. 20 (2015), Paper no. 95, 1–35
(with M. Hilário, V. Sidoravicius, R. Soares dos Santos and A. Teixeira).
- (147) *Complexe netwerken vanuit fysisch perspectief*, Nieuw Archief voor Wiskunde 5/16 (2015) 207–209
(with D. Garlaschelli and A. Roccaverde).
* Invited paper in a special issue devoted to Networks.

- (148) *Metastability – a Potential-Theoretic Approach* (**monograph**), Grundlehren der mathematischen Wissenschaften 351, Springer, Berlin, 2015, xxi + 581 pp., ISBN 978-3-319-24775-5
(with A. Bovier).
- (149) *Breaking of ensemble equivalence in networks*, Phys. Rev. Lett. 115 (2015) 268701
(with D. Garlaschelli, J. de Mol and T. Squartini).
- (150) *Annealed scaling for a charged polymer*, Mathematical Physics, Analysis and Geometry 19 (2016), Article 2, 1–87
(with F. Caravenna, N. Pétrélis and J. Poisat).
- (151) *Parabolic Anderson model in a dynamic random environment: random conductances*, Mathematical Physics, Analysis and Geometry 19 (2016), Article 5, 1–36
(with D. Erhard and G. Maillard).
- (152) *Berman-Konsowa principle for reversible Markov jump processes*, Markov Proc. Relat. Fields 22 (2016) 409–442
(with S. Jansen).
* Invited paper in a special issue devoted to Inhomogeneous Random Systems.
- (153) *Phase diagram for a copolymer in a micro-emulsion*, ALEA, Lat. Am. J. Probab. Math. Stat. 13 (2016) 1–97
(with N. Pétrélis).
- (154) *Netwerken in de statistische fysica*, Nederlands Tijdschrift voor Natuurkunde, November (2016) 374–377.
- (155) *Multi-colony Wright-Fisher with seed-bank*, Indag. Matem. 28 (2017) 637–669
(with G. Pederzani).
- (156) *Metastability for Glauber dynamics on random graphs*, Ann. Appl. Probab. 27 (2017) 2130–2158
(with S. Dommers, O. Jovanovski and F.R. Nardi).
- (157) *Metastability on the hierarchical lattice*, J. Phys. A: Math. Theor. 50 (2017) 305001
(with O. Jovanovski).
- (158) *Ensemble nonequivalence in random graphs with modular structure*, J. Phys. A: Math. Theor. 50 (2017) 015001
(with D. Garlaschelli and A. Roccaverde).
- (159) *Torsional rigidity for regions with a Brownian boundary*, Potential Anal. DOI 10.1007/s11118-017-9640-z
(with M. van den Berg and E. Bolthausen).

To appear:

- (160) *Mixing times for random walks on dynamic configuration models*, to appear in Ann. Appl. Probab.
(with L. Avena, H. Guldás and R. van der Hofstad).

- (161) *Random walks in cooling random environments*,
(with L. Avena).
* Invited paper in a Festschrift in honour of C. Newman on the occasion of his 70th birthday.
- (162) *Ensemble equivalence for dense graphs*, to appear in *Electronic J. Prob.*
(with M. Mandjes, A. Roccaverde and N.J. Starreveld).
- (163) *The hierarchical Canning process in random environment*, to appear in *ALEA, Lat. Am. J. Probab. Math. Stat.*
(with A. Greven and A. Klimovsky).
- (164) *Annealed scaling for a charged polymer in dimensions two and higher*, to appear in *J. Phys. A: Math. Theor.*
(with Q. Berger and J. Poisat).
* Invited paper in a Festschrift in honour of S. Whittington on the occasion of his 75th birthday.

Submitted:

- (165) *Expansion of percolation critical points for Hamming graphs*, submitted to *Comb. Probab. Comp.*
(with L. Federico, R. van der Hofstad and T. Hulshof).
- (166) *Torsional rigidity for cylinders with a Brownian fracture*, submitted to *Proc. London Math. Soc.*
(with M. van den Berg).
- (167) *Synchronization of phase oscillators on the hierarchical lattice*, submitted to *J. Stat. Phys.*
(with D. Garlaschelli, J. Meylahn and B. Zeegers).
- (168) *A quenched large deviation principle in a continuous scenario*, submitted to *Ann. Probab.*
(with M. Birkner).
- (169) *Metastability of hard-core dynamics on bipartite graphs*, submitted to *Electronic J. Probab.*
(with F.R. Nardi and S. Taati).

In preparation:

- (170) *Covariance structure behind breaking of ensemble equivalence*
(with D. Garlaschelli and A. Roccaverde).
- (171) *Random walk in cooling random environment: strong law of large numbers and large deviation principle*
(with L. Avena, Y. Chino and C. Costa).
- (172) *The scaling limit for critical percolation on the Hamming graph*
(with L. Federico, R. van der Hofstad and T. Hulshof).
- (173) *Glauber dynamics on the Erdős-Rényi random graph*
(with O. Jovanovski).

- (174) *Large deviations for the capacity of the Wiener sausage*
(with M. van den Berg and E. Bolthausen).
- (175) *Hitting-time asymptotics in bipartite hard-core interaction models with time-varying rates*
(with S. Borst, F.R. Nardi and S. Taati).
- (176) *Transition time asymptotics of queue-based activation protocols in random-access networks*
(with S. Borst, F.R. Nardi and M. Sfragara).
- (177) *Metastability at low temperature for continuum interacting particle systems*
(with S. Jansen).
- (178) *Metastability for the Widom-Rowlinson model*
(with S. Jansen, R. Kotecký and E. Pulvirenti).
- (179) *Spatial populations with seed-bank: well-posedness, equilibrium and finite-systems scheme*
(with A. Greven and M. Oomen).
- (180) *Spatial populations with seed-bank: cluster formation and genealogy*
(with A. Greven and M. Oomen).
- (181) *Spatial populations with seed-bank: renormalisation on the hierarchical group*
(with A. Greven and M. Oomen).
- (182) *Random walks on dynamic configuration models: a trichotomy*
(with L. Avena, H. Guldás and R. van der Hofstad).
- (183) *Two interacting charged polymer chains*
(with F. Caravenna).
- (184) *Self-interacting polymers with force: free energy and phase diagram*
(with D. Ioffe).
- (185) *A variational view on the Brownian copolymer*
(with M. Birkner).
- (186) *Scaling of the largest inradius for a two-dimensional Brownian porous medium*
(with J. Goodman).
- (187) *Extreme-value approach to metastability for Kawasaki dynamics*
(with A. Bovier and K. Bashiri).
- (188) *The continuum limit of the hierarchical Cannings process*
(with A. Greven and R. Sun).
- (189) *The continuum limit of the hierarchical Cannings process: Renormalization analysis*
(with A. Greven and R. Sun).
- (190) *The continuum limit of the hierarchical Cannings process: Genealogies*
(with A. Greven and R. Sun).

- (191) *Droplet dynamics in a two-dimensional rarified gas under Kawasaki dynamics*
(with A. Gaudillière, F.R. Nardi, E. Olivieri and E. Scoppola).
- (192) *Homogeneous nucleation for two-dimensional Kawasaki dynamics*
(with A. Gaudillière, F.R. Nardi, E. Olivieri and E. Scoppola).
- (193) *On the volume of the intersection of two Wiener sausages: proof of a conjecture*
(with M. van den Berg and E. Bolthausen).

- **Proceedings:** 3, 19–20, 29, 36, 45, 56, 66–68, 75, 82, 86, 93, 105–106, 117, 127.
- **Refereed journals:** 1–2, 4–9, 11–15, 17–18, 21–26, 28, 30–35, 37–40, 42–44, 46–47, 49–56, 58–61, 63–65, 69–71, 73, 76–81, 83, 85, 87–89, 92, 95–100, 103–104, 107, 109–111, 113–116, 119–123, 125–126, 129–146, 149–153, 155–160, 162–163.
- **Monographs:** 62, 108, 148.
- **Other:** 10, 16, 27, 41, 48, 72, 74, 84, 90–91, 94, 101–102, 112, 118, 124, 128, 147, 154, 161, 164.