

List of Publications

Prof. Juha Karhunen

Aalto University, School of Science, Department of Information and Computer Science, P.O.
Box 15400, 00076 Aalto, Espoo, Finland

Email: juha.karhunen@aalto.fi URL: <http://users.ics.aalto.fi/juha/>

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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.
6. Karhunen, J. and Joutsensalo, J., "Representation and Separation of Signals Using Non-linear PCA Type Learning", *Neural Networks*. Vol. 7, No. 1, 1994, pp. 113-127.
7. Karhunen, J., "Stability of Oja's PCA Subspace Rule", *Neural Computation*, Vol. 6, No. 4, 1994, pp. 739-747.
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.)
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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.
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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.
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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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38. Cho, K., Raiko, T., Ilin, A., and Karhunen, J., "How to Pretrain Deep Boltzmann Machines in Two Stages". In P. Koprinkova-Hristova, V. Mladenov, and N. Kasabov (Eds.), *Artificial Neural Networks - Methods and Applications*, Springer Series in Bio-/Neuroinformatics, pp. 201-219, 2015.
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C. International Conference Papers

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44. Karhunen, J. and Oja, E., "New Methods for Stochastic Approximation of Truncated Karhunen-Loève Expansions", *Proc. of the 6th International Conference on Pattern Recognition*. Munich, Germany, Oct. 19-22, 1982, pp. 550-553.
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64. Karhunen, J., "Neural Approaches to Independent Component Analysis and Source Separation", Proc. of the 4th European Symposium on Artificial Neural Networks (ESANN'96), Bruges, Belgium, April 24-26, 1996, pp. 249-266. (Invited paper).
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