

Bibliography

Referenced Bibliography

The following bibliography is referenced from this thesis.

- Ahmed N., T. Natarajan and K.R. Rao (1974) Discrete Cosine Transform in IEEE Transactions on Computers, January 1974. pp 90-93
- Allen J. B. and L. R. Rabiner. (1977) A unified approach to short-time Fourier analysis, synthesis. Proc. IEEE, 65(11):1558-1564, November 1977.
- Amari, S-I., A. Cichocki, and H.H. Yang. (1996) A new learning algorithm for blind signal separation. In *Advances in Neural Information Processing Systems 8*. MIT Press, Cambridge, MA.
- Amari, S-I., S.C. Douglas, A. Cichocki, and H.H. Yang, (1997) Multichannel Blind Deconvolution and Equalization Using the Natural Gradient. In *Proc. IEEE Workshop on Signal Processing Advances in Wireless Communications*, Paris, France, pp. 101-104.
- Atick, J.J. and A.N. Redlich. (1990) Towards a theory of early visual processing. In *Neural Computation 2*. pp. 308-320. MIT Press, Cambridge, MA.
- Attneave, F. (1954) Informational aspects of visual perception. *Psychological Review 61*, pp. 183-193.
- Barlow, H.B. (1959) Sensory mechanisms, the reduction of redundancy, and intelligence. In *National Physical Laboratory Symposium No. 10*, The Mechanization of Thought Processes.
- Barlow, H.B. (1961) Possible principles underlying the transformation of sensory messages, In *Sensory Communication*, W. Rosenblith, ed., pp. 217-234. MIT Press, Cambridge, MA.
- Barlow, H.B. (1989) Unsupervised learning. In *Neural Computation 1*, pp. 295-311. MIT Press, Cambridge, MA.
- Bell, A.J. and T.J. Sejnowski. (1995) An information maximization approach to blind separation and blind deconvolution. In *Neural Computation 7*. pp. 1129-1159. MIT Press, Cambridge, MA.

Bibliography

- Bell A.J. and Sejnowski T.J. (1996) Learning the higher-order structure of a natural sound, *Network: Computation in Neural Systems*, 7
- Bell, A. J. and Sejnowski, T. J. (1997). The 'independent components' of natural scenes are edge filters. *Vision Research*, 37(23) 3327-3338
- Bregman, A.S. (1990) *Auditory Scene Analysis*, MIT Press, Cambridge, MA.
- Brown, G.J. (1992) *Computational auditory scene analysis: A representational approach*. Ph.D. dissertation, University of Sheffield, Computer Science Dept., Sept, 1992.
- Brown, J. C. (1991). "Calculation of a constant Q spectral transform." *Journal of the Acoustical Society of America* 89(1): 425-434.
- Cardoso, J-F. (1990) Eigen-structure of the fourth-order cumulant tensor with application to the blind source separation problem. In *Proceedings ICASSP*, pages 2655-2658.
- Cardoso, J-F, and A. Souloumiac (1993) Blind beamforming for non Gaussian signals. In *IEE Proceedings-F*, 140(6):362-370.
- Cardoso, J-F. (1995a) A tetradic decomposition of 4th-order tensors: application to the source separation problem. In M. Moonen and B. de Moor, editors, *Algorithms, architectures and applications*, volume III of SVD and signal processing, pp 375-382.
- Cardoso, J-F. (1995b) The invariant approach to source separation In *Proc. NOLTA*, pages 55-60.
- Casey, M. and Westner, W., (2000) Separation of Mixed Audio Sources by Independent Subspace Analysis, in *Proceedings of the International Computer Music Conference, ICMC*, Berlin.
- Cherry, E. C. (1953) Some experiments on the recognition of speech, with one and two ears. *Journal of the Acoustic Society of America*, 25:975-979.
- Comon, P. (1989) Independent component analysis - a new concept? In *Signal Processing* 36, pp. 287-314.
- Cooke, M.P. (1991) *Modeling auditory processing and organization*. Ph.D. thesis, University of Sheffield, Dept. of computer science.
- Clarke, R.J. (1981) Relation between the Karhunen Loeve and Cosine Transforms, *IEE Proceedings*, vol. 128, pt. F, no. 6, pp.359-360.
- Dolson, M. (1986). The phase vocoder: A tutorial. *Computer Music Journal*, 10(4):14-27.

Bibliography

- Duda, R.O., R.F. Lyon, and M. Slaney. (1990) Correlograms and the separation of sounds. In *Proceedings Asilomar Conference on Signals, Systems and Computers 1990*.
- Ellis, D.P.W. (1992) A perceptual representation of sound. Masters thesis, MIT EECS Department.
- Ellis, D.P.W. (1994) A computer implementation of psychoacoustic rules. In 12th International Conference on Pattern Recognition, Jerusalem.
- Ellis, D.P.W. (1996) Prediction driven computational auditory scene analysis. Ph.D. thesis. EECS Department.
- Ellis, D.P.W., Vercoe, B.L. (1992). A perceptual representation of sound for auditory signal separation, Presented to the 123rd meeting of the Acoustical Society of America, Salt Lake City.
- Field, D.J. (1987). Relations between the statistics of natural images and the response properties of cortical cells. *Journal of the Optical Society of America A*, 4 2379-2394.
- Field, D.J. (1994) What is the goal of sensory coding? *Neural Computation*, 6 559-601.
- Flanagan, J. L. and Golden, R. M. (1966). Phase vocoder. *Bell System Technical Journal*, 45:1493-1509.
- Gabor D (1946) Theory of Communication, *Journal of the IEE* 93:429-441
- Golub, G.H., and C.F. Van Loan (1983) *Matrix Computations*, North Oxford Academic, Oxford.
- Gould, G. (1966) Invention No. 1 in C Major, BWV 772, Track 1 in Bach: Two- and Three-Part Inventions, released by Sony Classical 1993.
- Gray, R.M. (1972) On the asymptotic eigenvalue distribution of Toeplitz matrices, *IEEE transactions on information theory*, vol. IT-18, pp. 725-730.
- Grenander, U. and G. Szegö (1958) *Toeplitz forms and their applications*, University of California Press, Berkeley, CA.
- Grossman, A., Kronland-Martinet, R. and Morlet, J. (1990). Reading and understanding continuous wavelet transforms. In Combes, J. M., Grossman, A. & Tchamitchian, Ph. (Eds), *Wavelet – Time-frequency methods and phase space* (pp. 2–20). Berlin, Heidelberg, New York: Springer (2nd edition).

Bibliography

- Haykin, S. (1994) Neural networks, a comprehensive foundation. McMillan, New York, NY.
- Helmholtz, H.von (1925) Physiological Optics. Volume III. The Theory of the Perceptions of vision. Dover Publications, New York, 1962
- Herauld, J., C. and Jutten. (1991) Blind separation of sources, part I, An adaptive algorithm based on neuromimetic architecture. *Signal Processing* **24**, pp. 1-10.
- Hertz, J., A. Krogh, and R.G. Palmer. (1991) Introduction to the Theory of Neural Computation. Addison-Wesley, Redwood City, CA.
- Holiday, B. (1945) Blue moon, Track 19 CD 1 in Complete-On Verve 1945-59, released by PGD/Verve.
- Hopfield, J.J. (1991) Olfactory computation and object perception. *Proceedings of the National Academy of Sciences* **88**, 6462-6466.
- Hyvärinen, A. (1999) Fast and Robust Fixed-Point Algorithms for Independent Component Analysis *IEEE Transactions on Neural Networks* **10**(3):626-634.
- Hyvärinen, A and P. Pajunen, (1999) Nonlinear Independent Component Analysis: Existence and Uniqueness results. *Neural Networks* **12**(3): 429--439.
- Hyvärinen, A, P. Hoyer and E. Oja, (2000) Image Denoising by Sparse Code Shrinkage. To appear in S. Haykin and B. Kosko (eds), *Intelligent Signal Processing*, IEEE Press.
- Hyvärinen, A and P.O. Hoyer, (2000) Emergence of phase and shift invariant features by decomposition of natural images into independent feature subspaces. *Neural Computation*, **12**(7):1705-1720.
- Ikeda S. and N. Murata, (1999) A method of ICA in time-frequency domain, In *Proceedings of International Workshop on Independent Component Analysis and Blind Signal Separation*, pp.365-371.
- Johannesma, P.I.M. (1972) The pre-response stimulus ensemble of neurons in the cochlear nucleus. *Proc. of the symposium of hearing theory, IPO, Eindhoven, Netherlands.*
- Kahrs M, and K. Brandenburg. (1998) Applications of digital signal processing to audio and acoustics. Kluwer Academic Publishers Group, Dordrecht, Netherlands.
- Koffka, K. (1935) Principles of Gestalt Psychology , Lund Humphries, London.

Bibliography

- Lambert, R. H., (1996) Multichannel blind deconvolution: FIR matrix algebra and separation of multipath mixtures. Ph.D. dissertation, University of Southern California, EE dept. May 1996.
- Lee, T-W., A.J. Bell and R. Orglmeister. (1997) Blind Source Separation of Real World Signals, Proceedings of IEEE International Conference Neural Networks, June 97, Houston, pp 2129-2135.
- Linsker, R. (1986a) From Basic Network Principles to Neural Architecture - emergence of spatial opponent cells. Proceedings of the National Academy of Sciences, USA, 83 7508-7512.
- Linsker, R. (1986b) From Basic Network Principles to Neural Architecture - emergence of orientation selective cells. Proceedings of the National Academy of Sciences, USA,, 83 8390-8394.
- Linsker, R. (1986c) From Basic Network Principles to Neural Architecture - emergence of orientation columns. Proceedings of the National Academy of Sciences, USA, 83 8779-8783.
- Linsker, R. (1988) Self-Organization in a perceptual network. In *Computer 21* (March), pp. 105-117.
- Lyon, R. F. (1996) The All-Pole Gammatone Filter and Auditory Models, Structured transatlantic session: Computational models of signal processing in the auditory system, Forum Acusticum '96, Antwerp, Belgium, April 1-4, 1996.
- Makeig S., Bell A.J., Jung T-P., and Sejnowski T.J., (1996) "Independent component analysis of electroencephalographic data." *Advances in Neural Information Processing Systems* 8, 145-151.
- Makhoul, J. (1975). "Linear prediction: A tutorial review." *Proc IEEE* 63(4): 561-580.
- McKay, D. (1996) Maximum Likelihood and Covariant Algorithms for Independent Component Analysis, *Draft paper available at:*
<ftp://wol.ra.phy.cam.ac.uk/pub/mackay/ica.ps.gz>
- McAulay, R. J. and T. F. Quatieri (1986). "Speech analysis/synthesis based on a sinusoidal representation." *IEEE ASSP* 34(4): 744-754.
- Mellinger, D.K. (1991) Event formation and separation in musical sound. Ph.D. thesis, CCRMA, Stanford University.
- Moorer, J. (1975) On the segmentation and analysis of continuous musical sound, Report STAN-M-3, Stanford University Department of Music.
- Moore, R.F. (1990) Elements of computer music, Prentice Hall, NJ.

Bibliography

- Nadal J-P. and N. Parga. (1994) Nonlinear neurons in the low-noise limit: a factorial code maximizes information transfer. *Network: Computation in Neural Systems* Volume 5, Number 4 (November 1994), pp 565-581
- Nakatani, T., H.G. Okuno, and T. Kawabata. (1994) Auditory stream segregation in auditory scene analysis with a multi-agent system. In *AIII Conference Proceedings*, 1994.
- Oja, E. (1995) The nonlinear PCA learning rule and signal separation - mathematical analysis. Helsinki University of Technology, Laboratory of Computer and Information Science, Report A26.
- Olshausen, B.A. and Field, D.J. (1996) Emergence of simple-cell receptive-field properties by learning a sparse code for natural images. *Nature*, 381 607-609.
- Oppenheim A.V. and R.W. Schaffer. (1989) *Discrete-time signal processing*, Prentice Hall, Englewood Cliffs NJ.
- Parsons, T.W. (1976) Separation of speech from interfering speech by means of harmonic selection. *Journal of the Acoustical Society of America*, vol. **60**, pp. 911-918.
- Petersen, T.L., (1980). *Acoustic Signal Processing in the Context of a Perceptual Model*, Thesis in Computer Science, Univ. of Utah.
- Platt, J. and F. Faggin. (1992) In *Advances in Neural Information Processing 4*, J. Moody, S. Hanson, R. Lippmann, eds., pp. 730-737, Morgan-Kaufmann.
- Risset, J-C. (1965) Computer study of trumpet tones, in *Journal of Acoustical Society of America* 38:912 (abstract only)
- Redlich, A.N. (1993) Redundancy reduction as a strategy for unsupervised learning. *Neural Computation* **5**, pp. 289-304. MIT Press, Cambridge, MA.
- Rao K.R., P. Yip, (1990) *Discrete cosine transform, algorithms, advantages, applications*. Academic Press Inc, San Diego CA.
- Roads, C. (1996) *The computer music tutorial*. MIT press, Cambridge, MA.
- Sánchez, V., P. García, A.M. Peinado, J.C Segura and A.J. Rubio (1995) Diagonalizing properties of the Discrete Cosine Transforms, *IEEE transactions on Signal Processing* Vol. 43 No. 11, pp. 2631-2641.
- Serra, X. (1986) *A system for sound analysis/transformation/synthesis based on a deterministic plus stochastic decomposition*, PhD dissertation, Stanford University.

Bibliography

- Shannon, C. and W. Weaver (1963) "The Mathematical Theory of Communication" University of Illinois Press.
- Slaney, M., D. Naar and R.F. Lyon (1994) Auditory model inversion for sound separation. In Proc. ICASSP94, Adelaide, Australia.
- Smaragdis, P. (1997) Information Theoretic Approaches to Source Separation, Masters Thesis, MAS Department, Massachusetts Institute of Technology.
- Smaragdis P. (2001) Gestalt and Entropy. Machine Listening Group technical report, *in preparation*.
- Stockham, T.G., T.M. Cannon, and R.B. Ingerbretsen. (1975) Blind deconvolution through digital signal processing. In *Proc. IEEE*, vol. **63**, pp 678-692.
- Strang G. (1999) The discrete cosine transform, *SIAM Review* 41, pp 135-147.
- Trio, (1981) Da da da, I don't love you, you don't love me. Track 8 in album Trio, released by Mobile Suit.
- Torkkola, K. (1996) Blind separation of convolved sources based on information maximization, in proceedings of Neural Networks for Signal Processing 96.
- Torkkola, K. (1999) Blind separation for audio signals - Are we there yet?, Proceedings of ICA'99, Assois, France.
- Watanabe, S. (1960) Information-theoretical aspects of Inductive and Deductive Inference. *I.B.M. Journal of Research and Development*, 4 208-231.
- Weintraub, M. (1985) A theory and computational model of auditory monaural sound separation. Ph.D. dissertation, Stanford University, EE Dept.
- Wiener N. (1949) Extrapolation, Interpolation, and Smoothing of Stationary Time Series, MIT press, MA
- Vercoe, B. and D. Cumming. (1988) Connection machine tracking of polyphonic audio. In *Proceedings of International Computer Music Conference 1988*, pp. 211-218.

Bibliography
