

Curriculum Vitae of Dimitris Kugiumtzis

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1 PERSONAL DETAILS

SURNAME: Kugiumtzis
NAME: Dimitris
DATE, PLACE OF BIRTH: 09.08.1965, Thessaloniki, Greece
CITIZENSHIP: Greek, Norwegian
FAMILY STATUS: Married, two children
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CURRENT POSITION: Associate Professor,
Faculty of Technology,
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2 STUDIES

Doktor. Scient. (Ph.D.) in Mathematical Modelling, Department of Informatics, University of Oslo, Norway, receipt of degree: April 1997

Cant. Scient. (M.Sc.) in Mathematical Modelling, Department of Informatics, University of Oslo, Norway, receipt of degree: September 1991

B.Sc., Department of Mathematics, Aristotle University of Thessaloniki, Greece, receipt of degree: July 1987

3 WORK EXPERIENCE

Assistant Professor at the Department of Mathematical, Physical and Computational Sciences, Faculty of Technology, Aristotle University of Thessaloniki, Greece (July 2001 – June 2010)

Lecturer B at the Department of Statistics, University of Glasgow, Scotland, U.K. (January 2000 – June 2001)

Guest Scientist (Post Doc) at the Max-Planck Institute for Physics of Complex Systems, Dresden, Germany (September 1998 – December 1999)

Research Associate at the National Centre for Epilepsy, Norway (March – June 1997)

4 RESEARCH ACTIVITY

4.1 Funded Projects

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Funded project titled "Granger causality and complex networks from multivariate time series", from the program for support of research activity in AUTH 2012, overall budget: 4000 €

Participation in the project "Secure and Revokable Biometric Identification for use in Disparate Intelligence Environments" funded by the General Secretariat for Research and Technology, Greece (4/2011 – 4/2014), Overall Budget: 591365 €

Participation in the EU funded action titled "Advanced Methods For The Estimation Of Human Brain Activity And Connectivity (NEUROMATH)" (28/03/2007 - 23/05/2011).

Coordinator of the thematic network of Aristotle University of Thessaloniki for the Statistical and Dynamical Analysis of Socio-economical Systems (SDASS) (<http://web.auth.gr/sdass>) (2006 – to date), Overall Budget: 8000 €

Coordinator of the research project titled "Linear and Nonlinear Statistical Analysis of Electroencephalograms for the Prediction of Epileptic Seizures" funded by the General Secretariat for Research and Technology, Greece (2006 – 2009), Overall Budget: 88496 €

Participation in the research project Archimedes of the Ministry of Education, Greece, dealing with the building of a data base as well as the statistical analysis of anthropometric, biochemical and diet data of greek athletes (2004 – 2008).

Participation in the RTN/Research Training Network on Deformation and Fracture Instabilities in Novel Materials and Processes/DEFINO (2002 – 2003), HPRN-CT-2002-00198, Overall Budget: 1500000 €

4.2 Organization of Sessions and Conferences

Organization of minisymposium titled "Time Series and Causality Networks" in the International Conference "Dynamic Days", Madrid, Spain, June 2 – 7, 2013.

Organization of the Session "Nonparametrics and Time Series Analysis" in the First Conference of the International Society for NonParametric Statistics (ISNPS), Chalkidiki, Northern Greece, June 15-19, 2012

Organization of the Session "Markov Processes and Time Series" in the International Conference "Markov & semi-Markov Processes & Related Fields", Chalkidiki, Greece, September 20-23, 2011

Organization of the Workshop "Effective Connectivity Analysis of EEG" in the International Conference "Meeting of the Society of Applied Neurosciences", Thessaloniki, Greece, May 5-8, 2011

Participation in the organization of the International Conference Nonlinear Dynamics and Complexity: Theory, Methods and Applications (in honor of Tassos Bountis on the occasion of his 60th birthday), Thessaloniki, Greece, 12 - 16 July 2010.

Organization of a session titled "Nonlinear Analysis of Time Series and Applications" (7 speakers) in The 3rd International Conference on Complex Systems and Applications, Le Havre, France, June 29 – July 2, 2009.

Organization of a session titled "Time Series Analysis" (8 speakers) in the International Conference "Dynamic Days", Loughborough, UK, July 9 – 13, 2007.

Organization of the one-day conference titled "Statistical and Dynamical Analysis of Socio-economical Systems", Thessaloniki, 29 May 2007.

Participation in the organization of the 19th Summer School and Conference titled "Nonlinear Dynamics and Complexity", Thessaloniki, 10 – 22 July 2006.

4.3 Participation in Conferences

Participation with oral presentation in over 40 international conferences and 20 national conferences (some of them as invited speaker).

4.4 Publications

Peer Reviewed International Journals

Sum of times cited without self-citations: 450

h-index: 11

[source ISI: <http://apps.isiknowledge.com>]

For publication

1. A. Papan, **D. Kugiumtzis**, C. Kyrtsoy, "A nonparametric causality test: Detection of direct causal effects in multivariate systems using Corrected Partial Transfer Entropy", Proceedings of the 1st ISNPS Conference, Topics in NonParametric Statistics, eds M. Akritas, S. N. Lahiri, D. Politis, 2013.
2. A. Tsimpiris, **D. Kugiumtzis**, A. Drosou, Ch. Ilioudis, G. Pangalos, D. Tzovaras, "Geometrical Facial Feature Selection for Person Identification", Proceedings of FUSION 2013, Istanbul, 2013.
3. A. Drosou, N. Porfyriou, A. Tsimpiris, **D. Kugiumtzis**, D. Ioannidis, D. Tzovaras, "Dimensionality Reduction for Enhanced 3D Face Recognition", Proceedings of the 4th International Conference on Information, Intelligence, Systems and Applications (IISA2013), Athens, 2013.
4. I. Vlachos, **D. Kugiumtzis**, "Backward-in-Time Selection of the Order of Dynamic Regression Prediction Model", Journal of Forecasting, 2013 [[arxiv: 1301.2410](https://arxiv.org/abs/1301.2410)]

Journals

1. A. Papan, C. Kyrtsoy, **D. Kugiumtzis**, C. Diks, "[Simulation Study of Direct Causality Measures in Multivariate Time Series](#)", Entropy, 15(7), 2635-2661, 2013.
2. **D. Kugiumtzis**, "[Partial Transfer Entropy on Rank Vectors](#)", The European Physical Journal Special Topics, Vol 222, No 2, pp 401-420, 2013
3. D. Kugiumtzis, "[Direct coupling information measure from non-uniform embedding](#)", Physical Review E, Vol 87, 062918, 2013
4. V. K. Kimiskidis, **D. Kugiumtzis**, S. Papagiannopoulos, N. Vlaikidis, "[Transcranial Magnetic Stimulation \(TMS\) Modulates Epileptiform Discharges in Patients with Frontal Lobe Epilepsy: a Preliminary EEG-TMS Study](#)", International Journal of Neural Systems, Vol 23, 1250035, 2013
5. M. Papapetrou, **D. Kugiumtzis**, "[Markov chain order estimation with conditional mutual information](#)", Physica A, Vol 392, 1593-1601, 2012 [[arxiv: 1301.0148](https://arxiv.org/abs/1301.0148)]
6. A. Papan, **D. Kugiumtzis**, P.G. Larsson, "[Detection of Direct Causal Effects and Application in the Analysis of Electroencephalograms from Patients with Epilepsy](#)", International Journal of Bifurcation and Chaos, Vol. 22, No. 9, 1250222, 2012
7. **D. Kugiumtzis**, "[Transfer Entropy on Rank Vectors](#)", Journal of Nonlinear Systems and Applications, Vol 3, No 2, pp 73-81, 2012 [[arxiv:1007.0394](https://arxiv.org/abs/1007.0394)]
8. A. Tsimpiris, I. Vlachos, **D. Kugiumtzis**, "[Nearest neighbor estimate of conditional mutual information in feature selection](#)", Expert Systems with Applications, Vol 39, pp 12697-12708, DOI: 10.1016/j.eswa.2012.05.014, 2012
9. N. Kouvaris, **D. Kugiumtzis**, A. Provata, "[Species mobility induces synchronization in chaotic population dynamics](#)", Physical Review E, Vol 84, 036211, 2011
10. A. Tsimpiris, **D. Kugiumtzis**, "[Feature Selection for Classification of Oscillating Time Series](#)", Expert Systems, DOI: 10.1111/j.1468-0394.2011.00605.x, 2011

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11. J.M. Halley and **D.Kugiumtzis**, "[Nonparametric testing of variability and trend in some climatic records](#)", *Climatic Change*, Vol 109, No 3-4, pp 549-568, 2011
12. T. Vafeiadis, E. Bora-Senta, **D. Kugiumtzis**, "[Estimation of linear trend onset in time series](#)", *Simulation Modelling Practice and Theory*, Vol 19, No 5, pp 1384-1398, 2011
13. A. Papan, **D. Kugiumtzis**, P.G. Larsson, "[Reducing the Bias of Causality Measures](#)", *Physical Review E*, Vol 83, 036207, 2011 [[arxiv:1101.3532](#)]
14. **D. Kugiumtzis**, E. Bora-Senta, "[Gaussian Analysis of Non-Gaussian Time Series](#)", *Brussels Economic Review*, Vol 53, No 2, pp 295-322, 2010.
15. I. Vlachos, **D. Kugiumtzis**, "[Non-uniform state space reconstruction and coupling detection](#)", *Physical Review E*, Vol 82, 016207, 2010 [[arxiv:1007.0394](#)]
16. **D. Kugiumtzis** and E. Bora-Senta, "[Normal correlation coefficient of non-normal variables using piece-wise linear approximation](#)", *Computational Statistics*, Vol 25, No 4, 645-662, DOI: 10.1007/s00180-010-0195-3, 2010
17. **D. Kugiumtzis** and A. Tsimpiris, "[Measures of Analysis of Time Series \(MATS\): A MATLAB Toolkit for Computation of Multiple Measures on Time Series Data Bases](#)", *Journal of Statistical Software*, Vol. 33, Issue 5, 2010
18. N. Kouvaris, A. Provata and **D. Kugiumtzis**, "[Detecting synchronization in coupled stochastic ecosystem networks](#)", *Physica A*, Vol 374, No 4, pp 507 - 515, 2010
19. A. Papan and **D. Kugiumtzis**, "[Evaluation of Mutual Information Estimators for Time Series](#)", *International Journal of Bifurcation and Chaos*, Vol 19, No 12, pp 4197 - 4215, 2009
20. **D. Kugiumtzis**, "[Local Prediction of Turning Points of Oscillating Time Series](#)", *Physical Review E*, Vol 78, 036206, 2008 [[arXiv:0808.0830](#)].
21. A. Papan, **D. Kugiumtzis**, "[Evaluation of mutual information estimators on nonlinear dynamic systems](#)", *Nonlinear Phenomena in Complex Systems*, Vol 11, No 2, pp 225-232, 2008. [[arXiv:0809.2149v1](#)]
22. I. Vlachos, **D. Kugiumtzis**, "[State Space Reconstruction for Multivariate Time Series Prediction](#)", *Nonlinear Phenomena in Complex Systems*, Vol 11, No 2, pp 241-249, 2008. [[arXiv:0809.2220v1](#)]
23. **D. Kugiumtzis**, "[Evaluation of Surrogate and Bootstrap Tests for Nonlinearity in Time Series](#)", *Studies in Nonlinear Dynamics & Econometrics*, Vol 12, No 1, Art No 4, 2008.
24. T. Vafeiadis, E. Bora-Senta and **D. Kugiumtzis**, "[Evaluation of Linear Trend Tests Using Resampling Techniques](#)", *Communications in Statistics - Simulation and Computation*, Vol 37, pp 1-17, 2008.
25. **D. Kugiumtzis**, I. Vlachos, A. Papan and P.G. Larsson, "[Assessment of Measures of Scalar Time Series Analysis in Discriminating Preictal States](#)", *International Journal of Bioelectromagnetism*, Vol 9, No 3, pp 134-145, 2007
26. **D. Kugiumtzis** and A. Provata, "[Statistical analysis of Gene and Intergenic DNA Sequences](#)", *Physica A*, Vol 342, No 3-4, pp 623 -638, 2004 [[arXiv:q-bio/0404024](#)]
27. **D. Kugiumtzis**, A. Kehagias, E. C. Aifantis, and H. Neuhäuser, "[Statistical analysis of the extreme values of stress time series from the Portevin–Le Châtelier effect](#)", *Physical Review E*, Vol 70, No 3, 036110, 2004

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28. **D. Kugiumtzis** and C. Aifantis, "[Statistical analysis for long term correlations in the stress time series of jerky flow](#)", *Journal of Mechanical Behaviour of Materials*, Vol 15, No 3, pp 135-147, 2004 [[arXiv:physics/0405097](#)]
29. **D. Kugiumtzis**, "[Statically Transformed Autoregressive Process and Surrogate Data Test for Nonlinearity](#)", *Physical Review E*, Vol 66, 025201, 2002 [[arXiv:nlin/0110025](#)] [[The algorithm in matlab](#)]
30. **D. Kugiumtzis**, "[On the Reliability of the Surrogate Data Test for Nonlinearity in the Analysis of Noisy Time Series](#)", *International Journal of Bifurcation and Chaos*, Vol. 11, No. 7, pp 1881-1896, 2001.
31. **D. Kugiumtzis**, "[Surrogate Data Test for Nonlinearity Including Non-monotonic Transforms](#)", *Physical Review E*, Vol 62, No 1, pp 25 - 28, 2000. [[The algorithm in matlab](#)]
32. **D. Kugiumtzis**, "[Test Your Surrogate Data before You Test for Nonlinearity](#)", *Physical Review E*, Vol 60, No 3, pp 2808 - 2816, 1999 [[arXiv:physics/9905021](#)]
33. G. P. Pavlos, M. A. Athanasiu, **D. Kugiumtzis**, N. Hantzigeorgiu, A. G. Rigas, and E. T. Sarris, "[Nonlinear analysis of Magnetospheric data. P. I. Geometric characteristics of the AE index time series and comparison with nonlinear surrogate data](#)", *Nonlinear Processes in Geophysics*, Vol 6, pp 51 - 65, 1999.
34. G. P. Pavlos, **D. Kugiumtzis**, M. A. Athanasiu, N. Hantzigeorgiu, D. Diamantidis, and E. T. Sarris, "[Nonlinear analysis of Magnetospheric data. P. II. Dynamical characteristics of the AE index time series and comparison with nonlinear surrogate data](#)", *Nonlinear Processes in Geophysics*, Vol 6, pp 79 - 98, 1999.
35. **D. Kugiumtzis**, O. C. Lingjærde, and N. Christophersen, "[Regularized Local Linear Prediction of Chaotic Time Series](#)", *Physica D*, Vol 112, pp 344 - 360, 1998.
36. **D. Kugiumtzis**, "[Correction of the Correlation Dimension for Noisy Time Series](#)", *International Journal of Bifurcation and Chaos*, Vol 7, No 6, pp 1283 - 1294, 1997.
37. **D. Kugiumtzis**, "[Assessing Different Norms in Non-linear Analysis of Noisy Time Series](#)", *Physica D*, Vol 105, pp 62 - 78, 1997.
38. T. Aasen, **D. Kugiumtzis**, and S.H.G. Nordahl, "[Procedure for Estimating the Correlation Dimension of Optokinetic Nystagmus Signals](#)", *Computers and Biomedical Research*, Vol 30, pp 95 - 116, 1997.
39. **D. Kugiumtzis**, "[State Space Reconstruction Parameters in the Analysis of Chaotic Time Series - the Role of the Time Window Length](#)", *Physica D*, Vol 95, pp 13-28, 1996. [[arXiv:comp-gas/9602002](#)]
40. **D. Kugiumtzis**, B. Lillekjendlie and N. Christophersen, "[Chaotic time series - Part I: Estimation of some invariant properties in state space](#)", *Modeling, Identification and Control*, Vol 15, No 4, pp 205-224, 1994. [[arXiv:chao-dyn/9401004](#)]
41. B. Lillekjendlie, **D. Kugiumtzis** and N. Christophersen, "[Chaotic time series - Part II: System identification and prediction](#)", *Modeling, Identification and Control*, Vol 15, No 4, pp 225-243, 1994. [[arXiv:chao-dyn/9401003](#)]
42. **D. Kugiumtzis** and B. Lillekjendlie, "[Estimation models for kinematic calibration and manipulators with a parallel structure](#)", *Journal of Robotics Research*, Vol 11, No 5, pp 399-410, 1994.

Chapters in Books

1. A. Tsimpiris and **D. Kugiumtzis**, "[EEG features as biomarkers for discrimination of preictal states](#)". In M.P. Pardalos, P. Xanthopoulos, and M. Zervakis, editors, *Data Mining for Biomarker Discovery*, Vol 65 of Springer Optimization and Its Applications, chapter 3, Springer, 31 – 56, 2012.
2. **D. Kugiumtzis**, "[State Space Local Linear Prediction](#)", in "Modelling and Forecasting Financial Data, Techniques of Nonlinear Dynamics", edited by A. Soofi and L. Cao, Kluwer Academic Publishers, 2002, Chp 4, pp 95 - 113.
3. **D. Kugiumtzis**, "[Surrogate Data Test on Time Series](#)", in "Modelling and Forecasting Financial Data, Techniques of Nonlinear Dynamics", edited by A. Soofi and L. Cao, Kluwer Academic Publishers, 2002, Chp 12, pp 267 - 282.

Proceedings of International Conferences

1. A. Pavana, **D. Kugiumtzis**, "[Rendering Statistical Significance of Information Flow Measures](#)", [CHAOS THEORY Modeling, Simulation and Applications](#), Selected Papers from the 3rd Chaotic Modeling and Simulation International Conference (CHAOS2010), Chania, Crete, pp 289-296, 2010
2. **D. Kugiumtzis**, "Entropy-Based Measures of Causality and Application to Epilepsy", Electronic Proceedings of the International Symposium on Nonlinear Theory and Applications (NOLTA2010), Krakow Poland, 2010.
3. A. Pavana, **D. Kugiumtzis** and P.G. Larsson. "[Directed coupling measures for interhemispheric information flow from epileptic EEG](#)". XII Mediterranean Conference on Medical and Biological Engineering and Computing (Medicon 2010), 27-30 May, Porto Carras, Chalkidiki, Greece, 2010.
4. A. Tsimpiris, **D. Kugiumtzis** and P.G. Larsson. "[Discrimination of epileptic pre-ictal states using feature based clustering on EEG](#)". XII Mediterranean Conference on Medical and Biological Engineering and Computing (Medicon 2010), 27-30 May, Porto Carras, Chalkidiki, Greece, 2010.
5. **D. Kugiumtzis**, "[Improvement of symbolic transfer entropy](#)", Electronic Proceedings of The 3rd International Conference on Complex Systems and Applications, Le Havre, France, June 29 – July 2, 2009
6. I. Vlachos and **D. Kugiumtzis**, "[State Space Reconstruction from Multiple Time Series](#)", Topics on Chaotic Systems, Selected Papers from CHAOS 2008 International Conference, 3-6 June, Chania, Crete, pp. 378–387, World Scientific.
7. A. Pavana and **D. Kugiumtzis**, "[Detection of Directionality of Information Transfer in Nonlinear Dynamical Systems](#)", Topics on Chaotic Systems, Selected Papers from CHAOS 2008 International Conference, 3-6 June, Chania, Crete, pp. 251–264, World Scientific.
8. **D. Kugiumtzis**, and I. Vlachos, "Turning Point Prediction of Oscillating Time Series using Local Dynamic Regression Models", Electronic Proceedings of the International Symposium on Nonlinear Theory and Applications (NOLTA2008), Budapest, 2008. [[arXiv:0809.2229v1](#)]
9. **D. Kugiumtzis**, I. Vlachos, A. Pavana and P.G. Larsson, "[Assessment of Measures of Scalar Time Series Analysis in Discriminating Preictal States](#)", NEUROMATH Workgroup meeting and Workshop, Rome 2-4 December, 2007.
10. **D. Kugiumtzis**, A. Pavana, A. Tsimpiris, I. Vlachos and P.G. Larsson, "[Time series feature evaluation in discriminating preictal EEG states](#)", *Lecture Notes in Computer Science*, Vol 4345, pp 298-310, 2006.

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11. A. Tsimpiris and **D. Kugiumtzis**, "[Clustering of Oscillating Dynamical Systems from Time Series Data Bases](#)", Electronic Proceedings of the International Workshop on Knowledge Extraction and Modeling, Capri, Italy, 2006.
12. **D. Kugiumtzis**, E. Bora-Senta, "Gaussian Modelling of Non-Gaussian Time Series", Proceedings of the 18th International Workshop on Statistical Modelling, Leuven, Belgium, July 7 – 11, 2003, Edited by G. Verbeke, G. Molenberghs, M. Aerts, S. Fieuws, Katholieke Universiteit Leuven, 2003, pp 239 - 243.
13. **D. Kugiumtzis**, "Surrogate Data Test for Nonlinearity: A New Approach", *Attractors, Signals and Synergetics, Proceedings of the 1st European Interdisciplinary School on Nonlinear Dynamics for System and Signal Analysis, EUROATTRACTOR 2000, Warsaw, June 6 - 15, 2000*, Edited by W. Klonowski, Pabst Science Publishers, 2002, pp 326 - 337.
14. **D. Kugiumtzis**, "[Complications in Applying the Method of Surrogate Data to EEG](#)", *Proceedings of the 1999 Workshop "Chaos in Brain?"*, World Scientific, Singapore, pp 230 - 233, 2000.
15. **D. Kugiumtzis**, and P. G. Larsson, "[Linear and Nonlinear Analysis of EEG for the Prediction of Epileptic Seizures](#)", *Proceedings of the 1999 Workshop "Chaos in Brain?"*, World Scientific, Singapore, pp 329 - 333, 2000.

Proceedings of National Conferences

1. M. Papapetrou, **D. Kugiumtzis**, "Markov chain order estimation with conditional mutual information", Proceedings of the 24th Greek Statistical Conference, Patras, Greece, 2011 (in greek)
2. E. Siggiridou, **D. Kugiumtzis**, E. Bora-Senta, "Investigation of statistical significance of correlation between time series for the construction of networks", Proceedings of the 24th Greek Statistical Conference, Patras, Greece, 2011 (in greek)
3. A. Papana, **D. Kugiumtzis**, "Detection of direct coupling in multivariate systems", Proceedings of the 24th Greek Statistical Conference, Patras, Greece, 2011 (in greek)
4. Th. Vafeiadis, E. Bora-Senta and **D. Kugiumtzis**, "Detection of the number of linear trend change points and their location in time series", Proceedings of the 22th Greek Statistical Conference, Veria, Greece, pp 68 - 76, 2010 (in greek).
5. A. Tsimpiris and **D. Kugiumtzis**, "Classification of time series with proper feature selection", Proceedings of the 23th Greek Statistical Conference, Veria, Greece, pp 329 - 337, 2010 (in greek).
6. Th. Vafeiadis, E. Bora-Senta and **D. Kugiumtzis**, "Estimation trend onset point in time series", Proceedings of the 22th Greek Statistical Conference, Chania, Greece, pp 55 - 64, 2009 (in greek).
7. M. Papapetrou, G. Tsaklidis, **D. Kugiumtzis**, "Long range correlation in binary Markov chains and in the DNA sequence", Proceedings of the 22th Greek Statistical Conference, Chania, Greece, pp 157 - 166, 2009 (in greek).
8. I. Vlachos and **D. Kugiumtzis**, "[Detection of change of the dynamic regimes in oscillating time series from oscillating characteristics](#)", Proceedings of the 21th Greek Statistical Conference, Samos, Greece, pp 97 - 106, 2008 (in greek).
9. A. Papana and **D. Kugiumtzis**, "[Detection of change of the dynamic regime with information measures](#)", Proceedings of the 21th Greek Statistical Conference, Samos, Greece, pp 249 - 258, 2008 (in greek)

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10. I. Vlachos and **D. Kugiumtzis**, "[Optimization of prediction in multivariate time series with dynamic regression models](#)", Proceedings of the 20th Greek Statistical Conference, Nicosia, Cyprus, pp 121 - 128, 2007 (in greek).
11. A. Papanas and **D. Kugiumtzis**, "[Evaluation of histogram-based estimators of mutual information in time series](#)", Proceedings of the 20th Greek Statistical Conference, Nicosia, Cyprus, pp 329 - 336, 2007 (in greek).
12. Th. Vafeiadis, E. Bora-Senta and **D. Kugiumtzis**, "[Detection of turning point of trend in time series](#)", Proceedings of the 20th Greek Statistical Conference, Nicosia, Cyprus, pp 113 - 120, 2007 (in greek).
13. **D. Kugiumtzis** and E. Bora-Senta, "[Randomization test for system identification on non-Gaussian time series](#)", Proceedings of the 19th Greek Statistical Conference, Kastoria, pp 249 - 256, 2006 (in greek).
14. I. Vlachos and **D. Kugiumtzis**, "[Granger causality and prediction of multivariate time series of oscillating features](#)", Proceedings of the 19th Greek Statistical Conference, Kastoria, pp 147 - 154, 2006 (in greek).
15. A. Papanas and **D. Kugiumtzis**, "[Linear and nonlinear correlation measures of time series for seizure prediction](#)", Proceedings of the 19th Greek Statistical Conference, Kastoria, pp 415 - 423, 2006 (in greek).
16. **D. Kugiumtzis** and E. Bora-Senta, "[Gaussian' Correlation Coefficient of non-Gaussian Variables](#)", Proceedings of the 18th Greek Statistical Conference, Rhodes, pp 191 - 200, 2005 (in greek).
17. A. Papanas and **D. Kugiumtzis**, "[Cumulative Mutual Information Function as a Statistic for the Test for Nonlinearity on Time Series](#)", Proceedings of the 18th Greek Statistical Conference, Rhodes, pp 315 - 325, 2005 (in greek).
18. **D. Kugiumtzis**, "Nonlinear Analysis of Time Series", Proceedings of the 18th Summer School and Greek Conference on Nonlinear Science and Complexity, Volos, pp 319 - 342, 2005 (in greek).
19. **D. Kugiumtzis** and E. Bora-Senta, "Correlation of Non-Gaussian Variables: Application to Marketing Indices", Proceedings of Scientific Congress on Technologies and Marketing, Ierapetra Crete, 19 – 20 May 2005, pp 202 – 210, 2005.
20. **D. Kugiumtzis** and E. Bora-Senta, "[Linear Modeling of Non-Gaussian Time Series by Transformation to Gaussian](#)", Proceedings of the 17th Greek Statistical Conference, Lefkada, pp 243 - 250, 2004 (in greek).
21. **D. Kugiumtzis** and Ath. Kehagias, "Bounded Random Walk of Alternating Direction: a Model for Oscillating Time Series", Proceedings of the 16th Greek Statistical Conference, Kavala, 30 April – 3 May, pp 271, 2003 (in greek).
22. **D. Kugiumtzis**, "Nonlinearity Test with Surrogate Data", Proceedings of the 15th Greek Statistical Conference, Ioannina, 8 – 11 May, pp 363, 2002 (in greek).
23. **D. Kugiumtzis**, E. Aifantis, "Time Series Analysis and the Deterministic Structure of the PLC Effect", *Proceedings of the 6th National Congress of Mechanics, Thessaloniki, 19 - 21 July 2001*, Edited by E.C. Aifantis, A.N. Kounadis, 2001, Vol. III, pp 29 - 34.
24. **D. Kugiumtzis**, "[State Space Reconstruction in the Prediction of Chaotic Time Series with Neural Nets](#)", *Proceedings of the Norwegian Neural Network Symposium*, 1994.

Research Reports

1. **D. Kugiumtzis**, and P. G. Larsson, "[Prediction of Epileptic Seizures with Linear and Nonlinear Analysis of EEG](#)", preprint mpi-pks/9910008
2. **D. Kugiumtzis**, and M. A. Boudourides, "[Chaotic Analysis of Internet Data: Just a Random Number Generator?](#)", contributed paper for the Meeting SOEIS at Bielefeld, March 27 - 28, 1998.
3. **D. Kugiumtzis** and N. Christophersen, "[State space reconstruction: method of delays vs singular spectrum approach](#)", Research Report No 236, 0806-3036, Dept of Informatics, University of Oslo, February 1997.

4.5 Editor / Associate Editor

Guest editor for the Special Session "Advances and Applications in Nonlinear Time Series Methods" of the IEICE's new journal "Nonlinear Theory and Its Applications, IEICE" (to be published April 2013).

Guest editor for the Special Session on "Methodological Advances in Brain Connectivity" of the journal "Computational and Mathematical Methods in Medicine", (to be published May 2012).

Review Editor of Frontiers in Fractal Physiology, since August 2011.

4.6 Referee

Referee for the following journals (totally about 15 papers per year):

frequent referee:

Physics: Physical Review Letters; Physical Review E;

Engineering / Biology / Medicine: IEEE Transaction on Biomedical Engineering; IEEE Transactions on Neural Systems and Rehabilitation Engineering; Annals of Biomedical Engineering;

Infrequent referee:

Physics / Mathematics, Geophysics: Scientific Reports; Physica D; Physica A; Chaos; International Journal of Bifurcation and Chaos; Nonlinearity; Journal of Nonlinear Analysis B – Real World Applications; Applied Mathematical Modelling; Proceedings of the Royal Society A, Mathematical, Physical and Engineering Sciences; Geophysics Letters; Computers & Geosciences;

Engineering / Biology / Neuroscience: IEEE Transactions on Signal Processing; IEEE Transactions on Audio, Speech and Language Processing; Journal of Systems Science and Systems Engineering; Biomedical Signal Processing and Control; Journal of Medical Internet Research; Journal of Neuroscience Methods; Medical Engineering & Physics; International Journal of Neural Systems; Computer Methods and Programs in Biomedicine

Statistics / Informatics / Economics: International Journal of Forecasting; European Journal of Finance; Knowledge and Information Systems

4.7 Evaluator

Evaluator of proposals for the programs of INTAS of EU (2003 – 2007).

Evaluator of proposals for the Marie-Curie Program of EU (2006).

Evaluator of proposals for the Greek research Program "Iraklitos II" (2009).

Evaluator of proposals for national research programs in Greece and Cyprus (2009 - to date).

Evaluator of proposals for the program "Small Grant Scheme 2012 of the Polish-Norwegian Research Programme" (2013)

4.6 Supervision

Main supervisor of 6 PhD (4 obtained, 2 in progress) and member of supervising committee for 4 PhD (2 completed) for the period 2004 – to date.

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Main supervisor of over 20 MSc (8 in progress), and member of the supervising committee of over 20 MSc for the period 2003 – to date. Member of the supervising committee of 3 Cand.Scient (Norwegian MSc) for the period 1995 – 1997.

5. TEACHING EXPERIENCE

Lecturing a number of undergraduate courses on Statistics at the Department of Mathematical, Physical and Computational Sciences, Faculty of Engineering, Aristotle University of Thessaloniki, (October 2001 – to date).

Lecturing postgraduate courses at the Department of Mathematics, the Department of Physics, and the Department of Civil Engineering of the Aristotle University of Thessaloniki (October 2002 – to date).

Lectured undergraduate and postgraduate courses on Statistics at the Department of Statistics and the Department of Computer Science, University of Glasgow, Scotland, U.K. (January 2000 – June 2001).

Lectured postgraduate courses on Dynamics and Times Series at the Department of Informatics, University of Oslo, Norway (1993 – 1997).

Lecturer of Erasmus course “Time series analysis”, University of Galway, Ireland, June 2013.

6. LANGUAGE SKILLS

Greek: Reading fluent, Writing fluent, Speaking fluent

English: Reading fluent, Writing fluent, Speaking fluent

Norwegian: Reading fluent, Writing functional, Speaking fluent