

Publications of Dr Konstantinos D. Koutroumbas

A. BOOKS

1. S. Theodoridis, K. Koutroumbas, "Pattern Recognition: Theory and Applications", Academic Press, 1998 .
2. S. Theodoridis, K. Koutroumbas, "Pattern Recognition: Theory and Applications", 2nd edition, Academic Press, 2003.
3. S. Theodoridis, K. Koutroumbas, "Pattern Recognition: Theory and Applications", 3rd edition, Academic Press, 2006.
4. S. Theodoridis, K. Koutroumbas, "Pattern Recognition: Theory and Applications", 4th edition, Academic Press, 2009.

** Each version is updated with respect to its previous.*

5. S. Theodoridis, A. Pikrakis, K. Koutroumbas, D. Cavouras, "Introduction to Pattern Recognition: A MATLAB approach", Academic Press, 2010.

B. SPECIAL ISSUES

1. I. A. Daglis, D. N. Baker, K. Koutroumbas (*editors*), "Special Issue on Space Weather Dynamics and Effects on Technology", IEEE Transactions on Plasma Science, Vol. 32, No. 4, August 2004.
2. S. Theodoridis, K. Koutroumbas, "Spectral Clustering", Encyclopedia of Database Systems, pp. 2748-2752, 2009.

C. BOOK CHAPTERS

1. S. Theodoridis, K. Koutroumbas. "Pattern Recognition and Neural Networks", in *Machine Learning and Applications*, eds. G. Paliouras, V. Karkaletsis, C. Spyropoulos, Lecture Notes on AI - Tutorial Series, Springer - Verlag, 2001.

D. JOURNAL PUBLICATIONS

1. K. Koutroumbas, N. Kalouptsidis, "Qualitative Analysis of the Parallel and Asynchronous Modes of the Hamming Network", *IEEE Transactions on Neural Networks*, Vol. 5, No. 3, pp. 380-391, May 1994.
2. K. Koutroumbas, N. Kalouptsidis, "Neural Network Architectures for Selecting the Maximum Input", *International Journal of Computer Mathematics*, Vol. 1-2, pp.25-32, 1998.
3. P. Karakitsos, A. Pouliakis, K. Koutroumbas, E. Botsoli Stergiou, M. Tzirvas, A. Archimandritis, A. Ioakim Liossi, "Neural Network Application in the Discrimination of Benign from Malignant Gastric Cells", *Analytical and Quantitative Cytology and Histology*, Vol. 22, No. 1, pp. 63-69, February 2000.
4. K. Koutroumbas, "On the Partitioning Capabilities of Feedforward Neural Networks with Sigmoid Nodes", *Neural Computation*, Vol. 15, No. 10, pp.2457-2481, 2003.
5. K. Koutroumbas, "Recurrent Algorithms for Selecting the Maximum Input", *Neural Processing Letters*, Vol. 20(3), pp. 179-197, 2004.
6. K. Koutroumbas, N. Kalouptsidis, "Generalized Hamming networks and Applications", *Neural Networks*, Vol. 18(7), pp. 896-913, 2005.
7. K. Koutroumbas, "COMAX: A Cooperative Method for Determining the Position of the Maxima", *Neural Processing Letters*, Vol. 22(2), pp. 205-221, 2005.
8. K. Koutroumbas, A. Belehaki, "One-step Ahead Prediction of f_0F_2 using Time Series Forecasting Techniques", *Annales Geophysicae*, Vol. 23, pp. 3035-3042, 2005.
9. B. Cochand-Priollet, K. Koutroumbas, T. M. Megalopoulou, A. Pouliakis, G. Sivolapenko, P. Karakitsos, "Discriminating Benign from Malignant Thyroid Lesions Using Artificial Intelligence and Statistical Selection of Morphometric Features", special issue on *Computational Analysis and Decision Support Systems in Oncology*, in *Oncology Reports*, Vol. 15, pp. 1023-1026, 2006.
10. T. M. Megalopoulou, K. Koutroumbas, A. Pouliakis, G. Sivolapenko, P. Karakitsos, "The Potential of Feature Selection by Statistical Techniques and the

use of Statistical Classifiers in the Discrimination of Benign from Malignant Gastric Lesions”, special issue on *Computational Analysis and Decision Support Systems in Oncology*, in *Oncology Reports*, Vol. 15, pp. 1033-1036, 2006.

11. N. Kalouptsidis, K. Koutroumbas, V. Psaraki, “Classification Methods for Random Utility Models with iid Disturbances under the Most Probable Alternative Rule”, *European Journal of Operational Research*, Vol. 176, No. 3, pp. 1778-1794, 2007.
12. K. Koutroumbas, Tsagouri I, Belehaki A., “Time series autoregression technique implemented on-line in DIAS system for ionospheric forecast over Europe”, *Annales Geophysicae*, Vol. 26, No. 2, pp. 371-386, 2008.
13. I. Tsagouri, K. Koutroumbas, A. Belehaki, “Ionospheric *foF2* Forecast Over Europe Based on an Autoregressive Modeling Technique Driven by Solar Wind Parameters”, *Radio Science*, Vol. 44, RS0A35, doi:10.1029/2008RS004112, 2009.
14. K. Koutroumbas, I. Tsagouri, A. Belehaki, “On the Clustering of *foF2* Time Series Corresponding to Disturbed Ionospheric Periods”, *Advances in Space Research*, S.I.: *Space Weather Advances*, 10.1016/j.asr.2010.01.016, 2010.

E. PUBLICATIONS IN CONFERENCE PROCEEDINGS

1. K. Koutroumbas, N. Kalouptsidis, "Convergence analysis of the Hamming Network", *Proc. EUSIPCO '92*.
2. K. Koutroumbas, N. Kalouptsidis, "Nearest Neighbor Pattern Classification Neural Networks", *Proc. World Congress on Computational Intelligence*, pp. 2911-2915, Orlando, Florida, July 1994.
3. K. Koutroumbas, N. Kalouptsidis, "Generalized Hamming Networks", *Proc. EEC '95*.
4. K. Koutroumbas, A. Pouliakis, N., Kalouptsidis, "Divide and Conquer Algorithms for Constructing Neural Network Architectures", *Proc. EUSIPCO '98*.
5. K. Koutroumbas, G. Paliouras, V. Karkaletsis, and C.D. Spyropoulos, “Comparison of Computational Learning Methods on a Diagnostic Cytological Application”, *EUNITE '01*, Tenerife, Spain, 2001.

6. K. Koutroumbas, A. Pouliakis, "A Novel Algorithm for Training RBF networks", *Proc. of SETN02 (Companion volume)*, pp. 283-292, Thessaloniki, Greece.
7. K. Koutroumbas, "Accelerating the Hamming Maxnet", *Proceedings of the 3rd Hellenic Conference on AI, SETN04*, Samos, Greece, pp. 338-347 (companion volume), 2004.
8. I. Keramitsoglou, C. Kontoes, K. Koutroumbas, O. Sykioti, N. Sifakis, "Mapping of forest species and tree density using new Earth observation sensors for wildfire applications", *12th SPIE International Symposium on Remote Sensing*, Bruges, Vol. 5976, Sept. 2005.
9. Tsagouri I., K. Koutroumbas and A. Belehaki, "Assessment and Validation of Ionospheric Forecasting Techniques During Extreme Space Weather Events", *The Second European Space Weather Week*, Estec, Noordwijk, The Netherlands, 14-18 November 2005.
10. K. Koutroumbas, A. Pouliakis, T. M. Megalopoulou, J. Georgoulakis, A. E. Giachnaki, P. Karakitsos, "Discrimination of benign from malignant breast lesions using statistical classifiers", *Proceedings of the 4th Hellenic Conference on AI, SETN06*, Iraklion, Crete, Greece, LNAI 3955, pp. 543-546, 2006.
11. I. Tsagouri, K. Koutroumbas, A. Belehaki, "Ionospheric forecast over Europe based on an autoregressive modeling technique driven by solar wind parameters", *Proceedings of the 12th International Ionospheric Effects Symposium*, Alexandria, VA, USA, 13-15 May, 2008.
12. K. Koutroumbas, "A Hamming Maxnet that Determines all the Maxima", *Proceedings of the 5th Hellenic Conference on AI, SETN08*, Syros, Greece, LNAI 5138, pp. 135-147, 2008.
13. K. Themelis, A. Rontogiannis, K. Koutroumbas, "Semi-supervised Hyperspectral Unmixing via the Weighted Lasso", *Proceedings of the ICASSP 2010*, pp. 1194-1197, 2010.
14. K. Themelis, A. Rontogiannis, O. Sykioti, K. Koutroumbas, I. Dagleis, F. Schmidt, "On the Unmixing of MEX/OMEGA Hyperspectral Data", *European Planetary Science Congress 2010*, Vol. 5, EPSC2010-730, Rome, Italy, 19-24 September, 2010.

15. K. Koutroumbas, Y. Bakopoulos, “On the Approximation Capabilities of Hard Limiter Feedforward Neural Networks”, *Proceedings of the 6th Hellenic Conference on AI, SETN10*, Athens, Greece, LNAI 6040, pp. 163-172, 2010.

CITATION FROM INDEPENDENT RESEARCHERS

At least 2000 citations (most of them are for the book “Pattern Recognition” (all versions)).