

## BOOKS

1. A.C.C. Coolen, ‘The Mathematical Theory of Minority Games - Statistical Mechanics of Interacting Agents’ (Oxford University Press 2005)
2. A.C.C. Coolen, R. Kühn and P. Sollich, ‘Theory of Neural Information Processing Systems’ (Oxford University Press 2005)

## PUBLICATIONS IN SCIENTIFIC JOURNALS

1. A.C.C. Coolen and D. van Norren, *Biol. Cybern.* 58 (1988), 123-128  
*‘Kinetics of Human Cone Photopigment Explained with a Rushton-Henry Model’*
2. A.C.C. Coolen and C.C.A.M. Gielen, *Europhys. Lett.* 7 (1988), 281-285  
*‘Delays in Neural Networks’*
3. A.C.C. Coolen and Th.W. Ruijgrok, *Phys. Rev.* A38 (1988), 4253-4255  
*‘Image Evolution in Hopfield Networks’*
4. A.C.C. Coolen, H.J.J. Jonker and Th.W. Ruijgrok, *Phys. Rev.* A40 (1989), 5295-5298  
*‘Size of the Domains of Attraction in the Hopfield Model’*
5. A.C.C. Coolen and F.W. Kuijk, *Neural Networks* 2 (1989), 495-506  
*‘A Learning Mechanism for Invariant Pattern Recognition in Neural Networks’*
6. A.C.C. Coolen and A.J. Noest, *J. Phys.* A23 (1990), 575-579  
*‘Selective Pattern Recall in Neural Networks by Chemical Modulation’*
7. A.C.C. Coolen, *Future Generations Computer Systems* 6 (1990), 121-130  
*‘Ising Spin Neural Networks with Spatial Structure’*
8. Th.W. Ruijgrok and A.C.C. Coolen, *Acta Phys. Pol.* B21 (1990), 379-389  
*‘Generalised Hopfield Models for Neural Networks’*
9. P.F.M.J. Verschure and A.C.C. Coolen, *Network* 2 (1991), 189-206  
*‘Adaptive Fields: Distributed Representations of Classically Conditioned Associations’*
10. A.C.C. Coolen, *J. Phys.* A24 (1991), 2665-2675  
*‘Analytical Expressions for Neural Interactions which Improve upon the Projector Rule’*
11. A.C.C. Coolen, *Europhys. Lett.* 16 (1991), 73-78  
*‘On the Relation between Stability Parameters and Sizes of Domains of Attraction in Attractor Neural Networks’*
12. H.J.J. Jonker and A.C.C. Coolen, *J. Phys.* A24 (1991), 4219-4234  
*‘Unsupervised Dynamic Learning in Layered Neural Networks’*
13. A.C.C. Coolen and L.G.V.M. Lenders, *J. Phys.* A25 (1992), 2577-2592  
*‘Dual Processes in Neural Network Models I: Neural Dynamics versus Dynamics of Learning’*
14. A.C.C. Coolen and L.G.V.M. Lenders, *J. Phys.* A25 (1992), 2593-2606  
*‘Dual Processes in Neural Network Models II: Analysis of Zero-temperature Fixed-Point Equations’*
15. M. Bartholomeus and A.C.C. Coolen, *Biol. Cybern.* 67 (1992), 285-290  
*‘Sequences of Smoothly Correlated Patterns in Neural Networks with Random Transmission Delays’*
16. A.C.C. Coolen and D. Sherrington, *J. Phys.* A25 (1992), 5493-5526  
*‘Competition Between Pattern Reconstruction and Sequence Processing in Non-Symmetric Neural Networks’*
17. H.J.J. Jonker and A.C.C. Coolen, *J. Phys.* A26 (1993), 563-579  
*‘Learning in Neural Networks by Eliminating Frustrated Bonds’*
18. D. Sherrington, K.Y.M. Wong and A.C.C. Coolen, *J. Physique I* 3 (1993), 331-337  
*‘Noise and Competition in Neural Networks’*
19. L. Viana and A.C.C. Coolen, *J. Physique I* 3 (1993), 777-786  
*‘Attraction Domains in Neural Networks’*
20. A.C.C. Coolen, A.J. Noest and G.B. de Vries, *Network* 4 (1993), 101-116  
*‘Modelling Chemical Modulation of Neural Processes’*
21. H.J.J. Jonker, A.C.C. Coolen and J.J. Denier van der Gon, *J. Phys.* A26 (1993), 2549-2571  
*‘On the Function and Development of Spatial Structure in Layered Neural Networks’*
22. W.A.J.J. Wiegerinck and A.C.C. Coolen, *J. Phys.* A26 (1993), 2535-2548  
*‘The Connections of Large Perceptrons’*
23. R.W. Penney, A.C.C. Coolen and D. Sherrington, *J. Phys.* A26 (1993), 3681-3695  
*‘Coupled Dynamics of Fast Spins and Slow Interactions in Neural Networks and Spin Systems’*
24. A.C.C. Coolen, R.W. Penney and D. Sherrington, *Phys. Rev.* B48 (1993), 16116-16118  
*‘Coupled Dynamics of Fast Spins and Slow Interactions: An Alternative Perspective on Replicas’*
25. A.C.C. Coolen and D. Sherrington, *Phys. Rev. Lett.* 71 (1993), 3886-3889  
*‘Dynamics of Fully Connected Attractor Neural Networks near Saturation’*

26. A.C.C. Coolen and D. Sherrington, *Physica A* 200 (1993), 602-607  
*'Equilibrium Distributions of Stochastic Networks without Detailed Balance'*
27. A.C.C. Coolen and D. Sherrington, *Phys. Rev. E* 49 (1994), 1921-1934  
*'Order Parameter Flow in the Fully Connected Hopfield Model near Saturation'*
28. A.C.C. Coolen and S. Franz, *J. Phys. A* 27 (1994), 6947-6954  
*'Closure of Macroscopic Laws in Disordered Spin Systems: a Toy Model'*
29. A.C.C. Coolen and D. Sherrington, *J. Phys. A* 27 (1994), 7687-7707  
*'Order Parameter Flow in the SK Spin-Glass I: Replica Symmetry'*
30. S.N. Laughton and A.C.C. Coolen, *J. Phys. A* 27 (1994), 8011-8028  
*'Quasi-periodicity and Bifurcation Phenomena in Ising Spin Neural Networks with Asymmetric Interactions'*
31. S.N. Laughton and A.C.C. Coolen, *Phys. Rev. E* 51 (1995), 2581-2599  
*'Order-Parameter Flow in Symmetric and Nonsymmetric Fully Connected Attractor Neural Networks Near Saturation'*
32. W. Whyte, D. Sherrington and A.C.C. Coolen, *J. Phys. A* 28 (1995), 3421-3437  
*'Competition Between Pattern Recall and Sequence Processing in a Neural Network Storing Correlated Patterns'*
33. S.N. Laughton and A.C.C. Coolen, *J. Stat. Phys.* 80 (1995), 375-387  
*'Macroscopic Lyapunov Functions for Separable Stochastic Neural Networks with Detailed Balance'*
34. S.N. Laughton, A.C.C. Coolen and D. Sherrington, *J. Phys. A* 29 (1996), 763-786  
*'Order-Parameter Flow in the SK Spin-Glass II: Inclusion of Microscopic Memory Effects'*
35. A.C.C. Coolen, S.N. Laughton and D. Sherrington, *Phys. Rev. B* 53 (1996), 8184-8187  
*'Dynamical Replica Theory for Disordered Spin Systems'*
36. A.C.C. Coolen and L. Viana, *J. Phys. A* 29 (1996), 7855-7866  
*'Feed-Forward Chains of Recurrent Attractor Neural Networks Near Saturation'*
37. C.W.H. Mace and A.C.C. Coolen, *Statistics and Computing* 8 (1998), 55-88  
*'Statistical Mechanical Analysis of the Dynamics of Learning in Perceptrons'*
38. H.J.J. Jonker, A.C.C. Coolen and J.J. Denier van der Gon, *Network* 9 (1998), 345-362  
*'Autonomous Development of Decorrelation Filters in Neural Networks with Recurrent Inhibition'*
39. A. Castellanos, A.C.C. Coolen and L. Viana, *J. Phys. A* 31 (1998), 6615-6634  
*'Finite-Size Effects in Separable Recurrent Neural Networks'*
40. A. Düring, A.C.C. Coolen and D. Sherrington, *J. Phys. A* 31 (1998), 8607-8621  
*'Phase Diagram and Storage Capacity of Sequence Processing Neural Networks'*
41. G. Jongen, D. Bollé and A.C.C. Coolen, *J. Phys. A* 31 (1998), L737-L742  
*'The XY Spin-Glass with Slow Dynamic Couplings'*
42. H.C. Rae, P. Sollich and A.C.C. Coolen, *J. Phys. A* 32 (1999), 3321-3339  
*'On-Line Learning with Restricted Training Sets: An Exactly Solvable Case'*
43. N.S. Skantzos and A.C.C. Coolen, *J. Phys. A* 33 (2000), 1841-1855  
*'Random Field Ising Chains with Synchronous Dynamics'*
44. N.S. Skantzos and A.C.C. Coolen, *J. Phys. A* 33 (2000), 5785-5807  
*' $(1 + \infty)$ -Dimensional Attractor Neural Networks'*
45. A.C.C. Coolen and D. Saad, *Phys. Rev. E* 62 (2000), 5444-5487  
*'Dynamics of Learning with Restricted Training Sets'*
46. P. Sollich, N. Nishimori, A.C.C. Coolen and A.J. van der Sijs, *J. Phys. Soc. Jap.* 69 (2000), 3200-3213  
*'Nontrivial Phase Behaviour in the Infinite-Range Quantum Mattis Model'*
47. A.C.C. Coolen, D. Saad and Y.S. Xiong, *Europhys. Lett.* 51 (2000), 691-697  
*'On-line Learning from Restricted Training Sets in Multilayer Neural Networks'*
48. H.C. Rae, J.F. Heibel and A.C.C. Coolen, *J. Phys. A* 33 (2000), 8703-8722  
*'Non-deterministic Learning Dynamics in Large Neural networks due to Structural Data Bias'*
49. N.S. Skantzos and A.C.C. Coolen, *J. Phys. A* 34 (2001), 929-942  
*'Attractor Modulation and Proliferation in  $(1 + \infty)$ -Dimensional Neural Networks'*
50. J. van Mourik and A.C.C. Coolen, *J. Phys. A* 34 (2001), L111-L117  
*'Cluster Derivation of Parisi's RSB Solution for Disordered Spin Systems'*
51. J.A.F. Heibel and A.C.C. Coolen, *Phys. Rev. E* 63 (2001), 056121  
*'Generating Functional Analysis of the Dynamics of the Batch Minority Game with Random External Information'*
52. G. Jongen, J. Anemüller, D. Bollé, A.C.C. Coolen and C Perez-Vicente, *J. Phys. A* 34 (2001), 3957-3984  
*'Coupled Dynamics of Fast Spins and Slow Exchange Interactions in the XY Spin Glass'*
53. N.S. Skantzos, J. van Mourik and A.C.C. Coolen, *J. Phys. A* 34 (2001), 4437-4457  
*'A Solvable Model of Secondary Structure Formation in Random Hetero-Polymers'*

54. J.I. Inoue and A.C.C. Coolen, J. Phys. A34 (2001), L401-L408  
*'Dynamics of On-Line Hebbian Learning with Structurally Unrealizable Restricted Training Sets'*
55. H. Chakravorty, J. van Mourik and A.C.C. Coolen, Eur. Phys. J. E5 (2001), 539-550  
*'Solvable Lattice Gas Models of Random Heteropolymers at Finite Density II: Dynamics and Transitions to Compact States'*
56. J.A.F. Heimerl and A.C.C. Coolen, J. Phys. A34 (2001), 9009-9026  
*'Supervised Learning with Restricted Training Sets: a Generating Functional Analysis'*
57. A.C.C. Coolen and J.A.F. Heimerl, J. Phys. A34 (2001), 10783-10804  
*'Dynamical Solution of the On-Line Minority Game'*
58. A.C.C. Coolen, J.A.F. Heimerl and D. Sherrington, Phys. Rev. E65 (2001), 016126  
*'Dynamics of the Batch Minority Game with Inhomogeneous Decision Noise'*
59. T. Uezu and A.C.C. Coolen, J. Phys. A35 (2002), 2761-2809  
*'Hierarchical Self-Programming in Recurrent Neural Networks'*
60. D. Sherrington, A.C.C. Coolen and J.A.F. Heimerl (2002), Physica A 314, 83-91  
*'Stochastic decision making in the minority game'*
61. H. Chakravorty, A.C.C. Coolen and D. Sherrington, J. Phys. A35 (2002), 8647-8671  
*'Coupled dynamics of sequence selection and compactification in mean-field hetero-polymers'*
62. A.C.C. Coolen and C. Pérez-Vicente, J. Phys. A36 (2003), 4477-4508  
*'Partially and Fully Frustrated Coupled Oscillators with Random Pinning Fields'*
63. A.C.C. Coolen, Markov Processes and Related Fields 9 (2003), 177-194  
*'Non-Equilibrium Statistical Mechanics of Minority Games'*
64. A.C.C. Coolen and V. Del Prete, Rev. Neurosci. 14 (2003), 181-193  
*'Statistical mechanics beyond the Hopfield model: solvable problems in neural network theory'*
65. B. Wemmenhove and A.C.C. Coolen, J. Phys. A36 (2003), 9617-9633  
*'Finite Connectivity Attractor Neural Networks'*
66. T. Galla, A.C.C. Coolen and D. Sherrington, J. Phys. A36 (2003), 11159-11172  
*'Dynamics of a spherical Minority Game'*
67. V. Del Prete and A.C.C. Coolen, Neurocomputing 58-60 (2004), 239-244  
*'Non-Equilibrium Statistical Mechanics of Recurrent Networks with Realistic Neurons'*
68. J.P.L. Hatchett, B. Wemmenhove, I. Pérez-Castillo, T. Nikolettopoulos, N.S. Skantzos and A.C.C. Coolen, J. Phys. A37 (2004), 6201-6220  
*'Parallel Dynamics of Disordered Ising Spin Systems on Finitely Connected Random Graphs'*
69. T. Nikolettopoulos, A.C.C. Coolen, I. Pérez-Castillo, N.S. Skantzos, J.P.L. Hatchett and B. Wemmenhove, J. Phys. A37 (2004), 6455-6475  
*'Replicated Transfer Matrix Analysis of Ising Spin Models on 'Small World' Lattices'*
70. J.P.L. Hatchett and A.C.C. Coolen, J. Phys. A37 (2004), 7199-7212  
*'Asymmetrically Extremely Dilute Neural Networks with Langevin Dynamics and Unconventional Results'*
71. B. Wemmenhove, N.S. Skantzos and A.C.C. Coolen, J. Phys. A37 (2004), 7653-7670  
*'Slowly Evolving Connectivity in Recurrent Neural Networks I: The Extreme Dilution Regime'*
72. T. Nikolettopoulos and A.C.C. Coolen, J. Phys. A37 (2004), 8433-8456  
*'Diagonalization of Replicated Transfer Matrices for Disordered Ising Spin Systems'*
73. I. Pérez-Castillo, B. Wemmenhove, J.P.L. Hatchett, A.C.C. Coolen, N.S. Skantzos and T. Nikolettopoulos, J. Phys. A37 (2004), 8789-8799  
*'Analytic Solution of Attractor Neural Networks on Scale-free Graphs'*
74. A.C.C. Coolen, J. Phys. A38 (2005), 2311-2347  
*'Generating Functional Analysis of Minority Games with Real Market Histories'*
75. A.C.C. Coolen, N.S. Skantzos, I. Pérez Castillo, C.J. Perez Vicente, J.P.L. Hatchett, B. Wemmenhove and T. Nikolettopoulos, J. Phys. A38 (2005), 8289-8317  
*'Finitely Connected Vector Spin Systems with Random Matrix Interactions'*
76. J.P.L. Hatchett, I. Pérez Castillo, A.C.C. Coolen and N.S. Skantzos, Phys. Rev. Lett. 95 (2005), 117204  
*'Dynamical Replica Analysis of Disordered Ising Spin Systems on Finitely Connected Random Graphs'*
77. T. Uezu, C. Kadono, J.P.L. Hatchett and A.C.C. Coolen, Prog. Theor. Phys. 161 (2006), 385-388  
*'A Large Scale Dynamical System Immune Network Model with Finite Connectivity'*
78. N. Shayeghi and A.C.C. Coolen, J. Phys. A39 (2006), 13921-13950  
*'Generating functional analysis of batch minority games with arbitrary strategy numbers'*
79. A. Mozeika and A.C.C. Coolen, J. Phys. A41 (2008), 115003  
*'Dynamical replica analysis of processes on finitely connected random graphs: I. Vertex covering'*

80. C.J. Pérez-Vicente and A.C.C. Coolen, *J. Phys.* A41 (2008), 255003  
*'Spin models on random graphs with controlled topologies beyond degree constraints'*
81. S. Rabello, A.C.C. Coolen, C.J. Pérez-Vicente and F. Fraternali, *J. Phys.* A41 (2008), 285004  
*'A solvable model of the genesis of amino-acid sequences via coupled dynamics of folding and slow genetic variation'*
82. A.C.C. Coolen and N. Shayeghi, *J. Phys.* A41 (2008), 324006  
*'Generating functional analysis of minority games with inner product strategy definitions'*
83. P. Papadopoulos and A.C.C. Coolen, *J. Phys.* A41 (2008), 365002  
*'Market response to external events and interventions in spherical minority games'*
84. G. Bianconi, A.C.C. Coolen and C.J. Perez-Vicente, *Phys. Rev.* E78 (2008), 016114  
*'Entropies of complex networks with hierarchically constrained topologies'*
85. K. Makrogianneli et al, *Mol. Cell Biol.* 29 (2009), 2997-3006  
*'Integrating receptor signal inputs that influence small rho GTPase activation dynamics at the immunological synapse'*
86. A. Mozeika and A.C.C. Coolen, *J. Phys.* A42 (2009), 195006  
*'Dynamical replica analysis of processes on finitely connected random graphs: II. Dynamics in the Griffiths phase of the diluted Ising ferromagnet'*
87. K. Mimura and A.C.C. Coolen, *J. Phys.* A42 (2009), 415001  
*'Parallel dynamics of disordered Ising spin systems on finitely connected random graphs with arbitrary degree distributions'*
88. A.C.C. Coolen, A. De Martino and A. Annibale, *J. Stat. Phys.* 136 (2009), 1035-1067  
*'Constrained Markovian dynamics of random graphs'*
89. A. Annibale, A.C.C. Coolen, L.P. Fernandes, F. Fraternali and J. Kleinjung, *J. Phys. A: Math. Theor.* 42 (2009), 485001  
*'Tailored graph ensembles as proxies or null models for real networks I: tools for quantifying structure'*
90. M. Kelleher et al, *Targ. Oncol.* 10.1007 (2009), s11523-009-0116-y  
*'The potential of optical proteomic technologies to individualize prognosis and guide rational treatment for cancer patients'*
91. P. Papadopoulos and A.C.C. Coolen, *J. Phys. A: Math. Theor.* 43 (2010) 025005  
*'Theory of agent-based market models with controlled levels of greed and anxiety'*
92. A. Annibale, A.C.C. Coolen and G. Bianconi, *J. Phys. A: Math. Theor.* 43 (2010) 395001  
*'Network resilience against intelligent attacks constrained by the degree-dependent node removal cost'*
93. L.P. Fernandes, A. Annibale, J. Kleinjung, A.C.C. Coolen and F. Fraternali, *PLoS ONE* 5 (2010) e12083 *'Protein networks reveal detection bias and species consistency when analysed by information-theoretic methods'*
94. P.R. Barber, S.M. Ameer-Beg, S. Pathmanathan, M. Rowley and A.C.C. Coolen, *Biomedical Optics Express* 1 (2010), 1148-1155  
*'A Bayesian method for single molecule, fluorescence burst analysis'*
95. G.O. Fruhwirth et al, *Chem. Phys. Chem.* 12 (2011), 442-461  
*'How Forster resonance energy transfer imaging improves the understanding of protein interaction networks in cancer biology'*
96. E.S. Roberts, T. Schlitt and A.C.C. Coolen, *J. Phys. A* 44 (2011) 275002  
*'Tailored graph ensembles as proxies or null models for real networks II: results on directed graphs'*

## REVIEW PAPERS, BOOK CHAPTERS & EDITED BOOKS

1. A.C.C. Coolen and D. Sherrington, 'Mathematical Approaches to Neural Networks' (North-Holland 1993; ed. J.G. Taylor), 293-306  
*'Dynamics of Attractor Neural Networks'*
2. D. Sherrington, A.C.C. Coolen and S.N. Laughton, *CNLS Newsletter* (Los Alamos) 124 (1996), 1-12  
*'Macrodynamics of Disordered and Frustrated Systems'*
3. Th.M. Nieuwenhuizen and A.C.C. Coolen, *Nederlands Tijdschrift voor Natuurkunde* 62/7 (1996), 187-190  
*'Breking van Ergodiciteit in Glasachtige Spinsystemen'*
4. A.C.C. Coolen, in 'Concepts for Neural Networks - A Survey' (Springer 1998; eds. L.J. Landau and J.G. Taylor), 13-70  
*'A Beginner's Guide to the Mathematics of Neural Networks'*
5. A.C.C. Coolen, in *Handbook of Biological Physics Vol 4* (Elsevier Science 2001; eds. F. Moss and S. Gielen), 531-596  
*'Statistical mechanics of Recurrent Neural networks I: Statics'*
6. A.C.C. Coolen, in *Handbook of Biological Physics Vol 4* (Elsevier Science 2001; eds. F. Moss and S. Gielen), 597-662  
*'Statistical mechanics of Recurrent Neural networks II: Dynamics'*
7. 'Disordered and Complex Systems' (AIP Conference Proceedings 553, 2001; eds. P. Sollich, A.C.C. Coolen, L.P. Hughston and R.F. Streater)
8. A.C.C. Coolen, in 'Handbook of Brain Theory and Neural Networks - 2nd Edition (2002) MIT Press (MA Arbib, Ed), 377-381  
*'Dynamics of recall and association'*

9. G.O. Fruhwirth, L.P. Fernandes, G. Weitsman, G. Patel, M. Kelleher, K. Lawler, A. Brock, S.P. Poland, Dr. D.R. Matthews, G. Kri, P.R. Barber, B. Vojnovic, S.M. Ameer-Beg, A.C.C. Coolen, F. Fraternali, T. Ng, Chem. Phys. Chem 12 (2011) 442461  
*'How Frster Resonance Energy Transfer Imaging Improves the Understanding of Protein Interaction Networks in Cancer Biology'*

## PUBLICATIONS IN CONFERENCE PROCEEDINGS

1. A.C.C. Coolen, J.J. Denier van der Gon and Th.W. Ruijgrok, 'Neural Networks from Models to Applications' (IDSET Paris 1989; ed. L. Personnaz and G. Dreyfus), 269-278  
*'An Exact Dynamical Solution for Generalised Hopfield Networks'*
2. C.C.A.M. Gielen and A.C.C. Coolen, 'Neural Networks from Models to Applications' (IDSET Paris 1989; ed. L. Personnaz and G. Dreyfus), 269-278  
*'Self-Organisation in Neural Networks Underlying the Coordination of Movements'*
3. H.J.J. Jonker, A.C.C. Coolen and J.J. Denier van der Gon, 'Artificial Neural Networks' (IEE London 1989), 23-26  
*'Linear Interpolation with Binary Neurons'*
4. A.C.C. Coolen, J.J. Denier van der Gon and Th.W. Ruijgrok, 'Artificial Neural Networks' (IEE London 1989), 238-241  
*'Evolution Equations for Neural Networks with Arbitrary Spatial Structure'*
5. A.C.C. Coolen and J.J. Denier van der Gon, 'Intelligent Autonomous Systems II' (IAS Amsterdam 1989; ed. T. Kanade, F. Groen and L. Hertzberger), 89-99  
*'Evolution Equations for Neural Networks with Arbitrary Spatial Structure: The Onset of Order'*
6. J.J. Denier van der Gon, A.C.C. Coolen, C.J. Erkelens and H.J.J. Jonker, 'Multiple Muscle Systems' (Springer New York 1990; ed. J. Winters and S. Woo), 336-342  
*'Self-Organizing Neural Mechanisms Possibly Responsible for Movement Coordination'*
7. A.C.C. Coolen, 'Statistical Mechanics of Neural Networks' (Springer Berlin 1990; ed. L. Garrido), 381-396  
*'Ising Spin Neural Networks with Spatial Structure'*
8. M. Braamhof (presently: Abramoff), A.C.C. Coolen, G. Wieneke and P. Janssen, 'Speech Motor Control and Stuttering' (Elsevier Science Publ. 1991; ed. Peters, Hulstijn and Starkweather), 181-188  
*'Can Neural Networks Explain Dysfluent Speech ?'*
9. W. Wiegierinck and A.C.C. Coolen, 'Artificial Neural Networks 2' (Elsevier Science Publ. 1992; ed. I. Aleksander and J. Taylor), 277-280  
*'The Connections of Large Perceptrons'*
10. A.C.C. Coolen, A.J. Noest and G.B. de Vries, 'Neural Networks: from Biology to High Energy Physics II' (World Scientific 1993; ed. O. Benhar, C. Bosio, P. Del Giudice and M. Grandolfo), 149-161  
*'The Modeling of Chemical Modulation in Neural Networks'*
11. A.C.C. Coolen and D. Sherrington, 'ICANN '93' (Springer-Verlag 1993; ed. S. Gielen and B. Kappen), 722-725  
*'Equilibrium Statistical Mechanics of Non-symmetric Neural Networks'*
12. A.C.C. Coolen, R.W. Penney and D. Sherrington, 'Neural Information Processing Systems 6' (Morgan Kaufmann 1994; ed. J.D. Cowan, G. Tesauro and J. Alspector), 447-454  
*'Coupled Dynamics of Fast Neurons and Slow Interactions'*
13. D. Sherrington and A.C.C. Coolen, '25 Years of Non-Equilibrium Statistical Mechanics', Proc. Sitges XIII, (Springer Lecture Notes in Physics 1995; ed. J. Brey, J. Marro, J. Rubi and M. San Miguel), 161-176  
*'Evolution of Order Parameters in Disordered Spin Systems - a Closure Procedure'*
14. D. Sherrington, R.W. Penney and A.C.C. Coolen. 'Chaos and Complexity', Proc. Blois 1993, (Editions Frontiers 1995; eds. Tran Thanh Van, Berge, Conte and Dubois), 229-232  
*'Complexity in the Coupled Dynamics of Fast Neurons and Slow Synapses'*
15. A.C.C. Coolen, S.N. Laughton and D. Sherrington, 'Neural Information Processing Systems 8' (MIT Press 1996; ed. D.S. Touretzky, M.C. Moser and M.E. Hasselmo), 253-259  
*'Modern Analytic Techniques to Solve the Dynamics of Recurrent Neural Networks'*
16. D. Sherrington, A.C.C. Coolen and S.N. Laughton, 'StatPhys 19', (World Scientific 1996; ed. H. Bailin), 401-409  
*'Macrodynamics of Disordered and Frustrated Systems'*
17. A.C.C. Coolen and L. Viana, 'Biological and Artificial Computation: From Neuroscience to Technology', (Springer 1997; eds. J. Mira, R. Moreno-Díaz and J. Cabestany), 257-264  
*'Competition Between Feed-Forward and Lateral Information Processing in Layered Neural Networks'*
18. A.C.C. Coolen and D. Saad, 'On-Line Learning in Neural Networks', (Cambridge U.P. 1998; ed. D. Saad), 303-343  
*'Dynamics of Supervised Learning with Restricted Training Sets'*
19. G. Jongen, J. Anemüller, D. Bollé and A.C.C. Coolen, 'StatPhys 21', (Springer 1998; eds. A. Gervois, M. Gingold, D. Iagolnitzer), 12-12  
*'Networks of fast Oscillators with Slow Dynamic Couplings'*

20. N.S. Skantzos, C.F. Beckmann and A.C.C. Coolen, ‘Neural Information Processing Systems 11’ (MIT Press 1999; ed. M.S. Kearns, S.A. Solla, D.A. Cohn), 337-343  
*‘Discontinuous Recall Transitions Induced by Competition Between Short- and Long-Range Interactions in Recurrent Networks’*
21. H.C. Rae, P.K. Sollich and A.C.C. Coolen, ‘Neural Information Processing Systems 11’ (MIT Press 1999; ed. M.S. Kearns, S.A. Solla, D.A. Cohn), 316-322  
*‘On-Line Learning with Restricted Training Sets: Exact Solution as a Benchmark for General Theories’*
22. A. Düring, A.C.C. Coolen and D. Sherrington, ‘Neural Information Processing Systems 11’ (MIT Press 1999; ed. M.S. Kearns, S.A. Solla, D.A. Cohn), 211-217  
*‘Phase Diagram and Storage Capacity of Sequence Storing Neural Networks’*
23. A.C.C. Coolen and D. Saad, ‘Neural Information Processing Systems 11’ (MIT Press 1999; ed. M.S. Kearns, S.A. Solla, D.A. Cohn), 197-203  
*‘Dynamics of Supervised Learning with Restricted Training Sets’*
24. L. Viana, A. Castellanos and A.C.C. Coolen, ‘Proc. IWANN ’99 - Lect. Notes. in Comp. Sci. 1606’ (Springer 1999; ed. J. Mira), 393-400  
*‘Finite Size Effects in Neural Networks’*
25. A.C.C. Coolen and C.W.H. Mace, ‘Neural Information Processing Systems 12’ (MIT Press 2000; ed. M.S. S.A. Solla, T.K. Leen and K.R. Müller), 237-243  
*‘Dynamics of Supervised Learning with Restricted Training Sets and Noisy Teachers’*
26. A.C.C. Coolen and J. van Mourik, ‘Disordered and Complex Systems’ (AIP Press 2001; ed. P. Sollich, A.C.C. Coolen, L.P. Hughston and R.F. Streater), 55-60  
*‘Cluster Derivation of the Parisi Scheme for Disordered Systems’*
27. N.S. Skantzos and A.C.C. Coolen, ‘Disordered and Complex Systems’ (AIP Press 2001; ed. P. Sollich, A.C.C. Coolen, L.P. Hughston and R.F. Streater), 101-106  
*‘Random Field Ising Chains and Neural Networks with Synchronous Dynamics’*
28. N.S. Skantzos, J. van Mourik and A.C.C. Coolen, ‘StatPhys 21, IUPAP 21st Int. Conf. Stat. Phys.’ (2001; eds. D. Lopez, M. Narbosa and A. Robledo), 290-291  
*‘A Solvable Model for Secondary Structure Formation in Random Hetero-Polymers’*
29. K. Mimura and A.C.C. Coolen, ‘Proc. of 2009 Intl. Symp. Info. Theory (ISIT)’ (2009), 1829  
*‘Generating Functional Analysis of LDGM Channel Coding with Many Short Loops’*
30. A.C.C. Coolen and S. Rabello, J.Phys. Conf. Series 197 (2009), 012006  
*‘Generating functional analysis of complex formation and dissociation in large protein interaction networks’*

#### PAPERS ACCEPTED FOR PUBLICATION

1. A.C.C. Coolen, F. Fraternali, A. Annibale, L.P. Fernandes, and J. Kleinjung, Handbook of Statistical Systems Biology (in press, 2011)  
*‘Modelling biological networks via tailored random graphs’*