8. References

Abbott L. F. and Kepler T. B. 1990. “Model neurons: from Hodgkin-Huxley to Hopfield.” *Statistical Mechanics of Neural Networks*, Springer. Pp. 5-18.

Bauer H. U. and Villmann Th. 1995 “Growing a hypercubical output space in a self-organising feature map.” *Technical Report 95-030.* International Computer Science Institute, Berkeley.

Branke J. 1995. “Evolutionary Algorithms for Neural Network Design and Training” *Proc. 1st Nordic Workshop on Genetic Algorithms and its Applications.* Vaasa, Finland.

Broomhead D. S., Lowe D. 1988. “Mulit-Variable functional interpolation and adaptive networks. *Complex Systems*, Vol. 2, pp 321-355.

Bruske J. and Sommer G. 1995. “Dynamic Cell Structure learns perfectly topology preserving map” *Neural Computation,* Vol. 7 No. 4 pp. 845-865.

Chappelier J. C. and Grumbach A. 1994 “Time in neural networks” *SIGART Bulletin.*

Chappelier J. C. and Grumbach A. 1996 “A Kohonen Map for Temporal Sequences” *Conf. Neural Networks and their Applications*.

Chappell G. J. and Taylor J. G. 1993 “The Temporal Kohonen Map”, *Neural Networks.* No. 6, pp. 441-445.

Cheng G. Zell A. 2000 “Double Growing Neural Gas for Disease Diagnosis” *Proc. Artificial Neural Networks in Medicine and Biology Conference.* Vol. 5. pp. 309-314.

Cobb H. G. 1990 “An Investigation into the Use of Hypermutation as an Adaptive Operator in Genetic Algorithms Having Continuous, Time-Dependent Nonstationary Environments”. *NRL Memorandum Report 6760.*

Cobb H. G. and Grefenstette J. J. 1993. “Genetic Algorithms for tracking changing environments” *Proc. 5th International Conference on Genetic Algorithms*. pp. 523-530.

Dittenbach M. Merkl D and Rauber A. 2000. “The Growing Hierarchical Self Organising Map” *International Joint Conference on Neural Networks*. Como, Italy. Vol 6. pp 15-19.

Dodd N. 1990 “Optimisation of network structure using genetic techniques” *Proc. IJCNN*. pp. 965-970.

Dorffner G. 1996 “Neural networks for time series processing”, *Neural Network World*, Vol. 6 No. 4. pp. 447-468.

Elman J. L. 1990. “Finding Structure in Time”, *Cognitive Science*. No. 14. pp. 179-211.

Falhman S. E. 1988. “Faster-Learning Variations on Back Propagation: An Empirical Study” in *Proc. Of the 1988 Connectionist Summer School.* Morgan Kaufman.

Fahlman S. E. and Lebiere C. 1990. “The Cascade Correlation Learning Architecture” *Advances in Neural Information Processing Systems.* Vol 2. pp. 524-532.

Fahlman S. E. 1991. “The recurrent cascade-correlation architecture”, *Advances in Neural Information Processing Systems 3.* Morgan Kaufman Pub. Pp. 190-196.

Finnoff W., Hergert F. and Zimmermann H. G. 1993. “Improving model selection by non-convergent methods” *Neural Networks.* Vol 6. pp. 771-783.

Forrest S. Perelson A. S. 1991. “Genetic Algorithms and the Immune System” *Parallel Problem Solving From Nature, Lecture notes in computer science.* Springer-Verlag. Pp. 320-325.

Franzini M. A. 1987. “Speech recognition with Back-Propagation” *Proc. 9th Annual Conference of IEEE Engineering in Medicine and Biology Society.*

Frasconi P., Gori M., Soda G. “Local feedback multilayered neural networks.” *Neural Computation.* Vol 4, pp. 120-130.

Fritzke B. 1994. “Growing cell structures – a self-organising network for unsupervised and supervised learning” *Neural Networks.* Vol. 7. No. 9. pp. 1441-1460.

Fritzke B. 1995a. “Growing grid – a self-organising network with constant neighbourhood range and adaptation strength” *Neural Processing Letters*. Vol 2. No. 5 pp. 9-13.

Fritzke B. 1995b. “A Growing Neural Gas Network Learns Topologies” *Advances in Neural Information Processing Systems 7.*

Fritzke B. 1996. “Growing Self-Organising Networks – Why?” *European Symposium on Artificial Neural Networks (ESANN)*. pp. 61-72.

Fritzke B. 1997. “A self-organising network that can follow non-stationary distributions” *International Conference on Neural Networks.* pp. 613-618.

Funahashi K. 1989. "On the Approximate Realization of Continuous Mappings by Neural Networks," *Neural Networks*, Vol. 2, pp. 183-192.

Giles C. L., Chen D., Sun G. Z., Chen H. H., Lee Y. C., Goudreau M. W. 1995. “Constructive Learning of Recurrent Neural Networls: Limitations of Recurrent

Cascade Correlation and a simple solution" *IEEE Transactions on Neural Networks.* Vol 6. no.4. p. 829.

Gerstner W. 1995. "Time structure of the activity in neural network models." *Physical Review* Edition 51. pp. 738-758.

Goldberg D. E. and Smith R. E. 1987. "Nonstationary function optimisation using genetic dominance and diploidy" *Genetic Algorithms and their applications: Proc. 2nd International Conference on Genetic Algorithms.* Lawrence Erlbaum Associates. NJ. pp. 59-68.

Grefenstette J. J. 1992 "Genetic Algorithms for changing environments" *Proc. 2nd International Conference on Parallel Problem Solving from Nature.* pp. 137-144.

Grimett G. R. and Stirzaker D. R. 1994. "Probability and Random Processes" 2nd Ed. Clarendon Press: Oxford.

Hanson S. J. and Pratt L. Y. 1989 "Comparing biases for minimal network construction with back-propagation" *Advances in Neural Information Processing Systems 1.*IEEE. Morgan Kaufmann. pp. 177-185.

Harp S. A., Samad T., Guha A. 1989 "Towards the genetic sythesis of neural networks" *Proc. 3rd Int. Conf. On Genetic Algorithms.* pp. 360-369.

Hassibi B. and Stork D. G. 1993. "Second-order derivatives for network pruning: Optimal Brain Surgeon" *Advances in Neural Information Processing Systems 5.* Morgan Kaufmann Pub. pp. 164-171.

Haykin S. 1999. *Neural Networks, a Comprehensive Foundation.* 2nd ed. Prentice Hall.

Hecht-Nielsen R. 1987 "Kolmogrov's mapping neural network existence theorum" *First IEEE International Conference on Neural Networks*, vol. 3, pp. 11-14, San Diego, CA.

Heistermann J. 1994 “Different Learning algorithms for neural networks – a comparative study.” *Parallel Problem Solving, Workshop Proceedings.* Springer Verlag. pp. 368-396.

Holland J. H. 1975 “Adaptation in natural and artificial systems” *The University of Michigan Press.*

Hornik K., Stinchcombe M., and White H. 1989. “Multilayer feedforward networks are universal approximators.” *Neural Networks*. Vol 2. pp. 359-366.

Hopfield J. J., 1982. “Neural networks and physical systems with emergent collective computational abilities” *Proc. Of National Academy of Sciences, USA.* Vo. 81. pp. 3088-3092.

Horn D. and Usher M. 1991. “Parallel activation of memories in oscillatory neural network.” *Neural Computation.* No. 3, vol 1. pp. 31-43.

Hubel D.H. and Weisel T.N, 1962. “Function architecture of macaque visual cortex” *Proceedings of the Royal Society*, B, vol. 198, pp. 1-59, London.

Hutt B. D. “Evolving Artificial Neural Network Controllers for Robots using Species-Based Methods” *PhD Thesis – The University of Reading, Department of Cybernetics.*

Jordan M. I. 1986. “Attractor Dynamics and parallelism in a connectionist sequential machine” *The Eighth Annual Conference of the Cognitive Science Society.* Pp. 531-546.

Kaas J.H., Merzenich M.M. and Killacky. 1983. “The reorganisation of somatosensory cortex following peripheral nerve damage in adult and developing mammals” *Annual Review of Neurosciences*, vol 6, pp. 325-356.

Kangas J. 1990. “Time delayed self organising maps” *Proc. IJCNN’90.* Vol. 2. pp. 331-336.

Karnin E. D. 1990. “A simple procedure for pruning back-propagation trained neural networks” *IEEE Trans. on Neural Networks.* Vol. 1. no. 2. pp. 239-242.

Kavzoglu T. and Vieira C. A. O. 1998. “An analysis of artificial neural network pruning algorithms in relation to Land Cover Classification Accuracy.” *Proc. Remote Sensing Society Student Conference, Oxford.* pp. 53-58.

Kitano H. 1990 “Empirical studies on the speed of convergence of neural network training using genetic algorithms.” *Proc. AAAI.* Pp. 789-795.

Kohonen T. 1982. “Self-organised formation of topologically correct feature maps” *Biological Cybernetics,* vol. 43. pp. 59-69.

Kohonen T. 1990. “The self-organising map” *Proceedings of the Institute of Electrical and Electronic Engineers,* vol. 78, pp. 1464-1480.

Kohonen T. 2001. “Self Organising Maps” *Springer Information Series.*

Klaassen A. J. and Dev, A. 1991 “Learning pulse coded spatio-temporal neurons with a local learning rule.” *Proc. IEEE INNS IJCNN*, vol. 1. pp 829-837.

Knudsen,E.I., duLac, S. and Esterly, S.D., 1987. “Computational maps in the brain” *Annual Review of Neuroscience,* vol 10, pp. 41-65.

Koskela T., Varsta M., Heikkonen J., Kaski K. 1998 “Temporal Processing using Recurrent SOM” *Conf. on Knowledge-Based Intelligent Engineering Systems, Adelaide, Australia,* Vol 1., pp. 290-297.

Lawrence,S. Giles, L. Tsoi A. C., Back A. D. 1997 “Face Recognition: A Convolutional Neural Network Approach”, *Institute of Electrical and Electronic Engineers Transactions on Neural Networks*. Vol 8. No. 1, pp. 98-113.

Lang K. J., Waibel A. H. and Hinton G. E. “A time-delay neural network architecture for isolated word recognition.” *Neural Networks.* No. 3, vol 1. pp. 23-44.

Lange J. M., Voigt H., Wolf D. 1994. “Growing artificial neural networks based on correlation measures, task decomposition and local attention neurons” *IEEE World Congress on Computational Intelligence. Conf. Neural Networks.* Vol. 2. pp. 1355-1358.

Lange J. M., Voigt H., Burkhardt S. and Göbel R. 1997. “The Intelligent Inspection Engine – A Real-time, Real-World Visual Classifier System”, *Technical Report.* GFaI – Centre for Applied Computer Science, Berlin, Germany.

Le Cun Y. Denker J. S. and Solla S. A. 1990. “Optimal Brain Damage” *Advances in Neural Information Processing System 2.* Morgan Kaufmann Pub. pp. 598-605.

Lippmann R. P. 1989 “Pattern classification using Neural Networks” *IEEE Communications Magazine.* Vol. 27 No. 11, pp. 47-64.

Martinetz T. M. 1995. “Competitive Hebbian learning rule forms perfectly topology preserving maps.” *International Conference on Artificial Neural Networks.* pp. 427-434.

Mozer M. C. and Smolensky P. 1989. “Using relevance to reduce network size automatically” *Connection Science.* vol. 1. no. 1. pp. 3-16.

Miller G. F., Todd P. M., Hegde S. U. 1989 “Designing neural networks using genetic algorithms” *Proc. 3rd Int. Conf. On Genetic Algorithms.* pp. 379-384.

Nolfi S. and Parisi D. 1992. “Growing neural networks”, *Artificial Life 3.* Santa Fe, New Mexico, June 15-19.

Nolfi S. and Parisi D. 1995. “’Genotypes’ for neural networks”, *Handbook of brain theory and neural networks.* MIT Press. pp. 431-434.

Omlin C. W. and Giles C. L. 1996. “Constructing deterministic finite-state automata in recurrent neural networks.” *Journal of the Association for Computing Machinery.* Vol. 43. pp. 937-972.

Prechelt L. 1994. “PROBEN1 A Set of Neural Network benchmark problems and benchmarking rules.” *Technical Report*. 21/94. Fakult¨at f¨ur Informatik, Universit¨at Karlsruhe, 76128 Karlsruhe, Germany.

Prechelt L. 1995. “Adaptive parameter pruning in neural networks” *Tech. Report. 95-009. International Computer Science Institute, Berkley. CA.*

Prechelt L. 1997. “Investigation into the CasCor Family of learning algorithms” *Neural Networks.* Vol. 10. No. 5. pp. 885-896.

Poggio T. and Girosi F. 1990. “Extensions of a Theory of Networks for Approximation and Learning: Dimenslonality Reduction and Clustering” *MIT. Artificial Intelligence Laboratory, A. I. Memo No. 1167,* Boston, MA.

Rinzel J. and Ermentrout G. B. 1989. “Analysis of neural excitability and oscillations” *Methods in Neural Modelling – From Synapses to Networks.* MIT Press, pp. 135-169.

Rosenblatt F. 1958. “The Perceptron: A probabilistic model for information storage and organisation in the brain.” *Psychological Review.* Vol. 65. pp. 386-408.

Rumelhart D. E., Hinton G. E. and Williams R. J. 1986. “Learning Internal Representations by Error Propagation.” In Rummelhart, D. E. and McClelland, J. L., *Parallel Distributed Processing: Explorations in the Microstructure of Cognition.* MIT Press.

Tabak J. Rinzel J. and O’Donovan M. J. 2001 “The role of activity-dependent network depression in the expression and self-regulation of spontaneous activity in the developing spinal cord.” *Journal of Neuroscience,* Nov 15, 21(22):8977-78.

Schoenauer T. Jahnke A., Roth U and Klar H. 1998 “Digital Neurohardware: Principles and Perspectives” *Neuronal Networks in Applications,* Madgedeburg.

Sietsma J. and Dow R. J. F. 1988. “Neural Net Pruning: Why and How” *Proc. IEEE Conf. Neural Networks*. San Diego. Vol. 1. pp. 325-333.

Simula O. Ahola J. Alhoniemi E. Himberg J. Vesanto J. 1999 “Self-Organising Map in Analysis of Large-Scale Industrial Systems” *Kohonen Maps*. Elsevier. pp. 375-387.

Suga N. 1985 “The extent to which biosonar information is represented in the bat auditory cortex” in *Computation Neuroscience*, G.M. Edelman, W.E. Gall and W.M. Cowan, eds. pp. 653-695. New York: Wiley (Interscience)

Sutton R. S. and Barto A. G. 1998. “Reinforcement Learning: An Introduction (Adaptive Computation and Machine Learning)”. *MIT Press.*

Thimm G. and Fiesler E. 1997. “Pruning of Neural Networks” *IDIAP Research Report*. 97-03. http://www.idiap.ch.

Ursem R. K. 2000 “Multinational GAs: Multimodal Optimization Techniques in Dynamic Environments” *Proc. 2nd Genetic and Evolutionary Computation Conference (GECCO)*. vol. 1. pp. 19-26.

Varsta M. Heikkonen J. Lampinen J. 2000 “Analytical comparison of the Temporal Kohonen Map and the Recurrent Self Organizing Map.” In Michel Verleysen, editor, *Proc. ESANN'2000*, pp. 273-280.

Watrous R. L. 1988. “Learning Algorithms for Connectionist Networks: Applied Gradient Methods of Non-linear Optimisations”, *Tech Report*. MC-CIS-88-62, University of Pennsylvania, Dept of CIS.

Werbos P. 1974. *PhD Thesis*. Harvard University, Cambridge, MA.