

## PUBLICATIONS OF RONALD MEESTER

### Scientific mathematical publication

1. *An algorithm for calculating critical probabilities and percolation functions in percolation models defined by rotations*, Ergodic Theory and Dynamical Systems **8**, 495-509 (1989).
2. *Infinite clusters and critical values in two-dimensional circle percolation* (with Thomas Nowicki), Israel Journal of Mathematics **68**, 63-81 (1989).
3. *On the structure of Mandelbrot's percolation process and other random Cantor sets* (with Michel Dekking), Journal of Statistical Physics **58**, 1109-1126 (1990).
4. *Stability properties of a flow process in graphs* (with Rob v.d. Berg), Random Structures and Algorithms **2**, 335-341 (1991).
5. *Connectivity in fractal percolation*, Journal of Theoretical Probability **5**, 775-789 (1992).
6. *Long range percolation in stationary point processes* (with Robert Burton), Random Structures and Algorithms **4**, 177-190 (1993).
7. *On 1-dependent processes and  $k$ -block factors* (with Marc Goulet and Robert Burton), Annals of Probability **21**, 2157-2168 (1993).
8. *Uniqueness of unbounded occupied and vacant components in Boolean models* (with Rahul Roy), Annals of Applied Probability **4**, 933-951 (1994).

9. *Uniqueness in percolation theory; a review*, *Statistica Neerlandica* **48**, 237-252 (1994).
10. *Non-universality and continuity of the critical covered volume fraction in continuum percolation* (with Anish Sarkar and Rahul Roy), *Journal of Statistical Physics* **75**, 123-134 (1994).
11. *Stationary straight-line representations of stationary random graphs* (with Robert Burton and In-Kyeong Choi), *Indagationes Mathematicae* **6**, 267-277 (1995).
12. *Ergodic properties of a dynamical system arising from percolation theory* (with Cor Kraaikamp), *Ergodic Theory and Dynamical Systems* **15**, 653-661 (1995).
13. *Equality of critical densities in continuum percolation*, *Journal of Applied Probability* **32**, 90-104 (1995).
14. *Asymptotic shapes in stationary first passage percolation* (with Olle Häggström), *Annals of Probability* **23**, 1511-1522 (1996).
15. *On the continuity of the critical value for long range percolation in the exponential case* (with Jeffrey Steif), *Communications in Mathematical Physics* **180**, 483-504 (1996).
16. *Nearest neighbour and hard sphere models in continuum percolation* (with Olle Häggström), *Random Structures and Algorithms* **9**, 295-315 (1996).
17. *Continuum percolation* (with Rahul Roy), *Cambridge Tracts in Mathematics* **119**, *Cambridge University Press*, ISBN 0-521-47504-X (1996).

18. *Consistent estimation of percolation quantities* (with Jeffrey Steif), *Statistica Neerlandica* **52**, 226-238 (1998).
19. *Entropy for random group actions* (with Robert Burton and Karma Dajani), *Ergodic Theory and Dynamical Systems* **18**, 109-124 (1998).
20. *The random connection model in high dimensions* (with Mathew Penrose and Anish Sarkar), *Statistics and Probability Letters* **35**, 145-153 (1997).
21. *Convergence of continued fraction type algorithms and generators* (with Cor Kraaikamp), *Monatshefte für Mathematik* **125**, 1-14 (1998).
22. *Phase transitions in a dependent parametric bond percolation model* (with Matthew Harris), *Markov Processes and Related Fields* **2**, 513-528 (1996).
23. *Dynamic Boolean models* (with Rob v.d. Berg and Damien White), *Stochastic Processes and their Applications* **69**, 247-257 (1997).
24. *Lecture notes in percolation*, in *Percolation Theory and Particle Systems*, proceedings ISI meeting 1996, edited by Rahul Roy, 9-24 (1997).
25. *A simple proof of the exponential convergence of the modified Jacobi-Perron algorithm*, *Ergodic Theory and Dynamical Systems* **19**, 1077-1083 (1999).
26. *Extremal points of infinite clusters in stationary percolation*, *Statistics and Probability Letters* **42**, 361-365 (1999).

27. *Higher-dimensional subshifts of finite type, factor maps and measures of maximal entropy* (with Jeffrey Steif), Pacific Journal of Mathematics **200**, nr. 2, 497-510 (2001).
28. *Stability and weakly convergent approximations of queueing systems on a circle* (with Corrie Quant), submitted (2001).
29. *Modelling and prediction of classical swine fever epidemics*, (with Jan de Koning, Mart de Jong and Odo Diekmann), Biometrics **58** nr. 1, 178-184 (2002).
30. *100% kans - de zin en onzin van de waarschijnlijkheidsrekening*, VU uitgeverij, ISBN 90 - 5383 - 703 - 5 (2000).
31. *Infinite paths with bounded or recurrent partial sums* (with Lorna Booth), Probability Theory and Related Fields **120**, 118-142 (2001).
32. *On a long range particle system with unbounded flip rates* (with Corrie Quant), Markov Processes and Related Fields **9** nr. 1, 59-84 (2003).
33. *Probabilities for dopant pair-state formation in a nanocrystal: simulations and theory* (with J.F. Suyver, J.J. Kelly and A. Meijerink), Physical Review B **64**, 235408/1 - 235406/6 (2001).
34. *Pair-state formation in a nanocrystal: a theoretical perspective* (with J.F. Suyver, J.J. Kelly and A. Meijerink), Mat. Res. Soc. Symp. Proc. **676**, Y6.8.1 - Y6.8.6 (2001).
35. *The Abelian sandpile; a mathematical introduction* (with Frank Redig and Dmitri Znamenski), Markov Processes and Related Fields **7**, nr. 4, 509-523 (2001).

36. *Covering algorithms, continuum percolation and the geometry of wireless networks* (with Lorna Booth, Jehoshua Bruck and Massimo Franceschetti), *The Annals of Applied Probability* **13**, 722-741 (2003).
37. *Non-triviality of a discrete Bak-Sneppen evolution model* (with Dmitri Znamenski), *Journal of Statistical Physics* **109**, 987-1004 (2002).
38. *Limit behavior of the Bak-Sneppen evolution model* (with Dmitri Znamenski), *Annals of Probability* **31**, 1986-2002 (2003).
39. *The evidential value in the DNA database search controversy and the two-stain problem* (with Marjan Sjerps), *Biometrics* **59**, 727-732 (2003).
40. *The local threshold for geographical spread of infectious diseases between farms* (with Gert-Jan Boender, Mart de Jong and Edo Gies), *Preventive Veterinary Medicine* **82**, 90-101 (2007).
41. *Performance of real-time parameter estimation of classical swine fever epidemics* (with Don Klinkenberg and Mart de Jong), submitted (2003).
42. *A theory waiting for an experiment: pair-state formation in a nanocrystal* (with Freek Suyver, J. Kelly and A. Meijerink), *Journal of Luminescence* **102-103**, 182-188 (2003).
43. *Why the effect of prior odds should accompany the likelihood ratio when reporting DNA evidence* (with Marjan Sjerps), (Invited paper), *Law, Probability and Risk* **3**, 51-62. (2004).
44. *Response to Dawid, Balding, Triggs and Buckleton* (with Marjan Sjerps) *Law, Probability and Risk* **3**, 83-86. (2004).

45. *Random entropy and recurrence* (with Karma Dajani), International Journal of Mathematical Sciences **47**, 2977-2988 (2003).
46. *Critical thresholds and the limit distribution in the Bak-Sneppen model*, (with Dmitri Znamenski), Communications in Mathematical Physics **246**, 63-86 (2004).
47. *On central limit theorems in the random connection model*, (with Tim van de Brug), Physica A **332**, 263-278 (2004).
48. *Continuum percolation with unreliable and spread-out connections*, (with Lorna Booth, Matthew Cook, Massimo Franceschetti and Jehoshua Bruck), Journal of Statistical Physics **118**, 719-732 (2004).
49. *A branching model for the spread of infectious animal diseases in varying environments*, (with Pieter Trapman en Hans Heesterbeek), Journal of Mathematical Biology **49**, 553-576 (2004).
50. *A Natural Introduction to Probability Theory*, Birkhäuser (2003).
51. *Navigation in small world networks, a scale-free continuum approach*, (with Massimo Franceschetti), Journal of Applied Probability **43**, 1173 - 1180 (2006).
52. *Connections between 'self organised' and 'classical' criticality*, (with Corrie Quant), (Invited paper), Markov Processes and Related Fields **11**, 355-370 (2005).
53. *Maximal avalanches in the Bak-Sneppen model*, (with Alexis Gillett and Peter van der Wal), Journal of Applied Probability **43**, 840 - 851 (2006).

54. *The size of components in continuum nearest-neighbour graphs*, (with Iva Kozakova and Seema Nanda), The Annals of Probability **34**, 528-538 (2006).
55. *Estimation in branching processes with restricted observations*, (with Pieter Trapman), Advances of Applied Probability **38**, 1098-1115 (2006).
56. *Critical nodes lifetimes in random networks via the Chen-Stein method* (with Massimo Franceschetti), IEEE Transactions of Information Theory **52**, 2831-2837 (2006).
57. *On the (ab)use of statistics in the legal case against the nurse Lucia de B.* (with Richard Gill, Marieke Collins and Michiel van Lambalgen), Law, Probability and Risk doi: 10.1093/lpr/mgm003 (2007).
58. *Generating stationary random graphs on  $Z$  with prescribed i.i.d. degrees* (with Maria Deijfen), Advances in Applied Probability **38**, 287-298 (2006).
59. *Bounds for critical values of the Bak-Sneppen model on transitive graphs* (with Alexis Gillett and Misja Nuyens), Markov Processes and Related Fields **12**, 679 - 694 (2006).
60. *Percolation in the signal to noise interference ratio graph* (with Olivier Dousse, Massimo Franceschetti, Nicolas Macris and Patrick Thiran), Journal of Applied Probability **43**, 552 - 562 (2006).
61. *A note on percolation in cocycle measures*, IMS Lecture Notes-Monograph Series Dynamics & Stochastics (Festschrift for Mike Keane), 37-46 (2006).

62. *A probabilistic approach to Zhang's sandpile model* (with Anne Fey, Frank Redig and Corrie Quant), *Communications in Mathematical Physics* **280**, 351 - 388 (2008).
63. *Survival of inhomogeneous Galton-Watson processes* (with Erik Broman), *Advances of Applied Probability* **40**, 798-814 (2008).
64. *Random networks for communication* (with Massimo Franceschetti), Cambridge University Press (2007).
65. *Sharp phase transitions and critical behaviour in 2D divide and colour models* (with Andras Balint and Federico Camia), *Stochastic Processes and their Applications* **119**, 937-965 (2009).
66. *Stabilizability and percolation in the infinite volume sandpile model* (with Anne Fey-den Boer and Frank Redig), *The Annals of Probability* **37**, 654-675 (2009).
67. *Simulation of biological evolution and the no free lunch theorems*, *Biology and Philosophy* **24**, 461-472 (2009).
68. *Geometric properties of two-dimensional near-critical percolation* (with Federico Camia and Matthijs Joosten), *Journal of Statistical Physics* **137**, 57-69 (2009).
69. *The high temperature Ising model is a critical percolation model* (with Andras Balint and Federico Camia), *Journal of Statistical Physics* **139**, 122-138 (2010).
70. *Uniqueness of the stationary distribution and stabilizability in Zhang's sandpile model* (with Anne Fey-den Boer and Haiyan Liu), *Electronic*

Journal of Probability **14**, 895-911 (2009).

71. *Selection effects and database screening in forensic science* (with Marjan Sjerps), Forensic Science International **192**, 56-61 (2009).
72. *Bounding basic characteristics of spatial epidemics with a new percolation model* (with Pieter Trapman), Advances in Applied Probability **43**, 335-347 (2011).
73. *Existence and uniqueness of the stationary measure in a continuous sandpile* (with Haiyan Liu and Wouter Kager), Markov Processes and Related Fields **16**, 185-204 (2010).
74. *Long range percolation on the hierarchical lattice* (with Slavik Koval and Pieter Trapman), submitted (2011).
75. *Dimension (in)equalities and Hölder continuous curves in fractal percolation* (with Erik Broman, Federico Camia and Matthijs Joosten), to appear in The Journal of Theoretical probability (2012).
76. *Forensic identification: the Island Problem and its generalisations* (with Klaas Slooten), Statistica Neerlandica **65**, 202 - 237 (2011).
77. *On an alleged completion of an infinite epistemic regress* (with René van Woudenberg), submitted (2011).
78. *Stochastic domination and weak convergence of conditioned Bernoulli random vectors* (with Erik Broman, Tim van de Brug and Wouter Kager), submitted (2011).
79. *Database likelihood ratios and Familial DNA searching* (with Klaas Slooten), submitted (2011).

80. *Fat fractal percolation and k-fractal percolation* (with Erik Broman, Tim van de Brug, Federico Camia and Matthijs Joosten), submitted (2011).
81. *DNA Databases - The significance of unique hits and the database controversy*, Wiley Encyclopedia of Forensic Science, item FS1036 (2011).
82. *Rigorous self-organised criticality in the modified Bak-Sneppen model* (with Anish Sarkar), submitted (2012).

### Popular mathematical publications

1. *Hoeveel wachtenden zijn er voor u?*, Nieuwe Wiskrant **16**, nr. 3, 30-37 (1997).
2. *Verwarring door onvolledige informatie: conditionele kansen*, Nieuwe Wiskrant **17**, nr. 3, 20-21 (1998).
3. *Conditionele kansen II: gevangenens, cipiers en enveloppen*, Nieuwe Wiskrant **17**, nr. 4, 26-29 (1998).
4. *Boekbespreking; over Huygens' Van rekeningh in spelen van geluck*, Nieuwe Wiskrant **18**, nr. 1, 29-30 (1998).
5. *Boekbespreking; kansrekening en statistiek*, Nieuwe Wiskrant **19**, nr. 3, 20-21 (2000).
6. *De rol van kansrekening in het dagelijks leven*, Nieuwe Wiskrant **20**, nr. 2, 27-30 (2000).
7. *Boekbespreking: Kop of Munt*, Nieuwe Wiskrant **21**, nr. 2, 46 (2001).

8. *Zin en onzin van de waarschijnlijkheidsrekening*, Nieuw Archief Wiskunde 5/1, **3**, 232-238 (2000).
9. *De kinderen van Ruud*, Pythagoras **39**, nr. 6, 18-20 (2000).
10. *De zin en onzin van de waarschijnlijkheidsrekening*, Skepter **13**, nr. 3, 38-41 (2000).
11. *Wat zeggen al die getallen eigenlijk? De statistiek rond het proces Lucia de B.*, (with Michiel van Lambalgen), TREMA **7**, 286-293, september (2004).
12. *Voorzichtig met statistiek in de rechtszaal!*, StatOr **5** nr. 2, 16-20 (2004).
13. *Redeneren met de regel van Bayes*, Euclides **81**, 189-192 (2006).
14. *Statistiek en kansrekening in het strafrecht*, Ars Aequi **56**, 675-677 (2007).
15. *Lucia de B. en de statistiek*, Euclides **83**, 160-163 (2008).
16. *Kansrekening en statistiek bij de verspreiding van besmettelijke ziektes*, Euclides **83**, 216-219 (2008).
17. *In reactie op Hessel Pot*, Euclides **85** (2009).
18. *De database-controverse*, StatOr **12** nr. 3-4, 52-55 (2011).
19. *Zoeken naar familie van misdadigers via DNA*, Kennislink (2012).

**Philosophical and theological publications (mostly in dutch)**

1. *God, wetenschap en toeval I*, Gamma (stichting Teilhard de Chardin) **8**, nr. 4 (2001).
2. *God, wetenschap en toeval II*, Gamma (stichting Teilhard de Chardin) **8**, nr. 5 (2001).
3. *Two forms of explanantion: a response to Keith Ward*, in *Reality, Science and Value: Is Nature ever evil?* (Willem Drees, ed.), 270-273 Routledge (2002).
4. *Pleidooi voor een open houding ten aanzien van de historische oorsprong van het leven* (with Cees Dekker), *Skepter* **15**, nr. 4, 42-45 (2002).
5. *Het pseudoniem van God*, ISBN 90 259 5372 7 Ten Have Baarn (2003).
6. *Ontwerp in natuurwetenschap; een zinvol concept?*, *Radix* **30**, 1-20 (2004).
7. *Kracht en zwakte van negatieve apologetiek*, *Wapenveld* **54**, 25-32, (2004).
8. *Filosofie houdt wetenschap bij de les*, in 'Het nut van filosofie', 24-32 (2004).
9. *Schitterend ongeluk of sporen van ontwerp?* (with Cees Dekker and Rene van Woudenberg, eds.), Ten Have Baarn (2005).
10. *Boedelscheiding tussen religie en wetenschap is onzinnig en vervlakkend*, in 'Ongekend nieuwsgierig' (Bart Voorsluis red.), Meinema (2005).

11. *En God beschikte een worm* (with Cees Dekker and Rene van Woudenberg, eds.), Ten Have Baarn (2006).
12. *De man die God kende - christelijke spiritualiteit voor niet-ongelovigen*, Ten Have Baarn (2007).
13. *Van God Los*, in *Zien is geloven*, Manon Duintjer (red.), Ambo (2009).
14. *De zin en onzin van Intelligent Design*, *Ad Rem* **21 (2)**, 6-8 (2010).
15. *Wat is wiskunde? De rol van logica en creativiteit*, *De Academische Boekengids* **89**, 5-7 (2011).