

REFERENCES

- Aarts, E.H., F.M.J. de Bont, E. H. A. Haberrs, P.J. M. Laarhoven. (1986), "A Parallel Statistical Cooling Algorithm", *Lecture Note in Computer Science* 210, pp 87
- Aarts E., anf J. Korst, (1989), *Simulated Annealing and Boltzmann Machines: A Stochastic Approach to Combinatorial Optimization and Neural Computing*, New York: Wiley
- Abe S. (1989) "Theories of the Hopfield Neural Networks", *Proc. International Joint Conference on Neural Networks (IJCNN'89)*, Washington D.C., Vol. I, pp 557-564, June
- Abe S. (1991) "Determining Weights of the Hopfield Neural Networks", *Proc. International Conference on Artificial Neural Networks (ICANN'91)* Helsinki, pp 1507-1510, June
- Abe S. "Global Convergence and Supression of Spurious States of the Hopfield Neural Networks ", *Trans. IEEE Circuits & Systems*,
- Abraham, R.H., and C.D. Shaw, (1992), *Dynamics of the Geometry of Behavior*, Reading, MA, Addison-Wesley.
- Aiyer, S.V.B., M. Niranjan, F. Fallside, (1990), "On the Optimization Properties of the Hopfield Model", *Proc. International Conference on Neural Networks (ICNN'90)*, pp 245-249
- Aiyer S.V.B., N. Niranjan and F. Fallside, (1990), "A Theoretical Investigation into the Performance of the Hopfield Model.", *IEEE Transactions on Neural Networks* 15, 15, 204-215
- Akiyema et al, (1991) "The Gaussian Machine: A stochastic Neural Network for Solving Assignment Problems", *Journal of Neural Network Computing*, Winter, pp 43-51
- Allwright, J.R.A. and D.B. Carpenter, (1989), "A Distributed Implementation of Simulated Annealing for the Traveling Salesman Problem", *Parallel Computing* 10, pp 335, North Holland,

- Almeida L.B. (1987), "A Learning Rule for Asynchronous Perceptrons with Feedback in a Combinatorial Environment." *1st IEEE International Conference on Neural Networks*, Vol2., pp. 609-618, San Diego, CA
- Almeida L.B. (1988), "Backpropagation in Perceptrons with Feedback", in *Neural Computers* (R. Eckmiller and C. Von der Malsburg eds.) NATO ASI Series , pp. 199-208. Newyork: Springer Verlag
- Amari, S. (1972 a) "Learning Patterns and Pattern Sequences by Self-organizing Nets of Threshold Elements", *IEEE Trans. Computers*, C-21 (11), 1197-1206, November 1972
- Amari, S., (1972 b), "Characteristics of Random Nets of Analog Neuron-like Elements", *IEEE Trans. on Systems, Man and Cybernetics* SMC-2, 643-657
- Amit, D. (1989) *Modelling Brain Function*, Cambridge: Cambridge University Press.
- Amit, D. H. Gutfreund, and H. Sompolinsky (1985a), "Spin-Glass Models of Neural Networks", *Physical Review Letters* A 32, 1007-1018
- Amit, D. H. Gutfreund, and H. Sompolinsky (1985b), "Storing Infinite Numbers of Patterns in a Spin-Glass Models of Neural Networks", *Physical Review Letters* 55, 1530-1533.
- Anderson and Rosenfeld, (1988), editors, *Neurocomputing: Foundations of Research*, MIT Press, Cambridge, MA,
- Baddaley, A., (1983), *Your Memory*, Pelican Book, U.K
- Bilbro G.L. and W.E Snyder (1988), "Range Image Restoration using Mean Field Annealing", *IEEE Conf. on Neural Information Processing Systems*, Denver, Nov.
- Bressloff P.C. and D. J. Weir, (1991), "Neural Networks", *GEC Journal of Research*, Vol. 8., No 3, pp151-169
- Broomhead D.S. and Lowe, D. (1988), "Multivariable Functional Interpolation and Adaptive Networks", *Complex sYSTEMS* 2, 321-355.
- Bruck J. W. Goodman, (1988) "A generalized Convergence Theorem for Neural Networks and Its Applications in Combinatorial Optimization", *IEEE Trans. on Information Theory* 34, 1089
- Bruck J. W. Goodman, (1990) "On the power of neural Networks for Solving Hard problems", *Journal of Complexity*, Vol. 6, pp 129-135.
- Bullock, T. H., R. Orkand and A. Grinnell: (1977), *Introduction to Nervous System*, Freeman, San Fransisco

- Cavendish M. (1984), *The Illustrated Encyclopedia of Human Body*, published by Marshall Cavendish,
- Cohen M.A., S. Grossberg, (1983), "Absolute Stability of Global Pattern Formation and Parallel Memory Storage by Competitive Neural Networks", *IEEE Transactions on Systems Man and Cybernetics* SMC 13, 815-826
- Fischer M.A. and O. Firchein, (1987), *Intelligence: The Eye, the Brain and the Computer*, Addison-Wesley, 1987.
- Fourneau, J.M., Gelenbe, E. "Random Neural Networks with Multiple Classes of Signals", submitted for publication in *Neural Computation*.
- Freeman, J.A., Skapura D. M., (1991), *Neural Networks: Algorithms, Applications and Programming Techniques*, Addison Wesley,
- Garcia, C.D., Zangwill, W.I. (1981). *Pathways to Solutions, Fixed Points, and Equilibria*, Prentice Hall, Englewood Cliffs, N.J.
- Garey, M.R. and D.S. Johnson (1979) *Computers and Intractability: A Guide to the Theory of NP-completeness*, New York: Freeman
- Gelenbe, E., (1989), *Random Neural Networks with Negative and Positive Signals and Product Form Solution*, *Neural Computation*, Vol. 1, pp. 502-510, 1989.
- Gelenbe, E., (1990) *Stability of the Random Neural Network Model*, *Neural Computation*, Vol. 2, pp. 239-247
- Gelenbe, E., (1990), *Theory of the Random Neural Network Model*, Technical Report, EHEI, France
- Gelenbe E., V. Koubi, F. Pekergin, (1994) "Dynamical Random Neural Network Approach to the Traveling Salesman Problem", *Elektrik*, vol 2. No.1
- Gelenbe, E., Koubi, V., Mokhtari, M. "Random Networks for Associative Memory and Combinatorial Optimization",
- Gelenbe E., A. Stafylopatis, A. Likas, "Associative Memory Operation of the Random Network Model"
- Ghanwani A., (1994), "A Qualitative Comparison of Neural Network Models Applied to the Vertex Covering Problem", *Elektrik*, Vol2, No1, April
- Glauber, R.J., 1963, "Time Dependent Statistics of the Ising Model" *Journal of Mathematical Physics* 4, 294-307
- Golub, G. H., and C. F. Van Loan, (1989), *Matrix Computations*, Baltimore, MD: John Hopkins University Press

- Grossberg, S., (1972), "Pattern Learning by Functional-differential Neural Networks with Arbitrary Path Weights" in Schmitt, K. [Ed.], *Delay and Functional Differential Equations and Their Applications*, 121-160, Academic Press, New York, 1972, reprinted in Grossberg S., *Studies of Mind and Brain*, Reidel Press, Boston, 1982
- Haykin S. , (1991), *Adaptive Filter Theory*, Englewood Cliffs, NJ: Prentice Hall
- Haykin S., (1994) *Neural Networks: A Comprehensive Foundation*, Mc Millan.
- Hecht-Nielsen, R. (1988), 'Neurocomputing: Picking the Human Brain', *IEEE Spectrum*, 25,3, March 1988, 36-41
- Hertz J., A. Krogh and R. G. Palmer, (1991), *Introduction to the Theory of Neural Computation*, Addison Wesley
- Herault L, Niez J.J. (Nov. 1989), "How Neural Networks can Solve Hard Combinatorial Optimization Problems: a Performance Study on the Graph K-partitioning", *Int. Workshop Neural Networks and Their Applications*, Nimes, France
- Herault L., Niez J.J. (??) ,"Neural Networks and Combinatorial Optimization: A study of NP-Complete Graph Problems,
- Hinton, G.E. and T.J. Sejnowsky, (1983). "Optimal Perceptual Inference", *Proc. of the IEEE Conference on Computer Vision and Pattern Recognition*, Washigton 1983, pp 448-453.
- Hinton, G.E. and T.J. Sejnowsky, (1986) "Learning and Relearning in Boltzmann Machines", in *Parallel Distributed Processing*, (Eds: Rumelhart, McClelland) Vol. 1. Chap 7.
- Hopfield J. (1982), "Neural Networks and Physical systems with emergent collective Computational abilities", *Proc. of the National Academy of Sciences*, USA, Vol. 79, pp 2554-2558 .
- Hopfield J., (1984), "Neurons with Graded Responses have Collective Computational Properties like those of Two-State Neurons", *Proc. of the National Academy of Sciences*, USA, Vol. 81, pp 3088-3092,
- Hopfield J. and Tank D., (1985), 'Neural Computation of Decisions in Optimization Problems", *Biological Cybernetics*, Vol. 52, pp 141-152
- Kandel, E.C., J.H. Schwartz,(1985), *Principles of Neural Science*, Elsevier, Amsterdam
- Kirkpatrick, S., C.D. Gelatt Jr. and M. P. Vecchi (1983) "Optimization by Simulated Annealing" *Science* 220, 671-680. Reprinted in Anderson and Rosenberg ,1988
- Kohonen, T. (1972), "Correlation Matrix Memories", *IEEE Transactions on Computers*, C-21, 353-359

- Kohonen, T. E. Reuhkala, K. Makisara, and L. Vainio, (1976)., "Associative Recall of Images", *Biological Cybernetics* 22, 159-168
- Kung S.Y., (1993), *Digital Neural Networks*, Prentice Hall, 1993
- Kosko B. (1988), "Bidirectional Associative Memories", *IEEE Trans. Systems, Man and Cybernetics*, 18 (1), 49-60
- Laarhoven P.J.M. van, E.H.L. Aarts, (1987), *Simulated Annealing: Theory and Applications*, D. Reidel Publishing Company 1987
- Lippmann,(1987) "An introduction to Computing with Neural Nets", *IEEE ASSP Magazine*, April, pp 4-22
- LeCun, Y., 1985, "Une Procedure d'Apprentissage pour Reseau a Seuil Assymetrique.", *Cognitiva*, 85, 599-604, 1985
- Little, W. A, (1974) "The existence of persistent states in the brain", *Math. Biosci*, 19, 101-120, 1974
- Llinas R.R.(editor), (1989a), *The Biology of the Brain: from Neurons to Networks*, Readings from Scientific American, W.H. Freeman, 1989.
- Mashland R.H.?? "The Functional Architecture of Retina", *Scientific American*
- McCulloch, W.S. and W. Pitts, (1943), "A Logical Calculus of Ideas Immanent in Nervous Activity", *Bulletin of Mathematical Biophysics* 5, 115-133, 1943, Reprinted in Anderson and Rosenberg , 1988
- Metropolis, N., A.W. Rosenbluth, M.N. Rosenbluth, A.H. Teller, and E.Teller (1953), "Equation of State Calculations for Fast Computing Machines", *Journal of Chemical Physics* 21, 1087-1092
- Mishkin, M. and T. Appenzeller (??) 'The Anatomy of Memory', *Scientific American*,
- Moody J.E. and Darken J.E (1989) "Fast Learning in Networks of Locally-tuned Processing Units", *Neural Computation* 1, 281-294
- Müller B. and J. Reinhardt, (1990), *Neural Networks: An Introduction*, Springer-Verlag.
- Nauta W.J.H.and M. Feirtag, (??) 'The Organization of the Brain', *Scientific American*,
- Noakes P., (??) *Introduction to Biological Neural Systems*, Technical Report, Dept. of Electronic Systems Eng., University of Essex, Colchester, Essex, CO4 3SQ.
- Papadimitriou, C. H. and K. Steiglitz, (1982), *Combinatorial Optimization: Algorithms and Complexity*, Englewood Cliffs: Prentice Hall

- Peretto P., (1984), "Collective Properties of Neural Networks: A Statistical Physics Approach" *Biological Cybernetics* 50, 51-62
- Pineda , F. J. (1987 a), "Generalization of Backpropagation to Recurrent Neural Networks", *Physical Review Letters*, 18, 2229-2232
- Pineda, F.J., (1987 b), "Generalization of Backpropagation to Recurrent and Higher Order Networks", *Proc. of Neural Information Processing Systems*, Denver, Colorado, Nov. 8.12, ed. D.Z. Anderson, 602-611
- Pineda F. J. (1988), "Dynamics and Architecture for Neural Computation", *Journal of Complexity*, 4, 216-245
- Parker D. B, (1985) "Learning-logic: Casting the Cortex of the Human Brain in Silicon", *Technical Report TR-47*, Center for Computational Research in Economics and Management Science, MIT, Cambridge, MA
- Ramanujam, J. and P. Sadayappan (1988) "Optimization by Neural Networks", *Proc of IEEE International Conference on Neural Networks*, San Diego, Vol. II, 325-332.
- Rosenblatt F., (1958), "The Perceptron: A probabilistic Model for Information Storage and Organization in the Brain", *Psychological Review*, 65:386-408, 1958.
- Rosenblatt (1959) *Principles of Neurodynamics*, Newyork, Spartan Books, 1959
- Rumelhart, D.E., McClelland, J.L. and the PDP Research Group (1986), *Parallel Distributed Processing* Vols. 1 and 2, Bradford Books and MIT Press, Cambridge, Mass
- Rumelhart, D.E., G. E. Hinton, and R. J. Williams, (1986), "Learning Internal Representations by Error Propagation.", in *Parallel Distributed Processing: Explorations in the Microstructure of Cognition* (Rumelhart D.E., and J. L. McClelland, eds.), Vol.1, Chapter 8, Cambridge, MA: MIT Press
- Sejnowski, J.T., (1981),"Skeleton Fields in the Brain", in Hinton, G.E., Anderson, J.A. Ed. *Parallel Models of Associative Memory*, Lawrence Elbaum Associates Publishers, Hillsdale, N.J.,
- Sungur M., (1992), *A Comparison of the Performances of Neural Optimizers through a Design for Playing Tic-Tac- Toe*, M. Sc Thesis, Dept. of EE Eng., Middle East Technical University, Ankara, Turkey
- Van den Bout D.E. and Miller T.K. (1989) "Graph Partitioning using Annealed Neural Networks", *Proc. of IJCNN*, Washington,
- Vester F., (1978) *Derken, Lernen, Vergessen*, Turkish edition, translated by Aydin Aritan, Aritan Press, 1991

Werbos, P. J.,(1974), *Beyond Regression: New tools for Prediction and Analysis in the Behavioral Sciences*, Ph.D. Thesis, Harvard University, Cambridge, MA.

Wilf H.S. (1986) *Algorithms and Complexity*, Prentice Hall,

Widrow and Hoff, (1960) , *Adaptive switching circuits*, IRE WESCON Convention Record, New-York, pp 96-104, IRE, 1960, reprinted in (Anderson and Rosenfeld 88)

Widrow B. and Stearns, S.D. , (1985) *Adaptive Signal Processing*, Signal Processing Series, Prentice Hall, Englewood Cliffs, NJ

Wylie C.R. and L. C. Barrett, (1985) *Advanced Engineering Mathematics*, McGraw-Hill,

Yao, X. (1992) "Finding Approximate Solutions to NP-Hard Problems by Neural Networks is Hard," *Information Processing Letters*, Vol. 41, pp. 93-98.