
References

1. Aarts, E., and J. Korst (1989), *Simulated Annealing and Boltzmann Machines*, John Wiley, Chichester, UK.
2. Abu-Mostafa, Y., and J. St. Jacques (1985), "Information Capacity of the Hopfield Model", *IEEE Transactions on Information Theory*, Vol. IT-31, No. 4, pp. 461–464.
3. Abu-Mostafa, Y. (1986), "Neural Networks for Computing"?, in: [Denker 1986], pp. 1–6.
4. Abu-Mostafa, Y. (1989), "The Vapnik-Chervonenkis Dimension: Information Versus Complexity in Learning", *Neural Computation*, Vol. 1, pp. 312–317.
5. Abu-Mostafa, Y. (1990), "Learning from Hints in Neural Networks", *Journal of Complexity*, Vol. 6, pp. 192–198.
6. Abu-Mostafa, Y. (1993), "Hints and the VC Dimension", *Neural Computation*, Vol. 5, No. 2, pp. 278–288.
7. Ackley, D., G. Hinton, and T. Sejnowski (1985), "A Learning Algorithm for Boltzmann Machines", *Cognitive Science*, Vol. 9, pp. 147–169.
8. Ackley, D. (1987a), *A Connectionist Machine for Genetic Hillclimbing*, Kluwer, Boston, MA.
9. Ackley, D. (1987b), "An Empirical Study of Bit Vector Function Optimization", in: [Davis 1987], pp. 170–204.
10. Agmon, S. (1954), "The Relaxation Method for Linear Inequalities", *Canadian Journal of Mathematics*, Vol. 6, No. 3, pp. 382–392.
11. Aho, A., J. Hopcroft, and J. Ullman (1974), *The Design and Analysis of Computer Algorithms*, Addison-Wesley, Reading, MA.
12. Ainsworth, W. (1988), *Speech Recognition by Machine*, Peter Peregrinus, London.
13. Akiyama, Y., A. Yamashita, M. Kajiura, and H. Aiso (1989), "Combinatorial Optimization with Gaussian Machines", in: [IEEE 1989], Vol. I, pp. 533–540.
14. Albert, A. (1972), *Regression and the Moore-Penrose Pseudoinverse*, Academic Press, New York.
15. Albrecht, R. F., C. R. Reeves, and N. C. Steele (eds.) (1993), *Artificial Neural Nets and Genetic Algorithms*, Springer-Verlag, Vienna.
16. Aleksander, I., and H. Morton (1990), *An Introduction to Neural Computing*, Chapman and Hall, London.

17. Aleksander, I. (1991), "Connectionism or Weightless Neurocomputing"?, in: [Kohonen et al. 1991], pp. 991–1000.
18. Aleksander, I., and J. Taylor (eds.) (1992), *Artificial Neural Networks 2*, Elsevier Science Publishers, Amsterdam.
19. Alexandrow, P. (ed.) (1983), *Die Hilbertschen Probleme*, Akademische Verlagsgesellschaft, Leipzig.
20. Almeida, L. B. (1987), "A Learning Rule for Asynchronous Perceptrons with Feedback in a Combinatorial Environment", in: [IEEE 1987], Vol. II, pp. 609–618.
21. Alon, N., and J. Bruck (1991), "Explicit Construction of Depth-2 Majority Circuits for Comparison and Addition", IBM Tech. Report RJ8300, San Jose, CA.
22. Amaldi, E. (1991), "On the Complexity of Training Perceptrons", in: [Kohonen et al. 1991], pp. 55–60.
23. Amari, S. (1977), "Neural Theory of Association and Concept Formation", *Biological Cybernetics*, Vol. 26, pp. 175–185.
24. Amit, D., H. Gutfreund, and H. Sompolinsky (1985), "Storing Infinite Numbers of Patterns in a Spin-Glass Model of Neural Networks", *Physical Review Letters*, Vol. 55, No. 14, pp. 1530–1533.
25. Amit, D. (1989), *Modeling Brain Function: The World of Attractor Neural Networks*, Cambridge University Press, Cambridge, UK.
26. Anderson, J., and E. Rosenfeld (1988), *Neurocomputing: Foundations of Research*, MIT Press, Cambridge, MA.
27. Arbib, M. (1987), *Brains, Machines and Mathematics*, Springer-Verlag, New York.
28. Arbib, M. (ed.) (1995), *The Handbook of Brain Theory and Neural Networks*, MIT Press, Cambridge, MA.
29. Armstrong, M. (1983), *Basic Topology*, Springer-Verlag, Berlin.
30. Arrowsmith, D., and C. Place (1990), *An Introduction to Dynamical Systems*, Cambridge University Press, Cambridge, UK.
31. Asanovic, K., and N. Morgan (1991), "Experimental Determination of Precision Requirements for Back-Propagation Training of Artificial Neural Networks", International Computer Science Institute, Technical Report TR-91-036, Berkeley, CA.
32. Asanovic, K., J. Beck, B. Kingsbury, P. Kohn, N. Morgan, and J. Wawrzynek (1992), "SPERT: A VLIW/SIMD Microprocessor for Artificial Neural Network Computations", International Computer Science Institute, Technical Report, TR-91-072, Berkeley, CA.
33. Asanovic, K., J. Beck, B. Irissou, B. Kingsbury, N. Morgan and J. Wawrzynek (1995), "The T0 Vector Microprocessor", *Hot Chips VII*, Stanford University, August.
34. Ashton, W. (1972), *The Logit Transformation*, Charles Griffin & Co., London.
35. Axelrod, R., and W. Hamilton (1981), "The Evolution of Cooperation", *Science*, Vol. 211, pp. 1390–1396.
36. Axelrod, R. (1987), "The Evolution of Strategies in the Iterated Prisoner's Dilemma", in: [Davis 1987], pp. 32–41.
37. Bäck, T., F. Hoffmeister, and H. P. Schwefel (1991), "A Survey of Evolution Strategies", in: [Belew and Booker 1991], pp. 2–9.

38. Bailey, J., and D. Hammerstrom (1988), "Why VLSI Implementations of Associative VLCNs Require Connection Multiplexing", in: [IEEE 1988], Vol. II, pp. 173–180.
39. Baldi, P., and Y. Chauvin (1994), "Smooth On-Line Learning Algorithms for Hidden Markov Models", *Neural Computation*, Vol. 6, No. 2, pp. 307–318.
40. Baluja, S. (1995), "An Empirical Comparison of Seven Iterative and Evolutionary Function Optimization Heuristics", Technical Report CMU-CS-95-193, Carnegie Mellon University.
41. Bandemer, H., and S. Gottwald (1989), *Einführung in Fuzzy-Methoden*, Akademie-Verlag, Berlin.
42. Barnsley, M. (1988), *Fractals Everywhere*, Academic Press, London.
43. Battiti, R. (1992), "First- and Second-Order Methods for Learning: Between Steepest Descent and Newton's Method", *Neural Computation*, Vol. 4, pp. 141–166.
44. Baum, E., and D. Haussler (1989), "What Size Network Gives Valid Generalization", *Neural Computation*, Vol. 1, pp. 151–160.
45. Baum, E. (1990a), "On Learning a Union of Half Spaces", *Journal of Complexity*, Vol. 6, pp. 67–101.
46. Baum, E. (1990b), "The Perceptron Algorithm is Fast for Nonmalicious Distributions", *Neural Computation*, Vol. 2, pp. 248–260.
47. Baum, L. E. (1972), "An Inequality and Associated Maximization Technique in Statistical Estimation for Probabilistic Functions of Markov Processes", *Inequalities III*, Academic Press, New York, pp. 1–8.
48. Becker, S., and Y. le Cun (1989), "Improving the Convergence of Back-Propagation Learning with Second Order Methods", in: [Touretzky et al. 1989], pp. 29–37.
49. Beerhold, J., M. Jansen, and R. Eckmiller (1990), "Pulse-Processing Neural Net Hardware with Selectable Topology and Adaptive Weights and Delays", in: [IEEE 1990], Vol. II, pp. 569–574.
50. Belew, R., and L. Booker (eds.) (1991), *Proceedings of the Fourth International Conference on Genetic Algorithms*, Morgan Kaufmann, San Mateo, CA.
51. Belew, R., J. McInerney, and N. Schraudolph (1992), "Evolving Networks: Using the Genetic Algorithm with Connectionist Learning", in: [Langton et al. 1992], pp. 511–547.
52. Bennett, C. (1973), "Logical Reversibility of Computation", *IBM Journal of Research and Development*, Vol. 17, No. 6, pp. 525–532.
53. Bergerson, K., and D. Wunsch (1991), "A Commodity Trading Model Based on a Neural Network-Expert System Hybrid", in: [IEEE 1991], Vol. I, pp. 289–293.
54. Bessière, P., A. Chams, A. Guerin, J. Herault, C. Jutten, and J. Lawson (1991), "From Hardware to Software: Designing a Neurostation", in: [Rammacher, Rückert 1991], pp. 311–335.
55. Bezdek, J., and S. Pal. (1992), "Fuzzy Models for Pattern Recognition – Background, Significance and Key Points", in: Bezdek, J. and Pal. S. (eds.), *Fuzzy Models for Pattern Recognition*, IEEE Press, New Jersey, pp. 1–28.
56. Bischof, H., and W. G. Kropatsch (1993), "Neural Networks Versus Image Pyramids", in: [Albrecht et al. 1993], pp. 145–153.
57. Bischof, H. (1994), *Pyramidal Neural Networks*, PhD Thesis, Technical Report IfA-TR-93-2, Technical University of Vienna.

58. Bishop, C. (1992), “Exact Calculation of the Hessian Matrix for the Multilayer Perceptron”, *Neural Computation*, Vol. 4, pp. 494–501.
59. Blashfield, R., M. Aldenderfer, and L. Morey (1982), “Cluster Analysis Software”, in: P. Krishnaiah, and L. Kanal (eds.), *Handbook of Statistics 2*, North-Holland, Amsterdam, pp. 245–266.
60. Block, H. (1962), “The Perceptron: A Model for Brain Functioning”, *Reviews of Modern Physics*, Vol. 34, pp. 123–135. Reprinted in: [Anderson and Rosenfeld 1988].
61. Blum, A., and R. Rivest (1988), “Training a 3-Node Neural Network is NP-Complete”, *Proceedings of the 1988 Annual Workshop on Computational Learning Theory*, pp. 9–18.
62. Bolc, L., and P. Borowik (1992), *Many-Valued Logics I*, Springer-Verlag, Berlin.
63. Boltjanskij, V., and V. Efremovic (1986), *Anschauliche kombinatorische Topologie*, Deutscher Verlag der Wissenschaften, Berlin.
64. Borgwardt, K. H. (1987), *The Simplex Method – A Probability Analysis*, Springer-Verlag, Berlin.
65. Bourlard, H., and N. Morgan (1993), *Connectionist Speech Recognition*. Kluwer, Boston, MA.
66. Bouton, C., M. Cottrell, J. Fort, and G. Pagés (1992), “Self-Organization and Convergence of the Kohonen Algorithm”, in: *Mathematical Foundations of Artificial Neural Networks*, Sion, September 14–19.
67. Boyer, C. (1968), *A History of Mathematics*, Princeton University Press, Princeton.
68. Boynton, R. (1979), *Human Color Vision*, Holt, Rinehart and Winston, New York.
69. Braun, H. (1994), “ENZO-M: A Hybrid Approach for Optimizing Neural Networks by Evolution and Learning”, in: Y. Davidor et al. (eds.) (1994), *Parallel Problem Solving from Nature*, Springer-Verlag, Berlin, pp. 440–451.
70. Brockwell, R., and R. Davis (1991), *Time Series: Theory and Methods*, Springer-Verlag, New York.
71. Bromley, K., S. Y. Kung, and E. Swartzlander (eds.) (1988), *Proceedings of the International Conference on Systolic Arrays*, Computer Society Press, Washington.
72. Brown, A. (1991), *Nerve Cells and Nervous Systems*, Springer-Verlag, Berlin.
73. Brown, T., and S. Chattarji (1995), “Hebbian Synaptic Plasticity”, in: [Arbib 1995], pp. 454–459.
74. Bruck, J. (1990), “On the Convergence Properties of the Hopfield Model”, *Proceedings of the IEEE*, Vol. 78, No. 10, pp. 1579–1585.
75. Bruck, J., and J. Goodman (1990), “On the Power of Neural Networks for Solving Hard Problems”, *Journal of Complexity*, Vol. 6, pp. 129–135.
76. Bryson, A. E., and Y. C. Ho (1969), *Applied Optimal Control*, Blaisdell, Waltham, MA.
77. Buhmann, J. (1995), “Data Clustering and Learning”, in: [Arbib 1995], pp. 278–282.
78. Burnod, Y. (1990), *An Adaptive Neural Network: The Cerebral Cortex*, Prentice-Hall, London.
79. Byrne, J., and W. Berry (eds.) (1989), *Neural Models of Plasticity*, Academic Press, San Diego, CA.

80. Cantoni, V., and M. Ferreti (1994), *Pyramidal Architectures for Computer Vision*, Plenum Press, New York.
81. Carpenter, G., and S. Grossberg (1987), "ART 2: Self-Organization of Stable Category Recognition Codes for Analog Input Patterns", *Applied Optics*, Vol. 26, pp. 4919–4930.
82. Carpenter, G., and S. Grossberg (1990), "ART 3: Hierarchical Search Using Chemical Transmitters in Self-Organizing Pattern Recognition Architectures", *Neural Networks*, Vol. 3, pp. 129–152.
83. Carpenter, G., and S. Grossberg (1991), *Pattern Recognition by Self-Organizing Neural Networks*, MIT Press, Cambridge, MA.
84. Chalmers, D. J. (1990), "The Evolution of Learning: An Experiment in Genetic Connectionism", *Proceedings of the 1990 Connectionist Models Summer School*, Morgan Kaufmann, San Mateo, CA.
85. Charniak, E. (1991), "Bayesian Networks Without Tears", *AI Magazine*, Vol. 12, No. 4, pp. 50–63.
86. Chatfield, C. (1991), *The Analysis of Time Series*, Chapman and Hall, London.
87. Connor, J., and L. Atlas (1991), "Recurrent Neural Networks and Time Series Prediction", in: [IEEE 1991], Vol. I, pp. 301–306.
88. Cook, S. (1971), "The Complexity of Theorem Proving Procedures", *Proceedings of the ACM Symposium on Theory of Computing*, ACM, New York, pp. 151–158.
89. Cooper, L. (1973), "A Possible Organization of Animal Memory and Learning", in: Lundquist, B., and S. Lundquist (eds.), *Proceedings of the Nobel Symposium on Collective Properties of Physical Systems*, New York, Academic Press, pp. 252–264.
90. Cotter, N., and T. Guillemin (1992), "The CMAC and a Theorem of Kolmogorov", *Neural Networks*, Vol. 5, No. 2, pp. 221–228.
91. Cottrell, M., and J. Fort (1986), "A Stochastic Model of Retinotopy: A Self-Organizing Process", *Biological Cybernetics*, Vol. 53, pp. 405–411.
92. Courant, R., K. Friedrichs, and H. Lewy (1928), "Über die partiellen Differenzgleichungen der mathematischen Physik", *Mathematische Annalen*, Vol. 100, pp. 32–74.
93. Courant, R. (1943), "Variational Methods for the Solution of Problems of Equilibrium and Vibrations", *Bulletin of the American Mathematical Society*, Vol. 49, No. 1, pp. 1–23.
94. Cowan, J. (1995), "Fault Tolerance", in: [Arbib 1995], pp. 390–395.
95. Crick, F. (1994), *The Astonishing Hypothesis – The Scientific Search for the Soul*, Charles Scribner's Sons, New York.
96. Croarken, M. (1990), *Early Scientific Computing in Britain*, Clarendon Press, Oxford.
97. Cronin, J. (1987), *Mathematical Aspects of Hodgkin-Huxley Theory*, Cambridge University Press, Cambridge, UK.
98. Crowder, R. (1991), "Predicting the Mackey-Glass Time Series with Cascade Correlation Learning", in: [Touretzky 1991], pp. 117–123.
99. Darius, F., and R. Rojas (1994), "Simulated Molecular Evolution or Computer Generated Artifacts?", *Biophysical Journal*, Vol. 67, pp. 2120–2122.
100. DARPA (1988), *DARPA Neural Network Study*, AFCEA International Press, Fairfax, VA.

101. David, I., R. Ginosar, and M. Yoeli (1992), "An Efficient Implementation of Boolean Functions as Self-Timed Circuits", *IEEE Transactions on Computers*, Vol. 41, No. 1, pp. 2–11.
102. Davis, L. (1987), *Genetic Algorithms and Simulated Annealing*, Morgan Kaufmann, Los Altos, CA.
103. Davis, L. (1991), "Bit-Climbing, Representational Bias, and Test Suite Design", in: [Belew and Booker 1991], pp. 18–23.
104. Dawkins, R. (1989), *The Selfish Gene*, Oxford University Press, Oxford, UK.
105. De Jong, K. (1993), "Genetic Algorithms are NOT Function Optimizers", in: Whitley (ed.), *Foundations of Genetic Algorithms 2*, Morgan Kaufmann, San Mateo, CA, pp. 5–17.
106. Deller, J., J. Proakis, and J. Hansen (1993), *Discrete Time Processing of Speech Signals*, Macmillan, Toronto.
107. Denker, J. (ed.) (1986), *Neural Networks for Computing*, AIP Conference Proceeding Series, No. 151, American Institute of Physics.
108. DeStefano, J. (1990), "Logistic Regression and the Boltzmann Machine", in: [IEEE 1990], Vol. III, pp. 199–204.
109. Deutsch, D. (1985), "Quantum Theory, the Church-Turing Principle and the Universal Quantum Computer", *Proceedings of the Royal Society of London A*, Vol. 400, pp. 97–117.
110. Devroye, L., and T. Wagner (1982), "Nearest Neighbor Methods in Discrimination", in: P. Krishnaiah, and L. Kanal (eds.), *Handbook of Statistics 2*, North-Holland, Amsterdam, pp. 193–197.
111. Dowling, J. (1987), *The Retina: An Approachable Part of the Brain*, Harvard University Press, Cambridge, MA.
112. Doyle, P., and J. Snell (1984), *Random Walks and Electric Networks*, The Mathematical Association of America, Washington.
113. Drago, G. P., and S. Ridella (1992), "Statistically Controlled Activation Weight Initialization (SCAWI)", *IEEE Transactions on Neural Networks*, Vol. 3, No. 4, pp. 627–631.
114. Dreyfus, H., and S. Dreyfus (1988), "Making a Mind Versus Modeling the Brain: Artificial Intelligence Back at a Branchpoint", in: [Graubard 1988], pp. 15–44.
115. Dreyfus, S. (1962), "The Numerical Solution of Variational Problems", *Journal of Mathematical Analysis and Applications*, Vol. 5, No. 1, pp. 30–45.
116. Dreyfus, S. E. (1990), "Artificial Neural Networks, Backpropagation and the Kelley-Bryson Gradient Procedure", *Journal of Guidance, Control and Dynamics*, Vol. 13, No. 5, pp. 926–928.
117. Durbin, R., and D. Willshaw (1987), "An Analogue Approach to the Traveling Salesman Problem Using an Elastic Net Method", *Nature*, Vol. 326, pp. 689–691.
118. Durbin, R., C. Miall, and G. Mitchison (eds.) (1989), *The Computing Neuron*, Addison-Wesley, Wokingham, UK.
119. Eberhart, R., and R. Dobbins (eds.) (1990), *Neural Network PC Tools*, Academic Press, San Diego, CA.
120. Eckmiller, R., and C. von der Malsburg (eds.) (1988), *Neural Computers*, Springer-Verlag, Berlin.
121. Eckmiller, R., G. Hartmann, and G. Hauske (eds.) (1990), *Parallel Processing in Neural Systems and Computers*, North Holland, Amsterdam.

122. Eckmiller, R., N. Goerke, and J. Hakala (1991), “Neural Networks for Internal Representation of Movements in Primates and Robots”, in: [Mammone, Zeevi 1991], pp. 97–112.
123. Eckmiller, R. (1994), “Biology Inspired Pulse-Processing Neural Nets with Adaptive Weights and Delays – Concept Sources from Neuroscience vs. Applications in Industry and Medicine”, in: [Zurada et al. 1994], pp. 276–284.
124. Edelman, G. (1987), *Neural Darwinism: The Theory of Neuronal Group Selection*, Basic Books, New York.
125. Efron, B. (1979), “Bootstrap Methods: Another Look at the Jackknife”, *The Annals of Statistics*, Vol. 7, pp. 1–26.
126. Efron, B., and G. Gong (1983), “A Leisurely Look at the Bootstrap, the Jackknife, and Cross-Validation”, *The American Statistician*, Vol. 37, No. 1, pp. 36–48.
127. Efron, B., and R. Tibshirani (1993), *An Introduction to the Bootstrap*, Chapman & Hall, New York.
128. Eigen, M. (1992), *Stufen zum Leben: Die frühe Evolution im Visier der Molekularbiologie*, Piper, Munich.
129. Evesham, H. (1986), “Origins and Development of Nomography”, *Annals of the History of Computing*, Vol. 8, No. 4, pp. 324–333.
130. Fahlman, S. (1989), “Faster Learning Variations on Back-Propagation: An Empirical Study”, in: [Touretzky et al. 1989], pp. 38–51.
131. Fahlman, S., and C. Lebiere (1990), “The Cascade Correlation Learning Architecture”, Technical Report CMU-CS-90-100, Carnegie Mellon University.
132. Farhat, N., D. Psaltis, A. Prata, and E. Paek (1985), “Optical Implementation of the Hopfield Model”, *Applied Optics*, Vol. 24, pp. 1469–1475.
133. Fausett, L. (1994), *Fundamentals of Neural Networks – Architectures, Algorithms and Applications*, Prentice Hall, Englewood Cliffs, NJ.
134. Feitelson, D. (1988), *Optical Computing: A Survey for Computer Scientists*, MIT Press, Cambridge, MA.
135. Feldman, J., and D. Ballard (1982), “Connectionist Models and Their Properties”, *Cognitive Science*, Vol. 6, No. 3, pp. 205–254.
136. Feldman, J., M. Fanty, N. Goddard, and K. Lyne (1988), “Computing With Structured Connectionist Networks”, *Communications of the ACM*, Vol. 31, No. 2, pp. 170–187.
137. Feldman, J., L. Cooper, C. Koch, R. Lippman, D. Rumelhart, D. Sabbah, and D. Waltz (1990), “Connectionist Systems”, in: J. Traub (ed.), *Annual Review of Computer Science*, Vol. 4, pp. 369–381.
138. Feynman, R. (1963), *The Feynman Lectures on Physics*, Addison-Wesley, Reading, MA.
139. Fogel, L. J., A. J. Owens, and M. J. Walsh (1966), *Artificial Intelligence Through Simulated Evolution*, John Wiley & Sons, New York.
140. Fontanari, J. F., and R. Meir (1991), “Evolving a Learning Algorithm for the Binary Perceptron”, *Network – Computation in Neural Systems*, Vol. 2, No. 4, pp. 353–359.
141. Forrest, S., and M. Mitchell (1993), “What Makes a Problem Hard for a Genetic Algorithm? Some Anomalous Results and their Explanation”, *Machine Learning*, Vol. 13, No. 2–3, pp. 285–319.
142. Forrest, S., and M. Mitchell (1993), “Relative Building-Block Fitness and the Building Block Hypothesis”, in: [Whitley 1993], pp. 109–126.

143. Fredkin, E., and T. Toffoli (1982), "Conservative Logic", *International Journal of Theoretical Physics*, Vol. 21, No. 3–4, pp. 219–253.
144. Fukushima, K. (1975), "Cognitron: A Self-Organizing Multilayered Neural Network Model", *Biological Cybernetics*, Vol. 20, pp. 121–136.
145. Fukushima, K., S. Miyake, and T. Ito (1983), "Neocognitron: A Neural Network Model for a Mechanism of Visual Pattern Recognition", *IEEE Transactions on Systems, Man, and Cybernetics*, Vol. 13, pp. 826–834.
146. Fukushima, K., N. Wake (1991), "Handwritten Alphanumeric Character Recognition by the Neocognitron", *IEEE Transactions on Neural Networks*, Vol. 2, No. 3, pp. 355–365.
147. Fukushima, N., M. Okada, and K. Hiroshige (1994), "Neocognitron with Dual C-Cell Layers", *Neural Networks*, Vol. 7, No. 1, pp. 41–47.
148. Furst, M., J. B. Saxe, and M. Sipser (1981), "Parity, Circuits and the Polynomial-Time Hierarchy", *22nd Annual Symposium on Foundations of Computer Science*, IEEE Society Press, Los Angeles, CA, pp. 260–270.
149. Gaines, B. (1977), "Foundations of Fuzzy Reasoning", in: [Gupta, Saridis, Gaines 1977].
150. Gallant, A., and H. White (1988), "There Exists a Neural Network That Does Not Make Avoidable Mistakes", in: [IEEE 1988], Vol. I, pp. 657–664.
151. Gallant, S. (1988), "Connectionist Expert Systems", *Communications of the ACM*, Vol. 31, No. 2, pp. 152–169.
152. Gallant, S. I. (1990), "Perceptron-Based Learning Algorithms", *IEEE Transactions on Neural Networks*, Vol. 1, No. 2, pp. 179–191.
153. Gallinari, P. (1995), "Training of Modular Neural Net Systems", in: [Arbib 1995], pp. 582–585.
154. Gandy, R. (1988), "The Confluence of Ideas in 1936", in: [Herken 1988], pp. 55–111.
155. Gardner, E. (1987), "Maximum Storage Capacity in Neural Networks", *Europhysics Letters*, Vol. 4, pp. 481–485.
156. Garey, M., and D. Johnson (1979), *Computers and Intractability: A Guide to the Theory of NP-Completeness*, W. H. Freeman, New York.
157. Gass, S. (1969), *Linear Programming*, McGraw-Hill, New York.
158. Geman, S., and D. Geman (1984), "Stochastic Relaxation, Gibbs Distributions, and the Bayesian Restoration of Images", *IEEE Transactions on Pattern Analysis and Machine Intelligence*, Vol. 6, pp. 721–741.
159. Gersho, A., and R. Gray (1992), *Vector Quantization and Signal Compression*, Kluwer, Boston, MA.
160. Gibbons, A., and W. Rytter (1988), *Efficient Parallel Algorithms*, Cambridge University Press, Cambridge, UK.
161. Glickstein, M. (1988), "The Discovery of the Visual Cortex", *Scientific American*, Vol. 259, No. 3, pp. 84–91.
162. Glover, D. (1987), "Solving a Complex Keyboard Configuration Problem Through Generalized Adaptive Search", in: [Davis 1987], pp. 12–31.
163. Goldberg, D. (1989), *Genetic Algorithms in Search, Optimization, and Machine Learning*, Addison-Wesley, Reading, MA.
164. Gorges-Schleuter, M. (1989), "ASPARAGOS: An Asynchronous Parallel Genetic Optimization Strategy", *Proceedings of the Second International Conference on Genetic Algorithms*, pp. 422–427.
165. Graubard, S. (1988), *The Artificial Intelligence Debate*, MIT Press, Cambridge, MA.

166. Grefenstette, J. (1993), “Deception Considered Harmful”, in: [Whitley 1993], pp. 75–92.
167. Griffith, J. (1971), *Mathematical Neurobiology: An Introduction to the Mathematics of the Nervous System*, Academic Press, London.
168. Grossberg, S. (1976), “Adaptive Pattern Classification and Universal Pattern Recoding: I. Parallel Development and Coding of Neural Feature Detectors”, *Biological Cybernetics*, Vol. 23, pp. 121–134.
169. Grossberg, S. (1988), “Nonlinear Neural Networks: Principles, Mechanisms, and Architectures”, *Neural Networks*, Vol. 1, pp. 17–61.
170. Gupta, M., G. Saridis, and B. Gaines (1977), *Fuzzy Automata and Decision Processes*, North-Holland, New York.
171. Gupta, M. (1977), “Fuzzy-ism, the First Decade”, in: [Gupta, Saridis, Gaines 1977].
172. Hall, L., and A. Kandel (1986), *Designing Fuzzy Expert Systems*, Verlag TÜV Rheinland, Cologne.
173. Hameroff, S. R. (1987), *Ultimate Computing – Biomolecular Consciousness and Nanotechnology*, North-Holland, Amsterdam.
174. Hameroff, S. R., J. E. Dayhoff, R. Lahoz-Beltra, A. V. Samsonovich, and S. Rasmussen (1992), “Conformational Automata in the Cytoskeleton”, *Computer*, Vol. 25, No. 11, pp. 30–39.
175. Hammerstrom, D. (1990), “A VLSI Architecture for High-Performance, Low-Cost, On-Chip Learning”, in: [IEEE 1990], Vol. II, pp. 537–544.
176. Hammerstrom, D., and N. Nguyen (1991), “An Implementation of Kohonen’s Self-Organizing Map on the Adaptive Solutions Neurocomputer”, in: [Kohonen et al. 1991], pp. 715–720.
177. Hamming, R. (1987), *Information und Codierung*, VCH, Weinheim.
178. Haken, H. (1988), *Information and Self-Organization*, Springer-Verlag, Berlin.
179. Haken, H. (1991), *Synergetic Computers and Cognition*, Springer-Verlag, Berlin.
180. Hartley, H. O. (1961), “The Modified Gauss-Newton Method for the Fitting of Non-Linear Regression Functions by Least Squares”, *Technometrics*, Vol. 3, pp. 269–280.
181. Hays, W. (1988), *Statistics*, Holt, Rinehart and Winston, Fort Worth, TX.
182. Hebb, D. (1949), *The Organization of Behavior*, John Wiley, New York.
183. Hecht-Nielsen, R. (1987a), “Counterpropagation Networks”, *Applied Optics*, Vol. 26, pp. 4979–4984.
184. Hecht-Nielsen, R. (1987b), “Kolmogorov’s Mapping Neural Network Existence Theorem”, in: [IEEE 1987], Vol. II, pp. 11–14.
185. Hecht-Nielsen, R. (1990), *Neurocomputing*, Addison-Wesley, Reading, MA.
186. Hecht-Nielsen, R. (1992), “The Munificence of High-Dimensionality”, in: [Aleksander, Taylor 1992], pp. 1017–1030.
187. Hennessy, J., and D. Patterson (1990), *Computer Architecture: A Quantitative Approach*, Morgan Kaufmann, San Mateo, CA.
188. Herken, R. (1988), *The Universal Turing Machine: A Half Century Survey*, Kammerer & Unverzagt, Hamburg.
189. Hertz, J., A. Krogh, and R. Palmer (1991), *Introduction to the Theory of Neural Computation*, Addison-Wesley, Redwood City, CA.
190. Hille, B. (1984), *Ionic Channels of Excitable Membranes*, Sinauer Associates Inc., Sunderland, UK.

191. Hinton, G., T. Sejnowski, and D. Ackley (1984), "Boltzmann-Machines: Constrained Satisfaction Networks that Learn", CMU-CS-84-119, Carnegie Mellon University.
192. Hodges, A. (1983), *Alan Turing: The Enigma of Intelligence*, Counterpoint, London.
193. Hoekstra, J. (1991), "(Junction) Charge-Coupled Device Technology for Artificial Neural Networks", in: [Ramacher, Rückert 1991], pp. 19–46.
194. Hoffmann, N. (1991), *Simulation neuronaler Netze*, Vieweg, Braunschweig.
195. Holland, J. (1975), *Adaptation in Natural and Artificial Systems: An Introductory Analysis with Applications to Biology, Control and Artificial Systems*, The University of Michigan Press, Ann Arbor, MI.
196. Holmes, J. (1991), *Sprachsynthese und Spracherkennung*, Oldenbourg, Munich.
197. Holt, J., and T. Baker (1991), "Back Propagation Simulations Using Limited Precision Calculations", in: [IEEE 1991], Vol. II, pp. 121–126.
198. Hopfield, J. (1982), "Neural Networks and Physical Systems with Emergent Collective Computational Abilities", *Proceedings of the National Academy of Sciences*, Vol. 79, pp. 2554–2558.
199. Hopfield, J. (1984), "Neurons with Graded Response Have Collective Computational Properties Like those of Two-State Neurons", *Proceedings of the National Academy of Sciences*, Vol. 81, pp. 3088–3092.
200. Hopfield, J., and D. Tank (1985), "Neural Computations of Decisions in Optimization Problems", *Biological Cybernetics*, Vol. 52, pp. 141–152.
201. Hopfield, J., and D. Tank (1986), "Computing with Neural Circuits", *Science*, Vol. 233, pp. 625–633.
202. Horgan, J. (1994), "Can Science Explain Consciousness?", *Scientific American*, Vol. 271, No. 1, pp. 88–94.
203. Hornik, K., M. Stinchcombe, and H. White (1989), "Multilayer Feedforward Networks are Universal Approximators", *Neural Networks*, Vol. 2, pp. 359–366.
204. Hornik, K. (1991), "Approximation Capabilities of Multilayer Perceptrons", *Neural Networks*, Vol. 4, pp. 251–257.
205. Hubel, D. (1989), *Auge und Gehirn: Neurobiologie des Sehens*, Spektrum der Wissenschaft, Heidelberg.
206. Hush, D., J. Salas, and B. Horne (1991), "Error Surfaces for Multilayer Perceptrons", in: [IEEE 1991], Vol. I, pp. 759–764.
207. Hwang, K., and F. Briggs (1985), *Computer Architecture and Parallel Processing*, McGraw-Hill, New York.
208. Hyman, S., T. Vogl, K. Blackwell, G. Barbour, J. Irvine, and D. Alkon (1991), "Classification of Japanese Kanji Using Principal Component Analysis as a Preprocessor to an Artificial Neural Network", in: [IEEE 1991], Vol. I, pp. 233–238.
209. IEEE (1987), *IEEE International Conference on Neural Networks*, San Diego, CA, June.
210. IEEE (1988), *IEEE International Conference on Neural Networks*, San Diego, CA, July.
211. IEEE (1990), *IEEE International Joint Conference on Neural Networks*, San Diego, CA, June.
212. IEEE (1991), *IEEE International Joint Conference on Neural Networks*, Seattle, WA, July.

213. Irie, B., and S. Miyake (1988), “Capabilities of Three-Layered Perceptrons”, in: [IEEE 1988], Vol. I, pp. 641–648.
214. Ising, E. (1925), “Beitrag zur Theorie des Ferromagnetismus”, *Zeitschrift für Physik*, Vol. 31, No. 253.
215. Iwata, A., Y. Nagasaka, S. Kuroyagani, and N. Suzumura (1991), “Realtime ECG Data Compression Using Dual Three Layered Neural Networks for a Digital Holter Monitor”, *Proceedings of the 1991 International Conference on Artificial Neural Networks*, Finland, pp. 1673–1676.
216. Jabri, M., and B. Flower (1991), “Weight Perturbation: an Optimal Architecture and Learning Technique for Analog VLSI Feedforward and Recurrent Multilayer Networks”, *Neural Computation*, Vol. 3, No. 4, pp. 546–565
217. Jacobs, R. A. (1988), “Increased Rates of Convergence through Learning Rate Adaptation”, *Neural Networks* Vol. 1, pp. 295–307.
218. Jacobs, R., M. Jordan, S. Nowlan, and G. Hinton (1991), “Adaptive Mixtures of Local Experts”, *Neural Computation*, Vol. 3, pp. 79–87.
219. Jagota, A. (1995), “An Exercises Supplement to the Introduction to the Theory of Neural Computation”, University of Memphis, FTP document.
220. Jain, A. (1989), *Fundamentals of Digital Image Processing*, Prentice-Hall, London.
221. Janikow, C., and Z. Michalewicz (1991), “An Experimental Comparison of Binary and Floating Point Representations in Genetic Algorithms”, in: [Belew and Booker 1991], pp. 31–36.
222. Jetschke, G. (1989), *Mathematik der Selbstorganisation*, Vieweg, Braunschweig.
223. Ji, C., and D. Psaltis (1991), “The Capacity of Two Layer Network with Binary Weights”, in: [IEEE 1991], Vol. II, pp. 127–132.
224. Johnson, D. (1987), “More Approaches to the Traveling Salesman Guide”, *Nature*, Vol. 330.
225. Jolliffe, I. (1986), *Principal Component Analysis*, Springer-Verlag, New York.
226. Jones, S., K. Sammut, Ch. Nielsen, and J. Staunstrup (1991), “Toroidal Neural Network: Architecture and Processor Granularity Issues”, in: [Ramacher, Rückert 1991], pp. 229–254.
227. Jordan, M., and R. Jacobs (1994), “Hierarchical Mixtures of Experts and the EM Algorithm”, *Neural Computation*, Vol. 6, pp. 181–214.
228. Judd, J. S. (1988), “On the Complexity of Loading Shallow Neural Networks”, *Journal of Complexity*, Vol. 4, pp. 177–192.
229. Judd, J. S. (1990), *Neural Network Design and the Complexity of Learning*, MIT Press, Cambridge, MA.
230. Judd, J. S. (1992), “Why are Neural Networks so Wide”, in: [Aleksander, Taylor 1992], Vol. 1, pp. 45–52.
231. Kamp, Y., and M. Hasler (1990), *Recursive Neural Networks for Associative Memory*, John Wiley, New York.
232. Kandel, A. (1986), *Fuzzy Mathematical Techniques with Applications*, Addison-Wesley, Reading, MA.
233. Kanerva, P. (1988), *Sparse Distributed Memory*, MIT Press, Cambridge, MA.
234. Kanerva, P. (1992), “Associative-Memory Models of the Cerebellum”, in: [Aleksander, Taylor 1992], pp. 23–34.
235. Karayiannis, N., and A. Venetsanopoulos (1993), *Artificial Neural Networks – Learning Algorithms, Performance Evaluation, and Applications*, Kluwer, Boston, MA.

236. Karmarkar, N. (1984), "A New Polynomial Time Algorithm for Linear Programming", *Combinatorica*, Vol. 4, No. 4, pp. 373–381.
237. Karp, R. (1972), "Reducibility Among Combinatorial Problems", in: R. Miller, and J. Thatcher (eds.), *Complexity of Computer Computations*, Plenum Press, New York, pp. 85–104.
238. Karpinski, M., and T. Werther (1993), "VC Dimension and Uniform Learnability of Sparse Polynomials and Rational Functions", *SIAM Journal on Computing*, Vol. 22, No. 6, pp. 1276–1285.
239. Kaufmann, A. (1977), "Progress in Modeling of Human Reasoning by Fuzzy Logic", in: [Gupta, Saridis, Gaines 1977], pp. 11–17.
240. Kaufmann, A., and M. Gupta (1988), *Fuzzy Mathematical Models in Engineering and Management Science*, North-Holland, Amsterdam.
241. Kelley, H. J. (1960), "Gradient Theory of Optimal Flight Paths", *ARS Journal*, Vol. 30, No. 10, pp. 947–954.
242. Keyes, R. (1982), "Communication in Computation", *International Journal of Theoretical Physics*, Vol. 21, No. 3–4, pp. 263–273.
243. Keynes, R. (1988), "Ionenkanäle in Nervenmembranen", in: [Gehirn und Nervensystem 1988], pp. 14–19.
244. Khachiyan, L. G. (1979), "A Polynomial Algorithm in Linear Programming", translated in: *Soviet Mathematics Doklady*, Vol. 20, pp. 191–194.
245. Kimoto, T., K. Asakawa, M. Yoda, and M. Takeoka (1990), "Stock-Market Prediction System with Modular Neural Networks", in: [IEEE 1990], Vol. I, pp. 1–6.
246. Kirkpatrick, S., C. Gelatt, and M. Vecchi (1983), "Optimization by Simulated Annealing", *Science*, Vol. 220, pp. 671–680.
247. Klee, V., and G. L. Minty (1972), "How Good is the Simplex Algorithm", in: O. Shisha (ed.), *Inequalities III*, Academic Press, New York, pp. 159–179.
248. Klir, G., and T. Folger (1988), *Fuzzy Sets, Uncertainty and Information*, Prentice-Hall, Englewood Cliffs, NJ.
249. Klopf, A. (1989), "Classical Conditioning Phenomena Predicted by a Drive-Reinforcement Model of Neuronal Function", in: [Byrne, Berry 1989], pp. 104–132.
250. Koch, C., J. Marroquin, and A. Yuille (1986), "Analog 'Neuronal' Networks in Early Vision", *Proceedings of the National Academy of Sciences*, Vol. 83, pp. 4263–4267.
251. Koch, C., and I. Segev (eds.) (1989), *Methods in Neuronal Modeling: From Synapses to Networks*, MIT Press, Cambridge, MA.
252. Köhler, M. (1990), *Neurale Netze*, Springer-Verlag, Vienna.
253. Kohonen, T. (1972), "Correlation Matrix Memories", *IEEE Transactions on Computers*, Vol. C-21, pp. 353–359.
254. Kohonen, T. (1982), "Self-Organized Formation of Topologically Correct Feature Maps", *Biological Cybernetics*, Vol. 43, pp. 59–69.
255. Kohonen, T. (1984), *Self-Organization and Associative Memory*, Springer-Verlag, Berlin.
256. Kohonen, T., K. Mäkisara, O. Simula, and J. Kangas (eds.) (1991), *Artificial Neural Networks*, North-Holland, Amsterdam.
257. Kojima, M., N. Megiddo, T. Noma, and A. Yoshise (1991), *A Unified Approach to Interior Point Algorithms for Linear Complementarity Problems*, Springer-Verlag, Berlin.

258. Kosko, B. (1988), "Bidirectional Associative Memories", *IEEE Transactions on Systems, Man, and Cybernetics*, Vol. 18, pp. 49–60.
259. Kosko, B. (1992), *Neural Networks and Fuzzy Systems: A Dynamical Systems Approach to Machine Intelligence*, Prentice-Hall, London.
260. Koza, J., and J. Rice (1991), "Genetic Generation of Both the Weights and Architecture for a Neural Network", in: [IEEE 1991], Vol. II, pp. 397–404.
261. Kramer, A., and A. Sangiovanni-Vincentelli (1989), "Efficient Parallel Learning Algorithms for Neural Networks", in: R. Lippmann, J. Moody, and D. Touretzky (eds.) (1989), *Advances in Neural Information Processing Systems*, Vol. 1, Morgan Kaufmann, pp. 40–48.
262. Kuffler, S., and J. Nicholls (1976), *From Neuron to Brain: A Cellular Approach to the Function of the Nervous System*, Sinauer, Sunderland, UK.
263. Kung, H. T. (1988), "Systolic Communication", in: [Bromley, Kung, Swartzlander 1988], pp. 695–703.
264. Kung, S. Y., and J. N. Hwang (1988), "Parallel Architectures for Artificial Neural Nets", in: [IEEE 1988], Vol. II, pp. 165–172.
265. Lamb, G. (1980), *Elements of Soliton Theory*, John Wiley, New York.
266. Langton, C., C. Taylor, J. Farmer, and S. Rasmussen (eds.) (1992), *Artificial Life II*, Addison-Wesley, Redwood City, CA.
267. Lassen, N., D. Ingvar, and E. Skinhoj (1988), "Hirnfunktion und Hirndurchblutung", in: [Gehirn und Nervensystem 1988], pp. 135–143.
268. Lavington, S. (1982), "The Manchester Mark 1", in: [Sewiorek et al. 1982], pp. 107–109.
269. Le Cun, Y. (1985), "Une Procédure d'Apprentissage pour Réseau à Seuil Asymétrique", in: *Cognitiva 85: A la Frontiere de l'Intelligence Artificielle des Sciences de la Connaissance des Neurosciences*, Paris, pp. 599–604.
270. Legendi, T., and T. Szentivanyi (eds.) (1983), *Leben und Werk von John von Neumann*, Bibliographisches Institut, Mannheim.
271. Lewis, P. M., and C. L. Coates (1967), *Threshold Logic*, John Wiley & Sons, New York, 1967.
272. Lim, M., and Y. Takefuji (1990), "Implementing Fuzzy Rule-Based Systems on Silicon Chips", *IEEE Expert*, Vol. 5, No. 1, pp. 31–45.
273. Lin, C.-T., and C. Lee (1991), "Neural-Network-Based Fuzzy Logic Control and Decision System", *IEEE Transactions on Computers*, Vol. 40, No. 12, pp. 1320–1336.
274. Lin, S., and B. Kernighan (1973), "An Effective Heuristic Algorithm for the Traveling Salesman Problem", *Operations Research*, Vol. 21, pp. 498–516.
275. Lin, W.-M., V. Prasanna, and W. Przytula (1991), "Algorithmic Mapping of Neural Network Models onto Parallel SIMD Machines", *IEEE Transactions on Computers*, Vol. 40, No. 12, pp. 1390–1401.
276. Linsker, R. (1988), "Self-Organization in a Perceptual Network", *Computer*, March, pp. 105–117.
277. Lisboa, P. G., and S. J. Perantonis (1991), "Complete Solution of the Local Minima in the XOR Problem", *Network – Computation in Neural Systems*, Vol. 2, No. 1, pp. 119–124.
278. Liu, S., J. Wu, and C. Li (1990), "Programmable Optical Threshold Logic Implementation with an Optoelectronic Circuit", *Optics Letters*, Vol. 15, No. 12, pp. 691–693.
279. Lorentz, G. (1976), "The 13-th Problem of Hilbert", *Proceedings of Symposia in Pure Mathematics*, Vol. 28, pp. 419–430.

280. Lovell, D. R. (1994), *The Neocognitron as a System for Handwritten Character Recognition: Limitations and Improvements*, PhD Thesis, Department of Electrical and Computer Engineering, University of Queensland.
281. Maas, H. L. van der, P. F. M. J. Verschure, and P. C. M. Molenaar (1990), "A Note on Chaotic Behavior in Simple Neural Networks", *Neural Networks*, Vol. 3, pp. 119–122.
282. MacQueen, J. (1967), "Some Methods for Classification and Analysis of Multivariate Observations", in: *Proceedings of the 5th Berkeley Symposium on Mathematical Statistics and Probability*, University of California Press, Berkeley, CA, pp. 281–297.
283. Mahowald, M., and C. Mead (1991), "The Silicon Retina", *Scientific American*, Vol. 264, No. 5, pp. 40–47.
284. Malsburg, C. von der (1973), "Self-Organization of Orientation Sensitive Cells in the Striate Cortex", *Kybernetik*, Vol. 14, pp. 85–100.
285. Malsburg, C. von der (1986), "Frank Rosenblatt: Principles of Neurodynamics, Perceptrons and the Theory of Brain Mechanisms", in: [Palm, Aertsen 1986].
286. Mamdani, E. (1977), "Applications of Fuzzy Set Theory to Control Systems: A Survey", in: [Gupta, Saridis, Gaines 1977], pp. 77–88.
287. Mammone, R. J., and Y. Zeevi (eds.) (1991), *Neural Networks: Theory and Applications*, Academic Press, Boston, MA.
288. Mammone, R. J. (1994) (ed.), *Artificial Neural Networks for Speech and Vision*, Chapman & Hall, London.
289. Mani, D., and L. Shastri (1994), "Massively Parallel Real-Time Reasoning with Very Large Knowledge Bases – An Interim Report", International Computer Science Institute, Technical Report, TR-94-031, Berkeley, CA.
290. Mansfield, A. (1991), "Comparison of Perceptron Training by Linear Programming and by the Perceptron Convergence Procedure", in: [IEEE 1991], Vol. II, pp. 25–30.
291. Margarita, S. (1991), "Neural Networks, Genetic Algorithms and Stock Trading", [Kohonen et al. 1991], pp. 1763–1766.
292. Marquardt, D. W. (1963), "An Algorithm for the Least-Squares Estimation of Nonlinear Parameters", *Journal of the Society for Industrial and Applied Mathematics*, Vol. 11, No. 2, pp. 431–441.
293. Marr, D. (1982), *Vision – A Computational Investigation into the Human Representation and Processing of Visual Information*, W. H. Freeman, San Francisco, CA.
294. Martini, H. (1990), *Grundlagen der Assoziativen Speicherung*, BI Wissenschaftsverlag, Mannheim.
295. Matthews, G. G. (1991), *Cellular Physiology of Nerve and Muscle*, Blackwell Scientific Publications, Boston, MA.
296. McAulay, A. (1991), *Optical Computer Architectures: The Application of Optical Concepts to Next Generation Computers*, John Wiley, New York.
297. McCorduck, P. (1979), *Machines Who Think: A Personal Inquiry into the History and Prospects of Artificial Intelligence*, W. H. Freeman, New York.
298. McCulloch, W., and W. Pitts (1943), "A Logical Calculus of the Ideas Immanent in Nervous Activity", *Bulletin of Mathematical Biophysics*, Vol. 5, pp. 115–133.

299. McCulloch, W., and W. Pitts (1947), “How We Know Universals: the Perception of Auditory and Visual Forms”, *Bulletin of Mathematical Biophysics*, Vol. 9, pp. 127–147.
300. McCulloch, W. (1960), “The Reliability of Biological Systems”, reprinted in: *Collected Works of Warren S. McCulloch* (1989), Intersystems Publications, Salinas, Vol. 4, pp. 1193–1210.
301. McCulloch, W. (1974), “Recollections of the Many Sources of Cybernetics”, reprinted in: *Collected Works of Warren S. McCulloch* (1989), Intersystems Publications, Salinas, Vol. 1, pp. 21–49.
302. Mead, C., and L. Conway (1980), *Introduction to VLSI Systems*, Addison-Wesley, Reading, MA.
303. Mead, C. (1989), *Analog VLSI and Neural Systems*, Addison-Wesley, Reading, MA.
304. Metropolis, N., A. Rosenbluth, M. Rosenbluth, A. Teller, and E. Teller (1953), “Equation of State Calculations for Fast Computing Machines”, *Journal of Chemical Physics*, Vol. 21, pp. 1087–1092.
305. Michalewicz, Z. (1996), *Genetic Algorithms + Data Structures = Evolution Programs*, 3rd Edition, Springer-Verlag, Berlin.
306. Mikhailov, A. (1990), *Foundations of Synergetics I: Distributed Active Systems*, Springer-Verlag, Berlin.
307. Mikhailov, A., and A. Loskutov (1991), *Foundations of Synergetics II: Complex Patterns*, Springer-Verlag, Berlin.
308. Milner, P. (1993), “The Mind and Donald O. Hebb”, *Scientific American*, Vol. 268, No. 1, pp. 124–129.
309. Minsky, M. (1954), *Neural Nets and the Brain: Model Problem*, Dissertation, Princeton University, Princeton.
310. Minsky, M. (1956), “Some Universal Elements for Finite Automata”, in: [Shannon and McCarthy 1956], pp. 117–128.
311. Minsky, M. (1967), *Computation: Finite and Infinite Machines*, Prentice-Hall, Englewood Cliffs, NJ.
312. Minsky, M., and S. Papert (1969), *Perceptrons: An Introduction to Computational Geometry*, MIT Press, Cambridge, MA.
313. Minsky, M. (1985), *The Society of Mind*, Simon and Schuster, New York.
314. Mitchell, M., S. Forrest, and J. H. Holland (1992), “The Royal Road for Genetic Algorithms: Fitness Landscapes and GA Performance”, in: F. J. Varela, and P. Bourgine (eds.), *Toward a Practice of Autonomous Systems. Proceedings of the First European Conference on Artificial Life*, MIT Press, Cambridge, MA, pp. 245–254.
315. Møller, M. (1993), *Efficient Training of Feed-Forward Neural Networks*, PhD Thesis, Aarhus University, Denmark.
316. Montague, P. R. (1993), “The NO Hypothesis”, in: B. Smith, and G. Adelman (eds.), *Neuroscience Year – Supplement 3 to the Encyclopedia of Neuroscience*, Birkhäuser, Boston, MA, pp. 100–102.
317. Montana, D., and L. Davis (1989), “Training Feedforward Neural Networks Using Genetic Algorithms”, *Proceedings of the Eleventh IJCAI*, Morgan Kaufmann, San Mateo, CA, pp. 762–767.
318. Moody, J., and C. Darken (1989), “Learning with Localized Receptive Fields”, in: [Touretzky et al. 1989], pp. 133–143.

319. Moody, J. (1994), "Prediction Risk and Architecture Selection for Neural Networks", in: V. Cherkassky, J. H. Friedman, and H. Wechsler (eds.), *From Statistics to Neural Networks: Theory and Pattern Recognition Applications*, NATO ASI Series F, Vol. 136, Springer-Verlag, Berlin.
320. Morell, P., and W. Norton (1988), "Myelin", in: [Gehirn und Nervensystem 1988], pp. 64–74.
321. Morgan, N., J. Beck, E. Allman, and J. Beer (1990), "RAP: A Ring Array Processor for Multilayer Perceptron Applications", *Proceedings IEEE International Conference on Acoustics, Speech, & Signal Processing*, Albuquerque, pp. 1005–1008.
322. Müller, B., J. Reinhardt, and T. M. Strickland (1995), *Neural Networks: An Introduction*, 2nd Edition, Springer-Verlag, Berlin.
323. Myers, R. (1990), *Classical and Modern Regression with Applications*, PWS-Kent Publishing Company, Boston, MA.
324. Natarajan, B. (1991), *Machine Learning – A Theoretical Approach*, Morgan Kaufmann, San Mateo, CA.
325. Neher, E., and B. Sakmann (1992), "The Patch Clamp Technique", *Scientific American*, Vol. 266, No. 3, pp. 28–35.
326. Neumann, J. von (1956), "Probabilistic Logic and the Synthesis of Reliable Organisms From Unreliable Components", in: [Shannon and McCarthy 1956], pp. 43–98.
327. Ng, K., and B. Abramson (1990), "Uncertainty Management in Expert Systems", *IEEE Expert*, April, pp. 29–47.
328. Nguyen, D., and B. Widrow (1989), "Improving the Learning Speed of 2-Layer Neural Networks by Choosing Initial Values of Adaptive Weights", *IJCNN*, pp. III–21–26.
329. Nilsson, N. (1965), *Learning Machines*, Morgan Kaufmann, San Mateo, CA, New Edition, 1990.
330. Odom, M., and R. Sharda (1990), "A Neural Network for Bankruptcy Prediction", in: [IEEE 1990], Vol. II, pp. 163–168.
331. Oja, E. (1982), "A Simplified Neuron Model as a Principal Component Analyzer", *Journal of Mathematical Biology*, Vol. 15, pp. 267–273.
332. Oja, E. (1989), "Neural Networks, Principal Components, and Subspaces", *International Journal of Neural Systems*, Vol. 1, pp. 61–68.
333. Palm, G. (1980), "On Associative Memory", *Biological Cybernetics*, Vol. 36, pp. 19–31.
334. Palm, G., and A. Aertsen (eds.) (1986), *Brain Theory*, Springer-Verlag, Berlin.
335. Parberry, I. (1994), *Circuit Complexity and Neural Networks*, MIT Press, Cambridge, MA.
336. Park, S., and K. Miller (1988), "Random Number Generators: Good Ones are Hard to Find", *Communications of the ACM*, Vol. 31, No. 10, pp. 1192–1201.
337. Parker, D. (1985), "Learning Logic", Technical Report TR-47, Center for Computational Research in Economics and Management Science, MIT, Cambridge, MA.
338. Penrose, R. (1989), *The Emperor's New Mind: Concerning Computers, Minds and the Laws of Physics*, Oxford University Press, Oxford.
339. Perrone, M. P., and L. N. Cooper (1994), "When Networks Disagree: Ensemble Methods for Hybrid Neural Networks", in: [Mammone 1994], pp. 126–142.

340. Pfister, M., and R. Rojas (1993), “Speeding-up Backpropagation – A Comparison of Orthogonal Techniques”, *International Joint Conference on Neural Networks*, Nagoya, Japan, pp. 517–523.
341. Pfister, M. (1995), *Hybrid Learning Algorithms for Neural Networks*, PhD Thesis, Free University Berlin.
342. Pineda, F. (1987), “Generalization of Backpropagation to Recurrent Neural Networks”, *Physical Review Letters*, Vol. 18, pp. 2229–2232.
343. Platt, J. C., and A. Barr (1987), “Constrained Differential Optimization”, in: D. Anderson (ed.), *Neural Information Processing Systems 1987*, American Institute of Physics, New York, pp. 612–621.
344. Plaut, D., S. Nowlan, and G. Hinton (1986), “Experiments on Learning by Back Propagation”, Technical Report CMU-CS-86-126, Carnegie Mellon University, Pittsburgh, PA.
345. Plaut, D., and T. Shallice (1994), “Word Reading in Damaged Connectionist Networks: Computational and Neuropsychological Implications”, in: [Mammone 1994], pp. 294–323.
346. Pollard, W. (1986), *Bayesian Statistics for Evaluation Research*, Sage Publications, London.
347. Pomerleau, D., G. Gusciara, D. Touretzky, and H. T. Kung (1988), “Neural Network Simulation at Warp Speed: How We Got 17 Million Connections Per Second”, in: [IEEE 1988], Vol. II, pp. 143–150.
348. Posner, M. (1978), *Chronometric Explorations of Mind*, Lawrence Erlbaum, Hillsdale, NJ.
349. Poston, T., C. Lee, Y. Choie, and Y. Kwon (1991), “Local Minima and Back Propagation”, in: [IEEE 1991], Vol. II, pp. 173–176.
350. Poundstone, W. (1993), *Prisoner’s Dilemma*, Oxford University Press, Oxford.
351. Prechelt, L. (1994), “A Study of Experimental Evaluations of Neural Network Learning Algorithms: Current Research Practice”, Technical Report 19/94, University of Karlsruhe.
352. Psaltis, D., K. Wagner, and D. Brady (1987), “Learning in Optical Neural Computers”, in: [IEEE 1987], Vol. III, pp. 549–555.
353. Rabiner, L., and J. Bing-Hwang (1993), *Fundamentals of Speech Recognition*, Prentice-Hall International, London.
354. Ramacher, U. (1991), “Guidelines to VLSI Design of Neural Nets”, in: [Ramacher, Rückert 1991], pp. 1–17.
355. Ramacher, U., and U. Rückert (1991), *VLSI Design of Neural Networks*, Kluwer, Boston, MA.
356. Ramacher, U., J. Beichter, W. Raab, J. Anlauf, N. Bruels, U. Hachmann, and M. Wesseling (1991), “Design of a 1st Generation Neurocomputer”, in: [Ramacher, Rückert 1991], pp. 271–310.
357. Ramón y Cajal, S. (1990), *New Ideas on the Structure of the Nervous System in Man and Vertebrates*, MIT Press, Cambridge, MA, translation of the French edition of 1894.
358. Rechenberg, I. (1973), *Evolutionsstrategie: Optimierung technischer Systeme nach Prinzipien der biologischen Evolution*, Frommann-Holzboog, Stuttgart.
359. Rehkaemper, G. (1986), *Nervensysteme im Tierreich: Bau, Funktion und Entwicklung*, Quelle & Meyer, Heidelberg.
360. Reichert, H. (1990), *Neurobiologie*, Georg Thieme, Stuttgart.

361. Reingold, E., J. Nievergelt, and N. Deo (1977), *Combinatorial Algorithms: Theory and Practice*, Prentice-Hall, Englewood Cliffs, NJ.
362. Rescher, N. (1969), *Many-Valued Logic*, McGraw-Hill, New York.
363. Revuz, D. (1975), *Markov Chains*, North-Holland, Amsterdam.
364. Reyneri, L., and E. Filippi (1991), "An Analysis on the Performance of Silicon Implementations of Backpropagation Algorithms for Artificial Neural Networks", *IEEE Transactions on Computers*, Vol. 40, No. 12, pp. 1380–1389.
365. Richard, M. D., and R. P. Lippmann (1991), "Neural Network Classifiers Estimate *a posteriori* Probabilities", *Neural Computation*, Vol. 3, No. 4, pp. 461–483.
366. Riedmiller, M., and H. Braun (1993), "A Direct Adaptive Method for Faster Backpropagation Learning: the Rprop Algorithm", in: *IEEE International Conference on Neural Networks*, San Francisco, CA, pp. 586–591.
367. Ritter, H., and K. Schulten (1988), "Convergence Properties of Kohonen's Topology Conserving Maps", *Biological Cybernetics*, Vol. 60, pp. 59.
368. Ritter, H., T. Martinetz, and K. Schulten (1990), *Neuronale Netze: Eine Einführung in die Neuroinformatik selbstorganisierender Netzwerke*, Addison-Wesley, Bonn.
369. Robel, A. (1995), "Using Neural Models for Analyzing Time Series of Nonlinear Dynamical Systems", *Systems Analysis Modelling Simulation*, Vol. 18–19, pp. 289–292.
370. Rojas, R. (1992), Visualisierung von neuronalen Netzen, Technical Report B 91–20, Department of Mathematics, Free University Berlin.
371. Rojas, R. (1993), "Backpropagation in General Networks", *Joint Meeting of the AMS and MAA*, San Antonio, 13–16 January.
372. Rojas, R., and M. Pfister (1993), "Backpropagation Algorithms", Technical Report B 93, Department of Mathematics, Free University Berlin.
373. Rojas, R. (1993), *Theorie der neuronalen Netze*, Springer-Verlag, Berlin.
374. Rojas, R. (1993), "A Graphical Proof of the Backpropagation Learning Algorithm", in: V. Malyskhin (ed.), *Parallel Computing Technologies, PACT 93*, Obninsk, Russia.
375. Rojas, R. (1994), "Who Invented the Computer? – The Debate from the Viewpoint of Computer Architecture", in: Gautschi, W. (ed.), *Mathematics of Computation 1943–1993, Proceedings of Symposia on Applied Mathematics*, AMS, pp. 361–366.
376. Rojas, R. (1994), "Oscillating Iteration Paths in Neural Networks Learning", *Computers & Graphics*, Vol. 18, No. 4, pp. 593–597.
377. Rojas, R. (1996), "A Short Proof of the Posterior Probability Property of Classifier Neural Networks", *Neural Computation*, Vol. 8, pp. 41–43.
378. Rosenblatt, F. (1958), "The Perceptron: a Probabilistic Model for Information Storage and Organization in the Brain", *Psychological Review*, Vol. 65, pp. 386–408. Reprinted in: [Anderson and Rosenfeld 1988].
379. Rosenblatt, F. (1960), Cornell Aeronautical Laboratory Report No. VG–1196-G4, February.
380. Rosser, J. (1984), "Highlights of the History of the Lambda-Calculus", *Annals of the History of Computing*, Vol. 6, No. 4, pp. 337–349.
381. Rubner, J., and K. Schulten (1990), "Development of Feature Detectors by Self-Organization", *Biological Cybernetics*, Vol. 62, pp. 193–199.
382. Rumelhart, D., and J. McClelland (1986), *Parallel Distributed Processing*, MIT Press, Cambridge, MA.

383. Rumelhart, D., G. Hinton, and R. Williams (1986), "Learning Internal Representations by Error Propagation", in: [Rumelhart, McClelland 1986], pp. 318–362.
384. Rumelhart, D., G. Hinton, and J. McClelland (1986), "A General Framework for Parallel Distributed Processing", in: [Rumelhart, McClelland 1986], pp. 45–76.
385. Rumelhart, D., and D. Zipser (1986), "Feature Discovery by Competitive Learning", in: [Rumelhart, McClelland 1986], pp. 151–193.
386. Salomon, R. (1992), *Verbesserung konnektionistischer Lernverfahren, die nach der Gradientenmethode arbeiten*, PhD Thesis, Technical University of Berlin.
387. Sanger, T. (1989), "Optimal Unsupervised Learning in a Single-Layer Linear Feedforward Neural Network", *Neural Networks*, Vol. 2, pp. 459–473.
388. Saskin, J. (1989), *Ecken, Flächen, Kanten: Die Eulersche Charakteristik*, Deutscher Verlag der Wissenschaften, Berlin.
389. Schaffer, J. D., D. Whitley, and L. J. Eshelman (1992), "Combinations of Genetic Algorithms and Neural Networks: A Survey of the State of the Art", *International Workshop on Combinations of Genetic Algorithms and Neural Networks*, IEEE Computer Society Press, Los Alamitos, CA, pp. 1–37.
390. Scheller, F., and F. Schubert (1989), *Biosensoren*, Birkhäuser, Basel.
391. Schiffmann, W., M. Joost, and R. Werner (1993), "Comparison of Optimized Backpropagation Algorithms", in: M. Verleysen (ed.), *European Symposium on Artificial Neural Networks*, Brussels, pp. 97–104.
392. Schöning, U. (1987), *Logik für Informatiker*, BI Wissenschaftsverlag, Mannheim.
393. Schuster, H. (1991), *Nonlinear Dynamics and Neuronal Networks*, Proceedings of the 63rd W. E. Heraeus Seminar, VCH, Weinheim.
394. Schwefel, H. P. (1965), *Kybernetische Evolution als Strategie der experimentellen Forschung in der Strömungstechnik*, Diplomarbeit, TU-Berlin.
395. Seitz, C. (1980), "System Timing", in: [Mead and Conway 1980], pp. 218–262.
396. Sejnowski, T., and C. Rosenberg (1986), "NETtalk: a Parallel Network that Learns to Read Aloud", The John Hopkins University Electrical Engineering and Computer Science Technical Report, JHU/EECS-86/01.
397. Sejnowski, T., and G. Tesauro (1989), "The Hebb Rule for Synaptic Plasticity: Algorithms and Implementations", in: [Byrne, Berry 1989], pp. 94–103.
398. Sewiorek, D., G. Bell, and A. Newell (1982), *Computer Structures: Principles and Examples*, McGraw-Hill, Auckland, NZ.
399. Shannon, C., and J. McCarthy (1956), *Automata Studies*, Princeton University Press, Princeton.
400. Shastri, L., and J. Feldman (1985), "Evidential Reasoning in Semantic Networks: A Formal Theory", *Ninth International Joint Conference on Artificial Intelligence*, August, pp. 465–474.
401. Sheng, C. L. (1969), *Threshold Logic*, Academic Press, London.
402. Sheu, B., B. Lee, and C.-F. Chang (1991), "Hardware Annealing for Fast-Retrieval of Optimal Solutions in Hopfield Neural Networks", in: [IEEE 1991], Vol. II, pp. 327–332.
403. Silva, F., and L. Almeida (1990), "Speeding-Up Backpropagation", in: R. Eckmiller (ed.), *Advanced Neural Computers*, North-Holland, Amsterdam, pp. 151–156.
404. Silva, F., and L. Almeida (1991), "Speeding-up Backpropagation by Data Orthonormalization", in: [Kohonen et al. 1991], pp. 1503–1506.

405. Siu, K.-Y., and J. Bruck (1990), "Neural Computation of Arithmetic Functions", *Proceedings of the IEEE*, Vol. 78, No. 10, pp. 1669–1675.
406. Siu, K.-Y., and J. Bruck (1991), "On the Power of Threshold Circuits with Small Weights", *SIAM Journal of Discrete Mathematics*, Vol. 4, No. 3, pp. 423–435.
407. Siu, K.-Y., J. Bruck, T. Kailath, and T. Hofmeister (1993), "Depth Efficient Neural Networks for Division and Related Problems" *IEEE Transactions on Information Theory*, Vol. 39, No. 3, pp. 946–956.
408. Sontag, E. (1995), "Automata and Neural Networks", in [Arbib 1995], pp. 119–123.
409. Soucek, B., and M. Soucek (1988), *Neural and Massively Parallel Computers*, John Wiley, New York.
410. Speckmann, H., G. Raddatz, and W. Rosenstiel (1994), "Improvements of Learning Results of the Selforganizing Map by Calculating Fractal Dimensions", in: *European Symposium on Artificial Neural Networks 94 – Proceedings*, Brussels, pp. 251–255.
411. Sprecher, D. (1964), "On the Structure of Continuous Functions of Several Variables", *Transactions of the American Mathematical Society*, Vol. 115, pp. 340–355.
412. Stein, D. (1989), *Lectures in the Sciences of Complexity, Proceedings of the 1988 Complex Systems Summer School*, Addison-Wesley, Redwood City, CA.
413. Stein, D. (1989), "Spin Glasses", *Scientific American*, Vol. 261, No. 1, pp. 36–43.
414. Steinbuch, K. (1961), "Die Lernmatrix", *Kybernetik*, Vol. 1, No. 1, pp. 36–45.
415. Steinbuch, K. (1965), *Automat und Mensch: Kybernetische Tatsachen und Hypothesen*, Springer-Verlag, Berlin.
416. Stephens, P., and A. Goldman (1991), "The Structure of Quasicrystals", *Scientific American*, Vol. 264, No. 4, pp. 24–31.
417. Stern, N. (1980), "John von Neumann's Influence on Electronic Digital Computing, 1944–1946", *Annals of the History of Computing*, Vol. 2, No. 4, pp. 349–361.
418. Stevens, C. (1988), "Die Nervenzelle", in: [Gehirn und Nervensystem 1988], pp. 2–13.
419. Stevens, L. (1973), *Explorers of the Brain*, Angus and Robertson, London.
420. Steward, O. (1989), *Principles of Cellular, Molecular, and Developmental Neuroscience*, Springer-Verlag, New York.
421. Stone, G. (1986), "An Analysis of the Delta Rule and the Learning of Statistical Associations", in: [Rumelhart, McClelland 1986], pp. 444–459.
422. Sugeno, M. (ed.) (1985), *Industrial Applications of Fuzzy Control*, North-Holland, Amsterdam.
423. Szu, H., and R. Hartley (1987), "Fast Simulated Annealing", *Physics Letters A*, Vol. 122, pp. 157–162.
424. Tagliarini, G., and E. Page (1989), "Learning in Systematically Designed Networks", in: [IEEE 1989], pp. 497–502.
425. Tesauro, G. (1990), "Neurogammon: A Neural-Network Backgammon Program", in: [IEEE 1990], Vol. III, pp. 33–39.
426. Tesauro, G. (1995), "Temporal Difference Learning and TD-Gammon", *Communications of the ACM*, Vol. 38, No. 3, pp. 58–68.
427. Thompson, R. (1990), *Das Gehirn: Von der Nervenzelle zur Verhaltenssteuerung*, Spektrum der Wissenschaft, Heidelberg.

428. Toffoli, T. (1980), “Reversible Computing”, in: J. de Bakker, and J. van Leeuwen (eds.), *Automata, Languages and Programming*, Lecture Notes in Computer Science, Vol. 85, Springer-Verlag, Berlin.
429. Toffoli, T., and N. Margolus (1989), *Cellular Automata Machines: A New Environment for Modeling*, MIT Press, Cambridge, MA.
430. Tomlinson, M., D. Walker, and M. Sivilotti (1990), “A Digital Neural Network Architecture for VLSI”, in: [IEEE 1990], Vol. II, pp. 545–550.
431. Torkkola, K., J. Kangas, P. Uteela, S. Kashi, M. Kokkonen, M. Kurimo, and T. Kohonen (1991), “Status Report of the Finnish Phonetic Typewriter Project”, in: [Kohonen et al. 1991], pp. 771–776.
432. Touretzky, D., G. Hinton, and T. Sejnowski (eds.) (1989), *Proceedings of the 1988 Connectionist Models Summer School*, Morgan Kaufmann, San Mateo, CA.
433. Touretzky, D., J. Elman, T. Sejnowski, and G. Hinton (eds.) (1991), *Proceedings of the 1990 Connectionist Models Summer School*, Morgan Kaufmann, San Mateo, CA.
434. Tukey, J. W. (1958), “Bias and Confidence in Not Quite Large Samples”, *Annals of Mathematical Statistics*, Vol. 29, p. 614 (abstract).
435. Turing, A. (1937), “On Computable Numbers, with an Application to the Entscheidungsproblem”, *Proceedings of the London Mathematical Society*, Vol. 42, pp. 230–265.
436. Valiant, L. (1984), “A Theory of the Learnable”, *Communications of the ACM*, Vol. 27, pp. 1134–1142.
437. Vapnik, V., and A. Chervonenkis (1971), “On the Uniform Convergence of Relative Frequencies of Events to their Probabilities”, *Theory of Probability and its Applications*, Vol. 16, pp. 264–280.
438. Vlontzos, J., and S. Y. Kung (1991), “Digital Neural Network Architecture and Implementation”, in: [Ramacher, Rückert 1991], pp. 205–228.
439. Walter, J., and H. Ritter (1995), “Local PSOMs and Chebyshev PSOMs Improving the Parametrized Self-Organizing Maps”, in: F. Fogelman-Soulie (ed.), *International Conference on Artificial Neural Networks*, Paris.
440. Wawrzyniek, K., K. Asanovic, and N. Morgan (1993), “The Design of a Neuro-Microprocessor”, *IEEE Transactions on Neural Networks*, Vol. 4, No. 3, pp. 394–399.
441. Weigend, A., and N. Gershenfeld (1994) *Time Series Prediction : Forecasting the Future and Understanding the Past*, Addison-Wesley, Reading, MA.
442. Werbos, P. (1974), *Beyond Regression – New Tools for Prediction and Analysis in the Behavioral Sciences*, PhD Thesis, Harvard University.
443. Werbos, P. (1994) *The Roots of Backpropagation – From Ordered Derivatives to Neural Networks and Political Forecasting*, J. Wiley & Sons, New York.
444. Wesseling, P. (1992), *An Introduction to Multigrid Methods*, J. Wiley & Sons, Chichester, UK.
445. Wessels, L., and E. Barnard (1992), “Avoiding False Local Minima by Proper Initialization of Connections”, *IEEE Transactions on Neural Networks*, Vol. 3, No. 6, pp. 899–905.
446. White, H. (1988), “Economic Prediction Using Neural Networks: the Case of IBM Daily Stock Returns”, in: [IEEE 1988], Vol. II, pp. 451–458.
447. White, H. (1992), *Artificial Neural Networks – Approximation and Learning Theory*, Blackwell, Oxford.

448. Whitley, D., S. Dominic, and R. Das (1991), "Genetic Reinforcement Learning with Multilayer Neural Networks", in: [Belew and Booker 1991], pp. 562–570.
449. Whitley, D. (ed.) (1993), *Foundations of Genetic Algorithms 2*, Morgan Kaufmann, San Mateo, CA.
450. Widrow, B., and M. Hoff (1960), "Adaptive Switching Circuits", 1960 WESCON Convention Record, New York, in: [Anderson and Rosenfeld 1989].
451. Widrow, B., and M. Lehr (1990), "30 Years of Adaptive Neural Networks: Perceptron, Madaline and Backpropagation", *Proceedings of the IEEE*, Vol. 78, No. 9, pp. 1415–1442.
452. Wiener, N. (1948), *Cybernetics*, MIT Press, Cambridge, MA.
453. Wilkinson, G. (1990), "Food-Sharing in Vampire Bats", *Scientific American*, Vol. 262, No. 2, pp. 64–71.
454. Williams, R. (1986), "The Logic of Activation Functions", in: [Rumelhart, McClelland 1986], pp. 423–443.
455. Willshaw, D., O. Buneman, and H. Longuet-Higgins (1969), "Non-Holographic Associative Memory", *Nature*, Vol. 222, pp. 960–962.
456. Wilson, G., and G. Pawley (1988), "On the Stability of the Traveling Salesman Problem Algorithm of Hopfield and Tank", *Biological Cybernetics*, Vol. 58, pp. 63–70.
457. Winder, R. (1962), *Threshold Logic*, Doctoral Dissertation, Mathematics Department, Princeton University.
458. Winograd, S., and J. Cowan (1963), *Reliable Computation in the Presence of Noise*, MIT Press, Cambridge, MA.
459. Winston, R. (1991), "Nonimaging Optics", *Scientific American*, Vol. 264, No. 3, pp. 52–57.
460. Wolfram, S. (1991), *Mathematica: A System for Doing Mathematics by Computer*, Addison-Wesley, Redwood City, CA.
461. Wooters, C. (1993), *Lexical Modeling in a Speaker Independent Speech Understanding System*, PhD Thesis, UC Berkeley, TR-93-068, International Computer Science Institute.
462. Wunsch, D., T. Caudell, D. Capps, and A. Falk (1991), "An Optoelectronic Adaptive Resonance Unit", in: [IEEE 1991], Vol. I, pp. 541–549.
463. Yamaguchi, T., and W. G. Kropatsch (1990), "Distortion-Tolerance Curve of the Neocognitron with Various Structures Including Pyramid", *IEEE 10th International Conference on Pattern Recognition*, IEEE Computer Society Press, Washington D. C., pp. 918–922.
464. Yao, A. (1985), "Separating the Polynomial-Time Hierarchy by Oracles", *26th Annual Symposium on Foundations of Computer Science*, IEEE Press, Washington D. C., pp. 1–10.
465. Zadeh, L. (1988), "Fuzzy Logic", *Computer*, Vol. 21, No. 4, April, pp. 83–93.
466. Zak, M. (1989), "Terminal Attractors in Neural Networks", *Neural Networks*, Vol. 2, pp. 259–274.
467. Zaremba, T. (1990), "Case Study III: Technology in Search of a Buck", in: [Eberhart, Dobbins 1990], pp. 251–283.
468. Zhang, S., and A. G. Constantinides (1992), "Lagrange Programming Neural Networks", *IEEE Transactions on Circuits and Systems II: Analog and Digital Signal Processing*, Vol. 39, No. 7, pp. 441–52.
469. Zurada, J. (1992), *Introduction to Artificial Neural Systems*, West Publishing Company, St. Paul, MN.

470. Zurada, J. M., R. Marks II, and C. Robinson (1994) (eds.), *Computational Intelligence – Imitating Life*, IEEE Press, New York.
471. Zurek, W. (1990), *Complexity, Entropy and the Physics of Information*, Santa Fe Institute, Studies in the Sciences of Complexity, Addison-Wesley, Redwood City, CA.
472. – (1990), *Gehirn und Kognition*, Spektrum der Wissenschaft, Heidelberg.
473. – (1988), *Gehirn und Nervensystem*, Spektrum der Wissenschaft, Heidelberg.