

## Liste de publications

H.J. Hilhorst

1. Kinetics of the stochastic Ising chain in a two-flip model (with M. Suzuki and B.U. Felderhof), *Physica* **60** (1972) 199.
2. Kinetics of the stochastic Ising chain in a class of spin-flip models. I, *Physica* **66** (1973) 497.
3. Kinetics of the stochastic Ising chain in a class of spin-flip models. II. The effects of random kinetics, *Physica* **76** (1974) 295.
4. A transformation of lattice spin operators, *Phys. Lett.* **48A** (1974) 59.
5. On the kinetics of binary linear systems. A microscopic and a coarse-graining approach, *Thesis* (Utrecht, 1974).
6. Kinetics of clusters in a binary linear system, *Physica* **97A** (1975) 171.
7. Analysis of Monte-Carlo results on the kinetics of lattice polymer chains with excluded volume (with J.M. Deutch), *J. Chem. Phys.* **63** (1975) 5153.
8. Renormalization of the self-avoiding walk on a lattice, *Phys. Lett.* **56A** (1976) 153.
9. Real-space renormalization of the self-avoiding walk by a linear transformation, *Phys.Rev. B* **16** (1977) 1253.
10. Exact linear renormalization of a one-dimensional system with phase transition, *J. Stat. Phys.* **17** (1977) 413.
11. Real-space calculation of the spin-spin correlation in the two-dimensional Ising model above  $T_c$ , *Ann. Israel Phys. Soc.* **2** (1978) 614.
12. Differential form of real-space renormalization : exact results for two-dimensional Ising models (with M. Schick and J.M.J. van Leeuwen), *Phys. Rev. Lett.* **40** (1978) 1605.
13. Exact renormalization group equations for the two-dimensional Ising model (with M. Schick and J.M.J. van Leeuwen), *Phys.Rev. B* **19** (1979) 2749.
14. Exact differential renormalization of the Ising model at criticality (with H.J.F. Knops), *Phys. Rev. B* **19** (1979) 3689.
15. Differential real-space renormalization of the two-dimensional Gaussian model (with Y. Yamazaki), *Phys. Lett.* **70A** (1979) 329.
16. Differential real-space renormalization of the Gaussian model in three dimensions (with Y. Yamazaki and G. Meissner), *Z. Phys.* **B 35** (1979) 333.
17. Differential real-space renormalization of the  $d$ -dimensional Gaussian model (with Y. Yamazaki and G. Meissner), *J. Stat. Phys.* **23** (1980) 609.
18. Monte-Carlo measurement of the single vortex free energy in the Kosterlitz-Thouless theory (with H.N.J. Vogelij, C. van Leeuwen, and B.P.Th. Veltman), in: *Numerical Methods in the Study of Critical Phenomena*, eds. J. Della Dora, J. Demongeot, and B. Lacolle, (Springer, Berlin 1981), Vol. 9, p. 97.
19. Exact real-space renormalization: Ising, Gaussian, and Ashkin-Teller model (with J.M.J. van Leeuwen), *Physica* **106A** (1981) 301.
20. Rigorous analysis of a time-dependent inhomogeneous Coulomb gas problem in two dimensions (with D. Hilhorst and E. Marode), *Phys. Lett.* **84A** (1981) 424.
21. Pinning of a rough interface in an external potential (with J.M.J. van Leeuwen), *Physica* **107A** (1981) 319.
22. On correlation functions in random magnets (with B. Derrida), *J. Phys.* **C 14** (1981) L539.
23. Nonuniversal and anomalous decay of boundary spin correlations in inhomogeneous Ising systems (with J.M.J. van Leeuwen), *Phys. Rev. Lett.* **47** (1981) 1188.
24. The discrete Gaussian chain with  $1/r^n$  interactions: exact results (with K.H. Kjaer), *J. Stat. Phys.* **28** (1982) 621.

25. Roughening transitions and the zero-temperature triangular Ising antiferromagnet (with H.W.J. Blöte), *J. Phys.* **A15** (1982) L631.
26. Molecular dynamics of 16000 Lennard-Jones particles (with A.F. Bakker, C. Bruin, and F. van Dieren), *Phys. Lett.* **93A** (1982) 67.
27. Roughening behavior of a one-dimensional crystal surface with inverse square potential (with J. Slurink), *Physica* **120A** (1983) 627.
28. Singular behavior of certain infinite products of random 2x2 matrices (with B. Derrida), *J. Phys.* **A16** (1983) 2641.
29. Critical exponent of a directed self-avoiding walk (with H.W.J. Blöte), *J. Phys.* **A16** (1983) 3687.
30. Nonuniversality, exponent asymmetry and surface magnetization in an inhomogeneous square Ising lattice (with H.W.J. Blöte), *Phys. Rev. Lett.* **51** (1983) 2015.
31. Orientational order at the two-dimensional melting transition (with A.F. Bakker and C. Bruin), *Phys. Rev. Lett.* **52** (1984) 449.
32. Spiraling self-avoiding walks: an exact solution (with H.W.J. Blöte), *J. Phys. A* **17** (1984) L111.
33. Special purpose computers in physics (with A.F. Bakker, C. Bruin, A. Compagner, and A. Hoogland), *J. Stat. Phys.* **34** (1984) 987.
34. Schaalwetten voor polymeren en polymeeroplossingen, *Ned. T. v. Natuurk.* **A50** (1984) 40.
35. Triangular SOS models and cubic-crystal shapes (with B. Nienhuis and H.W.J. Blöte), *J. Phys. A* **17** (1984) 3559.
36. Boundary magnetization and spin correlations in inhomogeneous two-dimensional Ising systems (with T.W. Burkhardt, I. Guim, and J.M.J. van Leeuwen), *Phys. Rev. B* **30** (1984) 1486.
37. Surface critical behavior of the smoothly inhomogeneous planar Ising model: the Pfaffian method (with H.W.J. Blöte), *J. Phys. A* **18** (1985) 3039.
38. A molecular dynamics simulation of liquid-vapor interfaces in two dimensions (with J.H. Sikkenk and A.F. Bakker), *Physica A* **131** (1985) 587.
39. Random (free) energies in spin glasses (with C. de Dominicis), *J. Physique Lett.* **46** (1985) 909.
40. Spezialcomputer in der Physik (with H.J. Herrmann), *Physik. Blätter* **42** (1986) 52.
41. Hierarchical Monte Carlo simulation of the Ising model (with M. Faas), *Physica A* **135** (1986) 571.
42. On the approach of the stationary state in Kauffman's random Boolean network (with M. Nijmeijer), *J. Physique* **48** (1987) 185.
43. Power law relaxation in the Random Energy Model (with G.J.M. Koper), *Europhys. Lett.* **3** (1987) 1213.
44. Een reeks van misverstanden..., *Inaugural address*, Leyden University, 1987 (Theme: The history of the XY model).
45. Ground state and quenched state properties of a one-dimensional interacting lattice gas in a random potential (with Y. Fonk), *J. Stat. Phys.* **49** (1987) 1235.
46. A domain theory for linear and nonlinear aging effects in spin glasses (with G.J.M. Koper), *J. Physique* **49** (1988) 429.
47. Single-vacancy induced motion of a tracer particle in a two-dimensional lattice gas (with M.J.A.M. Brummelhuis), *J. Stat. Phys.* **53** (1988) 249.
48. Nonequilibrium dynamics and aging in a one-dimensional Ising spin glass (with G.J.M. Koper), *Physica A* **155** (1989) 431.
49. Tracer particle motion in a two-dimensional lattice gas with low vacancy density (with M.J.A.M. Brummelhuis), *Physica A* **156** (1989) 575.
50. Nonexponential relaxation in the Random Energy Model (with G.J.M. Koper), *Physica A* **160** (1989) 1.

- 51.** Acceleration of spin glass dynamics by temperature variations (with G.J.M. Koper), *Physica A* **164** (1990) 35.
- 52.** A theory of aging in spin glasses, in : *Proceedings of the VIIth Summer School on Fundamental Problems in Statistical Mechanics*, ed. H. van Beijeren (North-Holland, Amsterdam, 1990), p. 311.
- 53.** Correlations between two Ising chains subject to a common thermal noise (with M.J.A.M. Brummelhuis), *Physica A* **166** (1990) 75.
- 54.** The number of distinct sites visited by a tracer particle (with M.J.A.M. Brummelhuis), *J. Phys. A* **23** (1990) L827.
- 55.** Memory effects in the dynamic response of a random two-spin Ising system (with M. Nifle), *J. Physique I* **1** (1991) 63.
- 56.** Covering of a finite lattice by a random walk (with M.J.A.M. Brummelhuis), *Physica A* **176** (1991) 387.
- 57.** Zeros on the temperature axis of spin correlations in a random bond Ising chain (with M. Nifle), *J. Phys. A* **24** (1991) 2397.
- 58.** The pair correlation function in a randomly sequentially filled one-dimensional lattice (with C. Monthus), *Physica A* **175** (1991) 263.
- 59.** The spiralling self-avoiding walk in a random environment (with M. Nifle), *J. Phys. A* **25** (1991) 285.
- 60.** Size effect in a nucleation and growth transformation (with O. Delcourt and M. Descamps), *Ferroelectrics* **124** (1991) 109.
- 61.** On a conjecture by Hagan and Brenner (with D. Hilhorst), in *Nonlinear Diffusion Equations and Their Equilibrium States*, 3, eds. N.G. Lloyd, W.M. Ni, L.A. Peletier, and J. Serrin, *Progress in Nonlinear Differential Equations* (Birkhäuser, Boston 1992), p. 237.
- 62.** How a random walk covers a finite lattice (with M.J.A.M. Brummelhuis), *Physica A* **185** (1992) 35.
- 63.** New critical-point exponent and new scaling laws for short-range Ising spin glasses (with M. Nifle), *Phys. Rev. Lett.* **68** (1992) 2992.
- 64.** Chaos exponents in spin glasses (with M. Ney-Nifle), *Physica A* **193** (1993) 48.
- 65.** Renormalization theory and chaos exponents in random systems (with M. Ney-Nifle), *Physica A* **194** (1993) 462.
- 66.** Chiral and spin correlation functions in a random bond XY ladder (with M. Ney-Nifle and M.A. Moore), *Phys. Rev. B* **48** (1993) 10254.
- 67.** Equilibrium scaling laws for layered spin glass systems (with M.J. Thill), *J. de Physique I* **3** (1993) 2041.
- 68.** Exact bounds from a new series expansion method for Random Sequential Adsorption (with S. Caser), *J. Phys. A* **27** (1994) 7969.
- 69.** Chiral and spin order in the two-dimensional  $\pm J$  XY spin glass: domain wall scaling analysis (with M. Ney-Nifle), *Phys. Rev. B* **51** (1995) 8357.
- 70.** Finite size effects on the approach of complete wetting (with M.J.P. Nijmeijer), *J. Phys. A* **28** (1995) 2133.
- 71.** Random Sequential Adsorption of hard disks and squares: exact bounds (with S. Caser), *J. Phys. A* **28** (1995) 3887.
- 72.** Chiral and continuous symmetry of an XY spin glass on a tube lattice (with M.J. Thill and M. Ney-Nifle), *J. Phys. A* **28** (1995) 4285.
- 73.** Theory of the critical state of low-dimensional Ising spin glass (with M.J. Thill), *J. de Physique I* **6** (1996) 67.
- 74.** Coloring of a one-dimensional lattice by two independent random walkers (with S.R. Gomes Júnior, L.S. Lucena, and L.R. da Silva), *Physica A* **225** (1996) 81.
- 75.** Topology of the support of the two-dimensional lattice random walk (with S. Caser), *Phys. Rev. Lett.* **77** (1996) 992.
- 76.** Statistical properties of the set of sites visited by the two-dimensional random walk (with F. van Wijland and S. Caser), *J. Phys. A* **30** (1997) 507.

- 77.** Universal fluctuations in the support of the random walk (with F. van Wijland), *J. Stat. Phys.* **89** (1997) 119.
- 78.** Wilson renormalization of a reaction–diffusion problem (with F. van Wijland and K. Oerding), *Physica A* **251** (1998) 179.
- 79.** Lévy flight spreading of epidemic processes leading to percolating clusters (with H.K. Janssen, K. Oerding, and F. van Wijland), *Eur. Phys. J. B* **7** (1999) 137.
- 80.** Persistence exponent of the diffusion equation in  $\epsilon$  dimensions, *Physica A* **277** (2000) 124.
- 81.** Persistence exponents of non-Gaussian processes in statistical mechanics (with O. Deloubrière), *J. Phys. A* **33** (2000) 1993.
- 82.** Fluctuation-induced first-order transition in a nonequilibrium steady state (with K. Oerding, F. van Wijland, and J.-P. Leroy), *J. Stat. Phys.* **99** (2000) 1365.
- 83.** Critical behavior of a two-species reaction-diffusion problem (with J.E. de Freitas, L.S. Lucena, and L.R. da Silva), *Phys. Rev. E* **61** (2000) 6330.
- 84.** Statistics of the one-dimensional Riemann walk (with A.M. Mariz, F. van Wijland, S.R. Gomes Júnior, and C. Tsallis), *J. Stat. Phys.* **102** (2001) 259.
- 85.** Reply to “Comment on “Critical behavior of a two-species reaction-diffusion problem” ” (with J.E. de Freitas, L.S. Lucena, and L.R. da Silva), *Phys. Rev. E* **63** (2001) 066118.
- 86.** Equivalence of stationary state ensembles (with F. van Wijland), *Phys. Rev. E* **65** (2002) 035103(R).
- 87.** Phase transition in a two-dimensional Heisenberg model (with H.W.J. Blöte and W.-A. Guo), *Phys. Rev. Lett.* **88** (2002) 047203.
- 88.** Imaginary noise and parity conservation in the reaction  $A + A \rightleftharpoons 0$  (with O. Deloubrière, L. Frachebourg, and K. Kitahara), *Physica A* **308** (2002) 135.
- 89.** Repeated bond traversal probabilities for the simple random walk (with T. Antal and R.K.P. Zia), *J. Phys. A* **35** (2002) 8145.
- 90.** Multi-species pair annihilation reactions (with O. Deloubrière and U. Täuber), *Phys. Rev. Lett.* **89** (2002) 250601.
- 91.** Segregation in diffusion-limited multi-species pair annihilation (with O. Deloubrière, M.J. Washenberger, and U.C. Täuber), *J. Phys. A* **37** (2004) 7063.
- 92.** Symmetry and species segregation in diffusion-limited pair annihilation (with M.J. Washenberger and U.C. Täuber), *J. Stat. Mech.* (2004) P10002 (19 pages).
- 93.** The perimeter of large planar Voronoi cells: a double-stranded random walk, *J. Stat. Mech.* (2005) L02003 (9 pages).
- 94.** Asymptotic statistics of the  $n$ -sided planar Poisson-Voronoi cell: I. Exact results, *J. Stat. Mech.* (2005) P09005 (45 pages).
- 95.** Planar Voronoi cells: the violation of Aboav’s law explained, *J. Phys. A: Math. Theor.* **39** (2006) 7227.
- 96.** Single-site approximation for reaction-diffusion processes (with L. Canet), *J. Stat. Phys.* **125** (2006) 517.
- 97.** New Monte Carlo method for planar Poisson-Voronoi cells, *J. Phys. A: Math. Theor.* **40** (2007) 2615.
- 98.** A note on  $q$ -Gaussians and non-Gaussians in statistical mechanics (with G. Schehr), *J. Stat. Mech.* (2007) P06003 (14 pages).
- 99.** Statistical properties of planar Voronoi tessellations, *European Physical Journal B* **64** (2008) 437.
- 100.** Random line tessellations of the plane: statistical properties of many-sided cells (with P. Calka), *J. Stat. Phys.* **132** (2008) 627-647.
- 101.** Sylvester’s question and the Random Acceleration Process (with P. Calka and G. Schehr), *J. Stat. Mech.* (2008) P10010 (25 pages).
- 102.** Central limit theorems for correlated variables: some critical remarks, *Brazilian J. Phys.* **39** (2009) 371-379.

- 103.** Asymptotic statistics of the  $n$ -sided planar Poisson-Voronoi cell: II. Heuristics, *J. Stat. Mech.* (2009) P05007 (19 pages).
- 104.** Heuristic theory for many-faced  $d$ -dimensional Poisson-Voronoi cells, *J. Stat. Mech.* (2009) P08003 (14 pages).
- 105.** Spontaneous symmetry breaking in a two-lane model for bidirectional overtaking traffic (with C. Appert-Rolland and G. Schehr), *J. Stat. Mech.* (2010) P08024 (41 pages).
- 106.** Note on a  $q$ -modified central limit theorem, *J. Stat. Mech.* (2010) P10023 (9 pages).
- 107.** Two interacting Ising chains in relative motion, *J. Stat. Mech.* (2011) P04009 (26 pages).
- 108.** Frozen shuffle update for an asymmetric exclusion process on a ring (with C. Appert-Rolland and J. Cividini), *J. Stat. Mech.* (2011) P07009 (16 pages).
- 109.** Frozen shuffle update for an asymmetric exclusion process with open boundary conditions (with C. Appert-Rolland and J. Cividini), *J. Stat. Mech.* (2011) P10013 (19 pages).
- 110.** Intersection of two TASEP traffic lanes with frozen shuffle update (with C. Appert-Rolland and J. Cividini), *J. Stat. Mech.* (2011) P10014 (17 pages).
- 111.** A multi-lane TASEP model for crossing pedestrian traffic flows (with C. Appert-Rolland), *J. Stat. Mech.* (2012) P06009 (24 pages).
- 112.** Diagonal patterns and chevron effect in intersecting traffic flow (with J. Cividini and C. Appert-Rolland), *Europhys. Lett.* **102** (2013) 20002 (5 pages).
- 113.** Crossing pedestrian traffic flows, the diagonal stripe pattern, and the chevron effect (with J. Cividini and C. Appert-Rolland), *J. Phys. A: Math. Theor.* **46** (2013) 345002 (29 pages).
- 114.** Continuous and first-order jamming transition in crossing pedestrian traffic flows (with J. Cividini and C. Appert-Rolland), in *Perspectives and Challenges in Statistical Physics and Complex Systems for the Next Decade*, Eds. G. M. Viswanathan, E. P. Raposo, and M. G. E. da Luz (World Scientific, 2014).
- 115.** Large- $n$  conditional facedness  $m_n$  of 3D Poisson-Voronoi cells, *J. Stat. Mech.* (2014) P04015 (16 pages).
- 116.** Exact domain wall theory for deterministic TASEP with parallel update (with J. Cividini and C. Appert-Rolland), *J. Phys. A: Math. Theor.* **47** (2014) 222001 (10 pages).
- 117.** Many-faced cells and many-edged faces in 3D Poisson-Voronoi diagrams (with E.A. Lazar), *J. Stat. Mech.* (2014) P10021 (22 pages).
- 118.** Stripe formation instability in crossing traffic flows (with J. Cividini), *J. Phys. A: Math. Theor.* **47** (2014) 445002 (24 pages).
- 119.** A parity breaking Ising chain Hamiltonian as a Brownian molecular motor (with F. Cornu), *Europhys. Lett.* **108** (2014) 10002.
- 120.** Pedestrian flows: from individuals to crowds (with C. Appert-Rolland, J. Cividini, and P. Degond), Proceedings PED2014, Transportation Research Procedia **2** (2014) 468-476.

Furthermore:

*Themes of the Nineties in Statistical Physics*, Festschrift in honour of J.M.J. van Leeuwen on his 65th birthday, edited by M.H. Ernst and H.J. Hilhorst, published as Vol. **251** of *Physica A* (North-Holland, Amsterdam, 1998).