

# List of Publications

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## **A. Books**

1. Pajunen, P. and Karhunen, J. (Eds.), "Proceedings of the Second International Workshop on Independent Component Analysis and Blind Source Separation". Espoo, Finland, June 19-22, 2000, 647 pages.
2. Hyvärinen, A., Karhunen, J., and Oja, E., "Independent Component Analysis". John Wiley, New York, 2001. 481+xxii pages. Translated in Japanese by Tokyo Denki Univ. Press in 2005, and a shortened version in Chinese by Publishing House in Electronic Industry in 2007.

## **B. Journal Papers and Book Chapters**

3. Oja, E. and Karhunen, J., "An Analysis of Convergence for a Learning Version of the Subspace Method", Journal of Mathematical Analysis and Applications, Vol. 91, No. 1, January 1983, pp. 102-111.
4. Oja, E. and Karhunen, J., "On Stochastic Approximation of the Eigenvectors and Eigenvalues of the Expectation of a Random Matrix", Journal of Mathematical Analysis and Applications, Vol. 106, No. 1, February 1985, pp. 69-84.
5. Karhunen, J. and Joutsensalo, J., "Sinusoidal Frequency Estimation by Signal Subspace Approximation", IEEE Transactions on Signal Processing, Vol. 40, No. 12, December 1992, pp. 2961-2972.
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8. Joutsensalo, J. and Karhunen, J., "A Nonlinear Extension of the Generalized Hebbian Learning", Neural Processing Letters, Vol. 2, No. 1, January 1995, pp. 5-8.

9. Karhunen, J. and Joutsensalo, J., "Generalizations of Principal Component Analysis, Optimization Problems, and Neural Networks", *Neural Networks*, Vol. 8, No. 4, 1995, pp. 549-562.
10. Oja, E., and Karhunen, J., "Signal Separation by Nonlinear Hebbian Learning". In M. Palaniswami et al. (Eds.), *Computational Intelligence - A Dynamic System Perspective*, IEEE Press, 1995, pp. 83-97. (Invited plenary paper in the 1995 IEEE Int. Conf. on Neural Networks (ICNN'95), Perth, Australia, November 27 - December 1, 1995.)
11. Oja, E., Karhunen, J., Wang, L., and Vigario, R., "Principal and Independent Components in Neural Networks - Recent Developments". In M. Marinaro and R. Tagliaferri (Eds.), *Neural Nets WIRN Vietri'95*, World Scientific, Singapore, 1995, pp. 16-35. (Invited paper in the 7th Italian Workshop on Neural Nets, Vietri sul Mare, Salerno, Italy, May 18-20, 1995).
12. Haapanen, M.-L., Liu, L., Hiltunen, T., Leinonen, L., and Karhunen, J., "Cul-de-sac Hypernasality Test with Pattern Recognition of LPC Indices", *Folia Phoniatica et Logopaedica*, Vol. 48, 1996, pp. 35-43.
13. Wang, L. and Karhunen, J., "A Unified Neural Bigradient Algorithm for Robust PCA and MCA", *International Journal of Neural Systems*, Vol. 7, No. 1, March 1996, pp. 53-67.
14. Karhunen, J., Oja, E., Wang, L., Vigario, R., and Joutsensalo, J., "A Class of Neural Networks for Independent Component Analysis", *IEEE Transactions on Neural Networks*, Vol. 8, No. 3, May 1997, pp. 486-504.
15. Karhunen, J., Cichocki, A., Kasprzak, W., and Pajunen, P., "On Neural Blind Separation with Noise Suppression and Redundancy Reduction", *International Journal of Neural Systems*, Vol. 8, No. 2, April 1997, pp. 219-237.
16. Oja, E., Karhunen, J., Hyvärinen, A., Vigario, R., and Hurri, J., "Neural Independent Component Analysis - Approaches and Applications". In N. Kasabov and S. Amari (Eds.), *Brain-Like Computing and Intelligent Information Systems*, Springer-Verlag Singapore, 1998, Chapter 8, pp. 167-188. (Invited plenary paper in the International Conference on Neural Information Processing (ICONIP'97), Dunedin, New Zealand, November 24-28, 1997.
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26. Valpola, H., Harva, M., and Karhunen, J., "Hierarchical Models of Variance Sources", *Signal Processing*, vol. 84, no. 2, February 2004, pp. 267-282.
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29. Raiko, T., Valpola, H., Harva, M., and Karhunen, J., "Building Blocks for Variational Learning of Latent Variable Models". *Journal of Machine Learning Research*, vol. 8, January 2007, pp. 155-201.
30. Karhunen, J. and Ukkonen, T., "Extending ICA for Finding Jointly Dependent Components from Two Related Data Sets". *Neurocomputing*, vol. 70, October 2007, pp. 2969-2979.
31. Honkela, A., Valpola, H., Ilin, A., and Karhunen, J., "Blind Separation of Nonlinear Mixtures by Variational Bayesian Learning". *Digital Signal Processing, Special Issue on Bayesian Source Separation*, vol. 17, no. 5, September 2007, pp. 914-934.

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## C. International Conference Papers

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44. Karhunen, J. and Joutsensalo, J., "Learning of Sinusoidal Frequencies by Nonlinear Constrained Hebbian Algorithms", in S.Y. Kung et al. (Eds.), Neural Networks for Signal Processing II (Proc. 1992 IEEE Workshop, Copenhagen, Denmark, August 1992), IEEE Press, New York 1992, pp. 39-48.
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