

A Bibliography

- [AgSa05] P.M. Agrawal, A.N.A. Samadh, L.M. Raff, M. Hagan, S. T. Bukkapatnam, and R. Komanduri, “Prediction of molecular-dynamics simulation results using feedforward neural networks: Reaction of a C2 dimer with an activated diamond (100) surface,” *The Journal of Chemical Physics* 123, 224711, 2005. (Chapter 24)
- [Albe72] A. Albert, *Regression and the Moore-Penrose Pseudoinverse*, New York: Academic Press, 1972. (Chapter 7)
- [AmMu97] S. Amari, N. Murata, K.-R. Muller, M. Finke, and H. H. Yang, “Asymptotic Statistical Theory of Overtraining and Cross-Validation,” *IEEE Transactions on Neural Networks*, vol. 8, no. 5, 1997. (Chapter 13)
- [Ande72] J. A. Anderson, “A simple neural network generating an interactive memory,” *Mathematical Biosciences*, vol. 14, pp. 197–220, 1972. (Chapter 1, 15, 21)
- [AnRo88] J. A. Anderson and E. Rosenfeld, *Neurocomputing: Foundations of Research*, Cambridge, MA: MIT Press, 1989. (Chapter 1, 10)
- [AnSi77] J. A. Anderson, J. W. Silverstein, S. A. Ritz and R. S. Jones, “Distinctive features, categorical perception, and probability learning: Some applications of a neural model,” *Psychological Review*, vol. 84, pp. 413–451, 1977. (Chapter 21)
- [Barn92] E. Barnard, “Optimization for training neural nets,” *IEEE Transactions on Neural Networks*, vol. 3, no. 2, pp. 232–240, 1992. (Chapter 12)
- [BaSu83] A. R. Barto, R. S. Sutton and C. W. Anderson, “Neuronlike adaptive elements that can solve difficult learning control problems,” *IEEE Transactions on Systems, Man, and Cybernetics*, vol. 13, pp. 834–846, 1983. (Chapter 4)
- [Batt92] R. Battiti, “First and second order methods for learning: Between steepest descent and Newton’s method,” *Neural Computation*, vol. 4, no. 2, pp. 141–166, 1992. (Chapter 9, 12)
- [Bish91] C. M. Bishop, “Improving the generalization properties of radial basis function neural networks,” *Neural Computation*, vol. 3, no. 4, pp. 579–588, 1991. (Chapter 17)

A Bibliography

- [Bish95] C.M. Bishop, *Neural Networks for Pattern Recognition*, Oxford University Press, 1995. (Chapter 22)
- [BlDe99] J. A. Blackard and D. J. Dean, "Comparative Accuracies of Artificial Neural Networks and Discriminant Analysis in Predicting Forest Cover Types from Cartographic Variables," *Computers and Electronics in Agriculture*, vol. 24, pp. 131-151, 1999. (Chapter 26)
- [BoJe94] G.E.P. Box, G.M. Jenkins, and G.C. Reinsel, *Time Series Analysis: Forecasting and Control*, 4th Edition, John Wiley & Sons, 2008. (Chapter 22, 27)
- [BrLo88] D.S. Broomhead and D. Lowe, "Multivariable function interpolation and adaptive networks," *Complex Systems*, vol.2, pp. 321-355, 1988. (Chapter 17)
- [Brog91] W. L. Brogan, *Modern Control Theory*, 3rd Ed., Englewood Cliffs, NJ: Prentice-Hall, 1991. (Chapter 4, 5, 6, 8, 9, 20)
- [CaGr87a] G. A. Carpenter and S. Grossberg, "A massively parallel architecture for a self-organizing neural pattern recognition machine," *Computer Vision, Graphics, and Image Processing*, vol. 37, pp. 54–115, 1987. (Chapter 19)
- [CaGr87b] G. A. Carpenter and S. Grossberg, "ART2: Self-organization of stable category recognition codes for analog input patterns," *Applied Optics*, vol. 26, no. 23, pp. 4919–4930, 1987. (Chapter 19)
- [CaGr90] G. A. Carpenter and S. Grossberg, "ART3: Hierarchical search using chemical transmitters in self-organizing pattern recognition architectures," *Neural Networks*, vol. 3, no. 23, pp. 129–152, 1990. (Chapter 19)
- [CaGrMa92] G. A. Carpenter, S. Grossberg, N. Markuzon, J. H. Reynolds and D. B. Rosen, "Fuzzy ARTMAP: A neural network architecture for incremental learning of analog multidimensional maps," *IEEE Transactions on Neural Networks*, vol. 3, pp. 698–713, 1992. (Chapter 19)
- [CaGrRe91] G.A. Carpenter, S. Grossberg and J. Reynolds, "ARTMAP: Supervised real-time learning and classification of nonstationary data by a self-organizing neural network," *Neural Networks*, vol. 4, pp. 565–588, 1991. (Chapter 19)
- [Char92] C. Charalambous, "Conjugate gradient algorithm for efficient training of artificial neural networks," *IEEE Proceedings*, vol. 139, no. 3, pp. 301–310, 1992. (Chapter 12)

A Bibliography

- [ChCo91] S. Chen, C.F.N. Cowan, and P.M. Grant, “Orthogonal least squares learning algorithm for radial basis function networks,” *IEEE Transactions on Neural Networks*, vol.2, no.2, pp.302-309, 1991. (Chapter 17)
- [ChCo92] S. Chen, P. M. Grant, and C. F. N. Cowan, “Orthogonal least squares algorithm for training multioutput radial basis function networks,” *Proceedings of the Institute of Electrical Engineers*, vol. 139, Pt. F, no. 6, pp. 378–384, 1992. (Chapter 17)
- [ChCh96] S. Chen, E. S. Chng, and K. Alkadhim, “Regularised orthogonal least squares algorithm for constructing radial basis function networks,” *International Journal of Control*, vol. 64, no. 5, pp. 829–837, 1996. (Chapter 17)
- [ChCo99] S. Chen, C.F.N. Cowan, and P.M. Grant, “Combined Genetic Algorithm Optimization and Regularized Orthogonal Least Squares Learning for Radial Basis Function Networks,” *IEEE Transactions on Neural Networks*, vol.10, no.5, pp.302-309, 1999. (Chapter 17)
- [CoGr83] M. A. Cohen and S. Grossberg, “Absolute stability of global pattern formation and parallel memory storage by competitive neural networks,” *IEEE Transactions on Systems, Man, and Cybernetics*, vol. 13, no. 5, pp. 815–826, 1983. (Chapter 20, 21)
- [DARP88] *DARPA Neural Network Study*, Lexington, MA: MIT Lincoln Laboratory, 1988. (Chapter 1)
- [DeHa07] O. De Jesús and M. Hagan, “Backpropagation Algorithms for a Broad Class of Dynamic Networks,” *IEEE Transactions on Neural Networks*, vol. 18, no. 1, pp., 2007. (Chapter 14)
- [Dubi00] D. Dubin, *Rapid Interpretation of EKG's*, Sixth Edition, Tampa, FL: COVER, 2000. (Chapter 25)
- [Fahl89] S. E. Fahlman, “Fast learning variations on back-propagation: An empirical study,” in *Proceedings of the 1988 Connectionist Models Summer School*, D. Touretzky, G. Hinton and T. Sejnowski, eds., San Mateo, CA: Morgan Kaufmann, pp. 38–51, 1989. (Chapter 12)
- [FoGi07] L. Fortuna, P. Giannone, S. Graziani, M. G. Xibilia, “Virtual Instruments Based on Stacked Neural Networks to Improve Product Quality Monitoring in a Refinery,” *IEEE Transactions on Instrumentation and Measurement*, vol. 56, no. 1, pp. 95–101, 2007. (Chapter 23)

A Bibliography

- [FoHa97] D. Foresee and M. Hagan, "Gauss-Newton Approximation to Bayesian Learning," *Proceedings of the 1997 International Joint Conference on Neural Networks*, vol. 3, pp. 1930 - 1935, 1997. (Chapter 13)
- [FrSk91] J. Freeman and D. Skapura, *Neural Networks: Algorithms, Applications, and Programming Techniques*, Reading, MA: Addison-Wesley, 1991. (Chapter 16)
- [Gill81] P. E. Gill, W. Murray and M. H. Wright, *Practical Optimization*, New York: Academic Press, 1981. (Chapter 8, 9)
- [GoLa98] C. Goutte and J. Larsen, "Adaptive Regularization of Neural Networks Using Conjugate Gradient," *Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing*, vol. 2, pp. 1201-1204, 1998. (Chapter 13)
- [GrMi89] S. Grossberg, E. Mingolla and D. Todorovic, "A neural network architecture for preattentive vision," *IEEE Transactions on Biomedical Engineering*, vol. 36, no. 1, pp. 65–84, Jan. 1989. (Chapter 18)
- [Gros67] S. Grossberg, "Nonlinear difference-differential equations in prediction and learning theory," *Proceedings of the National Academy of Sciences*, vol. 58, pp. 1329–1334, 1967. (Chapter 21)
- [Gros68] S. Grossberg, "Some physiological and biochemical consequences of psychological postulates," *Proceedings of the National Academy of Sciences*, vol. 60, pp. 758–765, 1968. (Chapter 15)
- [Gros76] S. Grossberg, "Adaptive pattern classification and universal recoding: I. Parallel development and coding of neural feature detectors," *Biological Cybernetics*, vol. 23, pp. 121–134, 1976. (Chapter 1, 18, 19)
- [Gros80] S. Grossberg, "How does the brain build a cognitive code?" *Psychological Review*, vol. 88, pp. 375–407, 1980. (Chapter 1)
- [Gros82] S. Grossberg, *Studies of Mind and Brain*, Boston: D. Reidel Publishing Co., 1982. (Chapter 15, 18, 19)
- [Gros90] S. Grossberg, "Neural networks: From foundations to applications," Short-Course Notes, Boston University, Boston, MA, May 6–11, 1990. (Chapter 18)
- [HaBo07] L. Hamm, B. W. Brorsen and M. T. Hagan, "Comparison of Stochastic Global Optimization Methods to Estimate Neu-

A Bibliography

- ral Network Weights,” *Neural Processing Letters*, vol. 26, no. 3, December 2007. (Chapter 22)
- [HaDe02] M. Hagan, H. Demuth, O. De Jesus, “An Introduction to the Use of Neural Networks in Control Systems,” *International Journal of Robust and Nonlinear Control*, vol. 12, no. 11, pp. 959–985, 2002. (Chapter 27)
- [HaMe94] M. T. Hagan and M. Menhaj, “Training feedforward networks with the Marquardt algorithm,” *IEEE Transactions on Neural Networks*, vol. 5, no. 6, pp. 989–993, 1994. (Chapter 12)
- [HeBa99] S. Hettich and S. D. Bay, *The UCI KDD Archive* [<http://kdd.ics.uci.edu>], Irvine, CA: University of California, Department of Information and Computer Science, 1999. (Chapter 26)
- [Hebb 49] D. O. Hebb, *The Organization of Behavior*, New York: Wiley, 1949. (Chapter 1, 7, 15)
- [Hech90] R. Hecht-Nielsen, *Neurocomputing*, Reading, MA: Addison-Wesley, 1990. (Chapter 16)
- [HeOh97] B. Hedén, H. Öhlin, R. Rittner, L. Edenbrandt, “Acute Myocardial Infarction Detected in the 12-Lead ECG by Artificial Neural Networks,” *Circulation*, vol. 96, pp. 1798–1802, 1997. (Chapter 22)
- [Himm72] D. M. Himmelblau, *Applied Nonlinear Programming*, New York: McGraw-Hill, 1972. (Chapter 8, 9)
- [Hopf82] J. J. Hopfield, “Neural networks and physical systems with emergent collective computational properties,” *Proceedings of the National Academy of Sciences*, vol. 79, pp. 2554–2558, 1982. (Chapter 1, 21)
- [Hopf84] J. J. Hopfield, “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, 1984. (Chapter 21)
- [HoTa85] J. J. Hopfield and D. W. Tank, “‘Neural’ computation of decisions in optimization problems,” *Biological Cybernetics*, vol. 52, pp. 141–154, 1985. (Chapter 21)
- [HoSt89] K. M. Hornik, M. Stinchcombe and H. White, “Multilayer feedforward networks are universal approximators,” *Neural Networks*, vol. 2, no. 5, pp. 359–366, 1989. (Chapter 11)

A Bibliography

- [Hube88] D. H. Hubel, *Eye, Brain, and Vision*, New York: Scientific American Library, 1988. (Chapter 18)
- [Jaco88] R. A. Jacobs, "Increased rates of convergence through learning rate adaptation," *Neural Networks*, vol. 1, no. 4, pp. 295–308, 1988. (Chapter 12)
- [John01] G. L. Johnson, "Contributions to the comparative anatomy of the mammalian eye, chiefly based on ophthalmoscopic examination," *Philosophical Transactions of the Royal Society of London*, Series B., vol. 194, pp. 1–82, Plate 1, 1901. (Chapter 18)
- [Joll02] I.T. Jolliffe, *Principal Component Analysis*, Springer Series in Statistics, 2nd ed., Springer, NY, 2002. (Chapter 22)
- [Koho72] T. Kohonen, "Correlation matrix memories," *IEEE Transactions on Computers*, vol. 21, pp. 353–359, 1972. (Chapter 1, 15, 21)
- [Koho87] T. Kohonen, *Self-Organization and Associative Memory*, 2nd Ed., Berlin: Springer-Verlag, 1987. (Chapter 15, 16)
- [Koho93] T. Kohonen, "Things you haven't heard about the Self-Organizing Map," *Proceedings of the International Conference on Neural Networks (ICNN)*, San Francisco, pp. 1147-1156, 1993. (Chapter 26)
- [Koho95] T. Kohonen, *Self-Organizing Map*, 2nd ed., Springer-Verlag, Berlin, 1995. (Chapter 26)
- [LaSa67] J. P. LaSalle, "An invariance principle in the theory of stability," in *Differential Equations and Dynamic Systems*, J. K. Hale and J. P. Lasalle, eds., New York: Academic Press, pp. 277–286, 1967. (Chapter 20)
- [LeCu85] Y. Le Cun, "Une procedure d'apprentissage pour reseau a seuil assymetrique," *Cognitiva*, vol. 85, pp. 599–604, 1985. (Chapter 11)
- [LeCu98] Y. LeCun, L. Bottou, G. B. Orr, K.-R. Mueller, "Efficient BackProp," *Lecture Notes in Computer Science*, vol. 1524, 1998. (Chapter 22)
- [Leib90] D. Lieberman, *Learning, Behavior and Cognition*, Belmont, CA: Wadsworth, 1990. (Chapter 15)

A Bibliography

- [LiMi89] J. Li, A. N. Michel and W. Porod, "Analysis and synthesis of a class of neural networks: Linear systems operating on a closed hypercube," *IEEE Transactions on Circuits and Systems*, vol. 36, no. 11, pp. 1405–1422, November 1989. (Chapter 21)
- [Lowe89] D. Lowe, "Adaptive radial basis function nonlinearities, and the problem of generalization," *Proceedings of the First IEE International Conference on Artificial Neural Networks*, pp. 171 - 175, 1989. (Chapter 17)
- [MacK92] D. J. C. MacKay, "Bayesian Interpolation," *Neural Computation*, vol. 4, pp. 415-447, 1992. (Chapter 13)
- [MaNe99] J.R. Magnu and H. Neudecker, *Matrix Differential Calculus*, John Wiley & Sons, Ltd., Chichester, 1999. (Chapter 14)
- [MaGa00] E. A. Maguire, D. G. Gadian, I. S. Johnsrude, C. D. Good, J. Ashburner, R. S. J. Frackowiak, and C. D. Frith, "Navigation-related structural change in the hippocampi of taxi drivers," *Proceedings of the National Academy of Sciences*, vol. 97, no. 8, pp. 4398-4403, 2000. (Chapter 1)
- [McPi43] W. McCulloch and W. Pitts, "A logical calculus of the ideas immanent in nervous activity," *Bulletin of Mathematical Biophysics*, vol. 5, pp. 115–133, 1943. (Chapter 1, 4, 21)
- [Mill90] A.J. Miller, *Subset Selection in Regression*. Chapman and Hall, N.Y., 1990. (Chapter 17)
- [Mill93] M.F. Miller, "A scaled conjugate gradient algorithm for fast supervised learning," *Neural Networks*, vol. 6, pp. 525-533, 1993. (Chapter 24)
- [MoDa89] J. Moody and C.J. Darken, "Fast Learning in Networks of Locally-Tuned Processing Units," *Neural Computation*, vol. 1, pp. 281–294, 1989. (Chapter 17)
- [Moll93] M. Moller, "A scaled conjugate gradient algorithm for fast supervised learning," *Neural Networks*, vol. 6, pp. 525-533, 1993. (Chapter 22)
- [MoMa01] G.B. Moody, R.G. Mark, and A.L. Goldberger, "PhysioNet: a Web-based resource for the study of physiologic signals," *IEEE Transactions on Engineering in Medicine and Biology*, vol. 20, no. 3, pp: 70-75, 2001. (Chapter 25)
- [MiPa69] M. Minsky and S. Papert, *Perceptrons*, Cambridge, MA: MIT Press, 1969. (Chapter 1, 4)

A Bibliography

- [NaMu97] Narendra, K.S.; Mukhopadhyay, S., “Adaptive control using neural networks and approximate models,” *IEEE Transactions on Neural Networks*, vol. 8, no. 3, pp. 475 - 485, 1997. (Chapter 27)
- [NaPa90] K. S. Narendra and K. Parthasarathy, “Identification and control of dynamical systems using neural networks,” *IEEE Transactions on Neural Networks*, vol. 1, no. 1, pp. 4–27, 1990. (Chapter 27)
- [NgWi90] D. Nguyen and B. Widrow, “Improving the learning speed of 2-layer neural networks by choosing initial values of the adaptive weights,” *Proceedings of the IJCNN*, vol. 3, pp. 21–26, July 1990. (Chapter 12, 22)
- [OrHa00] M. J. Orr, J. Hallam, A. Murray, and T. Leonard, “Assessing rbf networks using delve,” *IJNS*, 2000. (Chapter 17)
- [Park85] D. B. Parker, “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, 1985. (Chapter 11)
- [PaSa93] J. Park and I.W. Sandberg, “Universal approximation using radial-basis-function networks,” *Neural Computation*, vol. 5, pp. 305-316, 1993. (Chapter 17)
- [PeCo93] M. P. Perrone and L. N. Cooper, “When networks disagree: Ensemble methods for hybrid neural networks,” in *Neural Networks for Speech and Image Processing*, R. J. Mammone, Ed., Chapman-Hall, pp. 126-142, 1993. (Chapter 22)
- [PhHa13] M. Phan and M. Hagan, “Error Surface of Recurrent Networks,” *IEEE Transactions on Neural Networks and Learning Systems*, vol. 24, no. 11, pp. 1709 - 1721, October, 2013. (Chapter 14)
- [Powe87] M.J.D. Powell, “Radial basis functions for multivariable interpolation: a review,” *Algorithms for Approximation*, pp. 143-167, Oxford, 1987. (Chapter 17)
- [PuFe97] G.V. Puskorius and L.A. Feldkamp, “Extensions and enhancements of decoupled extended Kalman filter training,” *Proceedings of the 1997 International Conference on Neural Networks*, vol. 3, pp. 1879-1883, 1997. (Chapter 22)
- [RaMa05] L.M. Raff, M. Malshe, M. Hagan, D.I. Doughan, M.G. Rockley, and R. Komanduri, “*Ab initio* potential-energy surfaces for complex, multi-channel systems using modified novelty sampling and feedforward neural networks,” *The Journal of Chemical Physics*, vol. 122, 2005. (Chapter 22, 24)

A Bibliography

- [RiIr90] A. K. Rigler, J. M. Irvine and T. P. Vogl, “Rescaling of variables in back propagation learning,” *Neural Networks*, vol. 3, no. 5, pp 561–573, 1990. (Chapter 12)
- [Rose58] F. Rosenblatt, “The perceptron: A probabilistic model for information storage and organization in the brain,” *Psychological Review*, vol. 65, pp. 386–408, 1958. (Chapter 1, 4)
- [Rose61] F. Rosenblatt, *Principles of Neurodynamics*, Washington DC: Spartan Press, 1961. (Chapter 4)
- [RuHi86] D. E. Rumelhart, G. E. Hinton and R. J. Williams, “Learning representations by back-propagating errors,” *Nature*, vol. 323, pp. 533–536, 1986. (Chapter 11)
- [RuMc86] D. E. Rumelhart and J. L. McClelland, eds., *Parallel Distributed Processing: Explorations in the Microstructure of Cognition*, vol. 1, Cambridge, MA: MIT Press, 1986. (Chapter 1, 11, 16)
- [Sarle95] W. S. Sarle, “Stopped training and other remedies for overfitting,” In *Proceedings of the 27th Symposium on Interface*, 1995. (Chapter 13)
- [Sca185] L. E. Scales, *Introduction to Non-Linear Optimization*, New York: Springer-Verlag, 1985. (Chapter 8, 9, 12)
- [ScSm99] B. Schölkopf, A. Smola, K.-R. Muller, “Kernel Principal Component Analysis,” in B. Schölkopf, C. J. C. Burges, A. J. Smola (Eds.), *Advances in Kernel Methods-Support Vector Learning*, MIT Press Cambridge, MA, USA, pp. 327-352, 1999. (Chapter 22)
- [Shan90] D. F. Shanno, “Recent advances in numerical techniques for large-scale optimization,” in *Neural Networks for Control*, Miller, Sutton and Werbos, eds., Cambridge, MA: MIT Press, 1990. (Chapter 12)
- [SjLj94] J. Sjoberg and L. Ljung, “Overtraining, regularization and searching for minimum with application to neural networks,” Linköping University, Sweden, Tech. Rep. LiTH-ISY-R-1567, 1994. (Chapter 13)
- [SLLi91] J.-J. E. Slotine and W. Li, *Applied Nonlinear Control*, Englewood Cliffs, NJ: Prentice-Hall, 1991. (Chapter 20)
- [StDo84] W. D. Stanley, G. R. Dougherty and R. Dougherty, *Digital Signal Processing*, Reston VA: Reston Publishing Co., 1984. (Chapter 10)

A Bibliography

- [Stra76] G. Strang, *Linear Algebra and Its Applications*, New York: Academic Press, 1980. (Chapter 5, 6)
- [TaHo86] D. W. Tank and J. J. Hopfield, "Simple 'neural' optimization networks: An A/D converter, signal decision circuit and a linear programming circuit," *IEEE Transactions on Circuits and Systems*, vol. 33, no. 5, pp. 533–541, 1986. (Chapter 21)
- [TeSi00] J. B. Tenenbaum, V. de Silva, J. C. Langford, "A Global Geometric Framework for Nonlinear Dimensionality Reduction," *Science*, vol. 290, pp. 2319–2323, 2000. (Chapter 25)
- [Tikh63] A. N. Tikhonov, "The solution of ill-posed problems and the regularization method," *Dokl. Acad. Nauk USSR*, vol. 151, no. 3, pp. 501–504, 1963. (Chapter 13)
- [Toll90] T. Tollenaere, "SuperSAB: Fast adaptive back propagation with good scaling properties," *Neural Networks*, vol. 3, no. 5, pp. 561–573, 1990. (Chapter 12)
- [vanT75] H. F. J. M. van Tuijl, "A new visual illusion: Neonlike color spreading and complementary color induction between subjective contours," *Acta Psychologica*, vol. 39, pp. 441–445, 1975. (Chapter 18)
- [VoMa88] T. P. Vogl, J. K. Mangis, A. K. Zigler, W. T. Zink and D. L. Alkon, "Accelerating the convergence of the backpropagation method," *Biological Cybernetics*, vol. 59, pp. 256–264, Sept. 1988. (Chapter 12)
- [vond73] C. von der Malsburg, "Self-organization of orientation sensitive cells in the striate cortex," *Kybernetik*, vol. 14, pp. 85–100, 1973. (Chapter 18)
- [WaVe94] C. Wang, S. S. Venkatesh, and J. S. Judd, "Optimal Stopping and Effective Machine Complexity in Learning," *Advances in Neural Information Processing Systems*, J. D. Cowan, G. Tesauero, and J. Alspector, Eds., vol. 6, pp. 303–310, 1994. (Chapter 13)
- [Werbo74] P. J. Werbos, "Beyond regression: New tools for prediction and analysis in the behavioral sciences," Ph.D. Thesis, Harvard University, Cambridge, MA, 1974. Also published as *The Roots of Backpropagation*, New York: John Wiley & Sons, 1994. (Chapter 11)
- [Werb90] P. J. Werbos, "Backpropagation through time: What it is and how to do it," *Proceedings of the IEEE*, vol. 78, pp. 1550–1560, 1990. (Chapter 14)

A Bibliography

- [WeTe84] J. F. Werker and R. C. Tees, “Cross-language speech perception: Evidence for perceptual reorganization during the first year of life,” *Infant Behavior and Development*, vol. 7, pp. 49-63, 1984. (Chapter 1)
- [WhSo92] D. White and D. Sofge, eds., *Handbook of Intelligent Control*, New York:Van Nostrand Reinhold, 1992. (Chapter 4)
- [WiHo60] B. Widrow, M. E. Hoff, “Adaptive switching circuits,” *1960 IRE WESCON Convention Record*, New York: IRE Part 4, pp. 96–104, 1960. (Chapter 1, 10)
- [WiSt 85] B. Widrow and S. D. Stearns, *Adaptive Signal Processing*, Englewood Cliffs, NJ: Prentice-Hall, 1985. (Chapter 10)
- [WiWi 88] B. Widrow and R. Winter, “Neural nets for adaptive filtering and adaptive pattern recognition,” *IEEE Computer Magazine*, March 1988, pp. 25–39. (Chapter 10)
- [WiZi89] R. J. Williams and D. Zipser, “A learning algorithm for continually running fully recurrent neural networks,” *Neural Computation*, vol. 1, pp. 270–280, 1989. (Chapter 14)