

# Theophilos Papadimitriou, Professor

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Google Scholar: <https://scholar.google.gr/citations?user=2otlX4AAAAJ>  
Scopus: <https://www.scopus.com/authid/detail.uri?authorId=6602905924>  
ResearchGate: [https://www.researchgate.net/profile/Theophilos\\_Papadimitriou](https://www.researchgate.net/profile/Theophilos_Papadimitriou)

## Education

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- 1996–2000 Ph.D. Aristotle University of Thessaloniki, Faculty of Engineering,  
Thesis “Motion Parameters Estimation on an Image Sequence and Application on  
Frame Segmentation”
- 1995–1996 M.Sc. (D.E.A.) University of Nice Sophia-Antipolis,  
Thesis “Study of various Motion Estimation/Segmentation Schemes for Video  
Compression”
- 1990–1995 B.Sc. Mathematics, Aristotle University of Thessaloniki, Faculty of Sciences,  
Department of Mathematics

## Professional Experience

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- 2002–Present Faculty Member (Current Position: Full Professor)  
Department of Economics,  
Democritus University of Thrace
- 2004–2005 Faculty Member (Lecturer under contract)  
Department of Technological Management,  
University of Macedonia.
- 2000–2003 Faculty Member (Lecturer under contract)  
Department of Applied Informatics,  
University of Macedonia.
- 2000–2002 Faculty Member (Lecturer under contract)  
Department of Economics,  
Department University of Thrace.

## Professional Activities

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- **Editorship**
  - Guest Editor of the Special Issue “Machine Learning in Economics and Finance” on Computational Economics (IF 1.741), January 2021.
  - Guest Editor of the Special Issue “Emerging Trends on Energy Economics” on Energy (IF 3.252), 2022.
  - Guest Editor of the Special Issue “Emerging Trends on Energy Economics II” on Energy (IF 3.252), 2024.
- **Invited Talks**
  - “Banking Supervision with the T-MDS: a new methodology for optimization of Economics Networks”, Ross School of Business, University of Michigan, Ann Arbor, 16.11.2015
  - “T-MDS: a new methodology for monitoring Economics networks”, Department of Economics, Temple University, Philadelphia, 18.11.2015
  - “A Complex Network Analysis of the U.S. Gross State Product”, European Central Bank, External Developments Division, 02.02.2016
  - “T-MDS: a New Methodology for Monitoring Banking Networks”, European Central Bank, Macro Financial Linkages Division, 02.02.2016
  - “T-MDS: a new methodology for monitoring Economics networks”, BETA, Faculté de Sciences Economiques et de Gestion, Université de Strasbourg, 22.04.2016
  - “Machine Learning: A gentle introduction”, BETA, Faculté de Sciences Economiques et de Gestion, Université de Strasbourg, 20.11.2018
  - “Assessing the resilience of the U.S. Banking System”, Seminaire Ermees, Faculté de Sciences Economiques et de Gestion, Université de Strasbourg, 23.11.2018
  - “Machine Learning in Economics and Finance”, Faculté de Sciences Economiques et de Gestion, Université de Strasbourg, 9.02.2024
- **Professional Memberships**
  - IEEE Member (1997 – 2017)
  - International Institute of Forecasters (2017 – 2021)
- **Conferences**
  - Financial Chairman, MLSP-2007 (*17th IEEE International Workshop on Machine Learning for Signal Processing*), Thessaloniki, Greece, Aug. 27-29, 2007.
  - 1st International Transport Conference & 15th Special Conference of the Hellenic Operational Research Society, Alexandroupolis, October 15-16, 2015.
  - DSP-2011 (17th International Conference on Digital Signal Processing), Corfu, Greece, Jul. 6-8, 2011.
  - ICANN-2010 (20th International Conference on Artificial Neural Networks), Thessaloniki, Greece, Sep. 15-18, 2010.
  - MLSP-2009 (19th IEEE International Workshop on Machine Learning for Signal Processing), Grenoble, France, Sep. 2-4, 2009.
  - MLSP-2008 (18th IEEE International Workshop on Machine Learning for Signal Processing), Cancun, Mexico, Oct. 16-19, 2008.

- CIP-2008 (IAPR Workshop on Cognitive Information Processing), Santorini, Greece, June 9-10, 2008
- **Reviewer Duties**
  - IEEE Transactions on Circuits and Systems for Video Technology (before 2007)
  - IEEE Transactions on Intelligent Transportation Systems (before 2007)
  - IEEE Transactions on Circuits and Systems I (before 2007)
  - IEEE Transactions on Neural Networks and Learning Systems 2013
  - IEEE Transactions on Neural Networks 2008
  - IEEE Transactions on Image Processing 2007
  - IEEE Transactions on Signal Processing 2010 (2), 2011
  - IEEE Transactions on Knowledge and Data Engineering 2007, 2009
  - IEEE Signal Processing Letters 2009, 2010 (2), 2011
  - The Journal of Signal Processing Systems 2008, 2010
  - Digital Signal Processing 2013
  - Journal of Applied Mathematics 2013
  - Physica A: Statistical Mechanics and its applications 2014, 2015, 2016
  - Economic Notes 2014
  - Energy Economics 2015
  - International Economics 2015
  - Economics Bulletin 2015
  - Operational Research: An International Journal 2015
  - Expert Systems with Applications 2017, 2022
  - Journal of Money, Credit and Banking 2017
  - Journal of Risk Finance 2017
  - Algorithms 2017
  - Computational Economics 2020, 2022, 2025

## **Research Experience**

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<b>2023-2025</b>	<b>Project Member</b> Hellenic Foundation for Research & Innovation “Machine Learning Investment Readiness”, Financed by European Funds
<b>2017-2020</b>	<b>Project Member</b> Interreg “Improving Healthcare Access through a Personal Health Monitoring System”, Financed by European Funds
<b>2017-2020</b>	<b>Project Member</b> Interreg “Joint Water Resources Management System for Long-Term Efficiency”, Financed by European Funds
<b>2016-2018</b>	<b>Project Member</b> Horizon “Promoting Financial Awareness and Stability (PROFIT)”, Financed by European Funds
<b>2012-2015</b>	<b>Project Coordinator</b> Thalis II “Study and Forecasting of Economic Data using Machine Learning Methods”, Financed by European Funds, MIS 380292 (600,000 €).
<b>2010</b>	<b>Project Member</b>

	Project "Study on the Economic and Social Impacts of the project "Burgas-Alexandroupolis pipeline to local communities of the prefecture of Evros", Financed by the Prefecture of Evros.
2006-2007	Project Member TEMPUS Project "COMMERCEDEC - Lifelong Education - Trade and Distribution Professions", in cooperation with the Universities of Grenoble, France and Ekaterinburg, Russia.
2005-2007	Project Member ARCHIMEDES I Project "Advanced methods for blind signal processing and their implementation on a grid"
2004-2007	Project Member ARCHIMEDES I Project " Analysis and copyright protection of multidimensional digital data"
2003-2008	Project Member EPEAEK (Operational Program for Education and Initial Vocational Training) "Reforming Undergraduate Curriculum at the Democritus University of Thrace"
1997-2000	Project Member EPEAEK (Operational Program for Education and Initial Vocational Training) "Reforming Undergraduate Curriculum at the University of Macedonia"

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- **Current Ph.D. students**
    - Athanasios-Fotis Athanasiou
    - Fotios Gatzoglou
    - Giannakis Nikos
  - **Former Ph.D. students**
    - Dr. Manolis Sofianos (2023) Advisor
    - Dr. Kéa Baret (2022 - Université de Strasbourg) Co-Advisor
    - Dr. Anna Agrapetidou (2021) Advisor
    - Dr. Georgios Sarantitis (2017)
    - Dr. Efthimia Chrysanthidou (2015)
    - Dr. Vasilios Plakandaras (2015) Advisor
    - Dr. Markos Zampoglou (2011)
    - Dr. Anna Toubalidou (2010)
  - **Coordinator of more than 50 M.Sc. Dissertations**

## **Administrative Experience**

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2020-today	Director of the Master on Business Administration (MBA), Department of Economics, Democritus University of Thrace
2007-2020	Member of the Post-Graduate Committee, Department of Economics, Democritus University of Thrace.
2014-2020	Member of the University Research Committee, Democritus University of Thrace

## **Teaching Experience**

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<b>2000-today</b>	<b>Informatics 1</b> Undergraduate Course, Department of Economics, Democritus University of Thrace
<b>2001-today</b>	<b>Informatics 2</b> Undergraduate Course, Department of Economics, Democritus University of Thrace
<b>2005-today</b>	<b>Operations Research</b> Undergraduate Course, Department of Economics, Democritus University of Thrace
<b>2006-today</b>	<b>Data Analysis</b> Postgraduate Course, Master on Business Administration, Department of Economics, Democritus University of Thrace.
<b>2007-today</b>	<b>Management and Forecasting</b> Postgraduate Course, Master on Business Administration, Department of Economics, Democritus University of Thrace.
<b>2015-2018</b>	<b>E-Government</b> Postgraduate Course, Master in Local and Regional Development and Administration, Department of Economics, Aristotle University of Thessaloniki.
<b>2010-2013</b>	<b>Management Information Systems</b> Postgraduate Course, Master on Business Administration, Department of Economics, Democritus University of Thrace.
<b>2010-2014</b>	<b>Decision Making Models</b> Undergraduate Course, Department of Economics, Democritus University of Thrace.
<b>2003-2004</b>	<b>Decision Making Theory</b> Undergraduate Course, Department of Economics, Democritus University of Thrace.
<b>2010-2013</b>	<b>Special Subjects of Econometrics</b> Undergraduate Course, Department of Economics, Democritus University of Thrace.
<b>2004-2005</b>	<b>Telecommunications Systems</b> Undergraduate Course, Department of Technological Managements, University of Macedonia.
<b>2000-2003</b>	<b>Introduction to Digital Image Processing</b> Undergraduate Course, Department of Applied Informatics, University of Macedonia.
<b>2002-2003</b>	<b>Introduction to Digital Video Processing</b> Undergraduate Course, Department of Applied Informatics, University of Macedonia.

## Publications

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71	journal papers
64	conference papers
5	book chapters
1911	citations according to google scholar
23	h-index

### Journal Papers

1. E. Sofianos, C. Alexakis, P. Gogas, T. Papadimitriou, Machine learning forecasting in the macroeconomic environment: the case of the US output gap. *Economic Change and Restructuring* 58, 9 (2025). <https://doi.org/10.1007/s10644-024-09849-w>
2. A. Dimitriadou, P. Gogas, T. Papadimitriou, "Tourism and Uncertainty: A Machine Learning Approach", accepted for publication in *Current Issues in Tourism*.
3. F. Gkatzoglou, T. Papadimitriou, P. Gogas, "Fuel Price Networks in the EU", accepted for publication in *Economies*.
4. E. Sofianos, E. Zaganidis, T. Papadimitriou, P. Gogas, "Forecasting East and West Coast Gasoline Prices with Tree-Based Machine Learning Algorithms", 2024, 17, 1296. <https://doi.org/10.3390/en17061296>.
5. T. Poufinas, P. Gogas, T. Papadimitriou, E. Zaganidis, "Machine Learning in Forecasting Motor Insurance Claims", accepted for publication in *Risks*.
6. E. Sofianos, T. Papadimitriou, P. Gogas, "Forecasting Inflation Spikes with Machine Learning", accepted for publication on *Encyclopedia of Monetary Policy, Financial Markets, and Banking*, Elsevier.
7. K. Baret, A. Barbier-Gauchard, T. Papadimitriou, "Forecasting Stability and Growth Pact Compliance using Machine Learning", accepted for publication on *The World Economy*.
8. P. Gogas, T. Papadimitriou, "Emerging Trends in Energy Economics", *Energies*, 15, 5212, 2022.
9. T. Papadimitriou, P. Gogas, F. Gatzoglou, "The convergence evolution in Europe from a complex networks perspective", *Journal of Risk and Financial Management*, 15(10), 457, 2022.
10. T. Papadimitriou, P. Gogas, A.F. Athanasiou, "Forecasting Bitcoin Spikes: a GARCH-SVM approach", *Forecasting*, 4(4), 752-766, 2022.
11. P. Michailidis, A. Dimitriadou, T. Papadimitriou, P. Gogas, "Forecasting Hospital Readmissions with Machine Learning", *Healthcare*, 2022, 10, 981.
12. P. Gogas, T. Papadimitriou, E. Sofianos, "Forecasting Unemployment in the Euro-Area with Machine Learning", *Journal of Forecasting*, 41 (3), 551-566, 2021, <https://doi.org/10.1002/for.2824>
13. D. Mouchtaris, E. Sofianos, P. Gogas, T. Papadimitriou, "Forecasting Natural Gas Spot Prices with Machine Learning", *Energies*, 14, 18, 2021.
14. V. Plakandaras, P. Gogas, T. Papadimitriou, I. Tsamardinos, "Credit Card Fraud Detection with Automated Machine Learning Systems", *Applied Artificial Intelligence*, 36 (1), 2022.
15. E. Sofianos, P. Gogas, T. Papadimitriou, "Mind the Gap: Forecasting Euro-Area Output Gaps with Machine Learning", *Applied Economics Letters*, 29 (19), 2022.

16. T. Papadimitriou, P. Gogas, A. Agrapetidou, "The Resilience of the U.S. Banking System", *International Journal of Finance and Economics*, 27 (3), 2819-2835, 2022.
17. V. Plakandaras, P. Gogas, T. Papadimitriou, E. Doumpou, M. Stefanidou, "Forecasting Credit Ratings of EU Banks", *International Journal of Financial Studies*, 8(3), 2020.
18. P. Gogas, T. Papadimitriou, "Machine Learning in Economics and Finance", *Computational Economics*, 57 (1), 1-4, 2021.
19. V. Plakandaras, P. Gogas, T. Papadimitriou, "Gold against the machine", *Computational Economics*, 57 (1), 5-28, 2021.
20. E. Stathakis, T. Papadimitriou, P. Gogas, "Forecasting Price Spikes in Electricity Markets", *Review of Economic Analysis*, 13 (1), 2021.
21. T. Papadimitriou, P. Gogas, A.F. Athanasiou, "Forecasting S&P 500 Spikes: an SVM approach", *Digital Finance*, 2, 241-258, 2020. <https://doi.org/10.1007/s42521-020-00024-0>.
22. T. Papadimitriou, P. Gogas, F. Gkatzoglou, "The evolution of the Cryptocurrencies Market: A Complex Networks approach", *Journal of Computational and Applied Mathematics*, 2020, Vol. 376, 112831.
23. A. Agrapetidou, P. Charonyktakis, P. Gogas, T. Papadimitriou, I. Tsamardinou, "An AutoML Application to Forecasting Bank Failures", *Applied Economics Letters*, 5-9, 2020.
24. V. Plakandaras, P. Gogas, T. Papadimitriou, R. Gupta, "A re-evaluation of the term spread as a leading indicator", *International Review of Economics and Finance*, 2019, Vol. 64, pp. 476-492.
25. P. Gogas, T. Papadimitriou, E. Sofianos, "Money Neutrality, Monetary Aggregates and Machine Learning", 2019, Vol. 12, 7, *Algorithms*.
26. V. Plakandaras, T. Papadimitriou, P. Gogas, "Forecasting transportation demand in the U.S. market", *Transportation Research Part A: Policy and Practice*, 2019, vol 126, pp. 195-214.
27. V. Plakandaras, P. Gogas, T. Papadimitriou, "The effects of Geopolitical Uncertainty in Forecasting Financial Markets: a Machine Learning Approach", *Algorithms*, 2019, Vol 12, 1.
28. V. Plakandaras, P. Gogas, T. Papadimitriou, "A re-evaluation of the Feldstein-Horioka puzzle in the Eurozone", *Journal of Risk and Control* 2019, 6(1), 19-35.
29. A. Dimitriadou, P. Gogas, T. Papadimitriou, V. Plakandaras, "Oil Market Efficiency under a Machine Learning Perspective", *Forecasting* 2018, 1(1), 157-168.
30. P. Gogas, T. Papadimitriou, A. Agrapetidou, "Forecasting Bank Failures and Stress Testing: a Machine Learning Approach", *International Journal of Forecasting*, Volume 34, Issue 3, pp. 440-455.
31. V. Plakandaras, P. Gogas, R. Gupta, T. Papadimitriou, "Macroeconomic Uncertainty, Growth and Inflation in the Eurozone: A Causal Approach", *Applied Economics Letters*, Vol. 25, 2018, Issue 14, pp. 1029 - 1033.
32. P. Gogas, R. Gupta, S.M. Miller, T. Papadimitriou, G.A. Sarantitis, "Income inequality: A state-by-state complex network analysis", *Physica A*, 483, 2017, 423-437.
33. G.A. Sarantitis, T. Papadimitriou, P. Gogas, "A Network Analysis of the United Kingdom's Consumer Price Index", *Computational Economics*, 2018, vol 51, issue 2, pp. 173-193.
34. G.A. Papakostas, K.I. Diamantaras, T. Papadimitriou, "Parallel Pattern Classification Utilizing GPU-Based Kernelized Slackmin Algorithm", *Journal of Parallel and Distributed Computing*, 2017, vol 99, 90-99.
35. T. Papadimitriou, P. Gogas, V. Plakandaras, "Testing Exchange Rate models in a small Open Economy: an SVR approach", *Bulletin of Applied Economics*, 2016, Vol.2, no. 3, pp. 9-29.

36. K. Goulianas, A. Margaris, I. Refanidis, K. Diamantaras, T. Papadimitriou, "A Back Propagation-Type Neural Network Architecture for Solving the Complete  $n \times n$  Nonlinear Algebraic System of Equations", *Advances in Pure Mathematics*, 2016, 6, 455-480.
37. P. Gogas, T. Papadimitriou, V. Plakandaras, R. Gupta, "The informational content of the term spread in forecasting the U.S. inflation; a nonlinear approach", *Journal of Forecasting*, 36 (2), 109-121, 2017, DOI: 10.1002/for.2417.
38. P. Gogas, T. Papadimitriou, M. Matthaiou, "Banking Supervision using the Threshold-Minimum Dominating Set", *Physica A*, 451, 2016, 23-35.
39. N. Antonakakis, P. Gogas, T. Papadimitriou, G. Sarantitis, "International Business Cycle Synchronization since the 1870s: Evidence from a novel network approach", *Physica A*, 447, 2016, 286-296.
40. T. Papadimitriou, P. Gogas, G. Sarantitis, "Convergence of European Business Cycles: A Complex Networks Approach", *Computational Economics*, Vol. 47, pp. 97-119, 2016.
41. P. Gogas, T. Papadimitriou, E. Chrysanthidou, "Yield Curve Point Triplets in Recession Forecasting", *International Finance*, 18:2, 2015, pp. 207-226.
42. V. Plakandaras, T. Papadimitriou, P. Gogas, "Forecasting daily and monthly exchange rates with machine learning techniques", *Journal of Forecasting*, Vol. 34, no. 7, pp. 560-573, November 2015.
43. V. Plakandaras, P. Gogas, R. Gupta, T. Papadimitriou, "US inflation dynamics on long range data", *Applied Economics*, Vol. 47, no. 36, pp. 3874 - 3890, 2015.
44. I. Pragidis, P. Gogas, V. Plakandaras, T. Papadimitriou, "Fiscal shocks and asymmetric effects: A comparative analysis", *Journal of Economic Asymmetries*, 12 (1), 22-33, 2015.
45. V. Plakandaras, R. Gupta, P. Gogas, T. Papadimitriou, "Forecasting the US real house index", *Economic Modelling*, Vol. 45, pp. 259-267, February 2015.
46. V. Plakandaras, T. Papadimitriou, P. Gogas, K.I. Diamantaras "Market Sentiment and Exchange Rate Directional Forecasting", *Algorithmic Finance*, vol. 4, no. 1-2, pp. 69-79, 2015
47. P. Gogas, T. Papadimitriou, M. Matthaiou, E. Chrysanthidou, "*Yield Curve and Recession Forecasting in a Machine Learning Framework*", *Computational Economics*, Vol. 45, no. 4, pp 635-645, April 2015.
48. P. Gogas, T. Papadimitriou, A. Agrapetidou, "Forecasting Bank Credit Ratings", *Journal of Risk Finance*, Vol. 15, No. 2, 2014, pp. 195-209.
49. T. Papadimitriou, P. Gogas, E. Stathakis, "Forecasting Energy Markets using Support Vector Machines", *Energy Economics*, Vol. 44, pp. 135-142, July 2014.
50. P. Gogas, V. Plakandaras, T. Papadimitriou, "*Public Debt and Private Consumption in OECD countries*", *Journal of Economic Asymmetries*, Vol 11, no. 1, June, 2014, pp. 1-7.
51. A. Margaris, K. Goulianas, K.I. Diamantaras, T. Papadimitriou, "Estimating 2-cycle Fixed Points of Henon Map using Backpropagation Neural Networks", *Mathematical Methods in Applied Sciences*, accepted for publication, vol 38, no 2, pp. 263-273, 2015
52. P. Gogas, T. Papadimitriou, G. Sarantitis, "Testing Purchasing Power Parity theory in a DFA Framework and Rolling Hurst Exponent: the case of 23 OECD Countries", *Applied Financial Economics*, Vol. 23, no 17, pp. 1399-1406, 2013.
53. T. Papadimitriou, P. Gogas, V. Plakandaras, J.C. Mourmouris, "Forecasting the Insolvency of U.S. Banks using Support Vector Machines (SVM) based on Local Learning Feature Selection", *International Journal of Computational Economics and Econometrics*, Vol. 3, No. 1/2, pp. 83-90, 2013.



54. T. Papadimitriou, P. Gogas, B.M. Tabak, "Complex Networks and Banking Systems Supervision", *Physica A*, Vol. 392, pp. 4429-4434, Oct. 2013.
55. P. Gogas, T. Papadimitriou and E. Takli, (2013) "Comparison of simple sum and Divisia monetary aggregates in GDP forecasting: a support vector machines approach", *Economics Bulletin*, Vol. 33, No. 2, pp. 1101-1115, 2013.
56. V. Plakandaras, T. Papadimitriou, and P. Gogas, "Directional forecasting in financial time series using support vector machines: The USD/Euro exchange rate", *Journal of Computational Optimization in Economics and Finance*, 5 (2), 2013.
57. K. I. Diamantaras, G. Vranou, T. Papadimitriou, "Multi-Input Single-Output Nonlinear Blind Separation of Binary Sources", *IEEE Transactions on Signal Processing*, Vol. 61, no. 11, pp. 2866-2873, 2013.
58. E. Chrysanthidou, P. Gogas, and T. Papadimitriou, "Optimum Currency Areas within the US and Canada: A Data Analysis Approach", *Journal of Computational Optimization in Economics and Finance*, 5 (1), 2013.
59. T. Papadimitriou, "Financial Institutions Clustering based on their Financial Statements using Multiple Correspondence Analysis", *Economics and Finance Notes*, Vol. 1, no. 2, pp. 119 - 133, 2012
60. P. Gogas, J.C. Mourmouris, T. Papadimitriou, "Economic Viability and Macroeconomic Impact of the Burgas - Alexandroupolis Pipeline", *International Journal of Engineering Management and Economics*, Vol. 2 No. 1 Feb 2012, pp 37-62.
61. K. I. Diamantaras, T. Papadimitriou, "Blind Deconvolution of Multi-Input Single-Output Systems using the Distribution of Point Distances", *Journal of Signal Processing Systems*, Vol 65, No 3, 525-534, Oct 2011
62. A Toubalidou, T. Papadimitriou, and J.C. Mourmouris, "Unemployment in Greece and Level of Education", *Data Analysis Bulletin*, no. 11, 2010, pp 39-51.
63. M. Zampoglou, T. Papadimitriou, K. I. Diamantaras, "From Low-Level Features to Semantic Classes: Spatial and Temporal Descriptors for Video Indexing", *Journal of Signal Processing Systems*, Vol 61, No 1, 75-83, Oct 2010.
64. A. Markos, G. Menexes, T. Papadimitriou, "Multiple Correspondence Analysis for "Tall" Data Sets", *Intelligent Data Analysis*, Vol. 13, No. 6, 2009, pp. 873-885.
65. K. I. Diamantaras, T. Papadimitriou, "Applying PCA Neural Models for the Blind Separation of Signals", *Neurocomputing*, Vol. 73, Dec. 2009, pp. 3-9.
66. K. I. Diamantaras, T. Papadimitriou, "An Efficient Subspace Method for the Blind Identification of Multichannel FIR Systems", *IEEE Transactions on Signal Processing*, Vol. 56, No. 12, December 2008, pp. 5833-5839.
67. M. Zampoglou, T. Papadimitriou, I. Papadimitriou, "Color based Video Sequences Hierarchical Classification", *Data Analysis Bulletin*, no. 9, 2008, pp 56-68.
68. K. I. Diamantaras, T. Papadimitriou, "Blind Deconvolution of Multi-Input Single-Output Systems with Binary Sources", *IEEE Transactions on Signal Processing*, Vol. 54, No. 10, Oct 2006, pp. 3720-3731.
69. K. I. Diamantaras, T. Papadimitriou, "Subspace-Based Channel Shortening for the Blind Separation of Convulsive Mixtures", *IEEE Transactions on Signal Processing*, Vol. 54, No. 10, Oct 2006, pp. 3669-3677.

70. T. Papadimitriou, K. I. Diamantaras, M. G. Strintzis, M. Roumeliotis, "Video Scene Segmentation using Spatial Contours and 3-D Robust Motion Estimation", *IEEE Transactions on Circuits and Systems for Video Technology*, Vol 14, No 4, Apr 2004, pp 485-497.
71. T. Papadimitriou, K. I. Diamantaras, M. G. Strintzis, M. Roumeliotis, "Robust Estimation of Rigid Body 3-D Motion parameters based on Point Correspondences", *IEEE Transactions on Circuits and Systems for Video Technology*, Vol 10, No 4, June 2000, pp 541-549

### **Conference Papers**

1. Manolis Zaganidis, Periklis Gogas, Theophilos Papadimitriou, "From Data to Insight: Using Unsupervised Learning to Explore Financial and Sustainability Patterns in S&P500 Firms" 10th Conference on Economics of Natural Resources and the Environment", 6,7 December, 2024, Volos, Greece.
2. Vasilios Plakandaras, Theophilos Papadimitriou, Periklis Gogas, "Forecasting transportation demand for the U.S. market", 16th Conference of the International Federation of Classification Societies, 27-29 August 2019, Thessaloniki, Greece.
3. Emmanouil Sofianos, Theophilos Papadimitriou, Periklis Gogas, "Money neutrality, monetary aggregates and machine learning", 16th Conference of the International Federation of Classification Societies, 27-29 August 2019, Thessaloniki, Greece.
4. Athanasios-Fotios Athanasiou, Theophilos Papadimitriou, Periklis Gogas, "Forecasting S&P 500 spikes: an SVM approach", 16th Conference of the International Federation of Classification Societies, 27-29 August 2019, Thessaloniki, Greece.
5. Anna Agrapetidou, Theophilos Papadimitriou, Periklis Gogas, "Assessing the resilience of the U.S. banking system", 16th Conference of the International Federation of Classification Societies, 27-29 August 2019, Thessaloniki, Greece.
6. Athanasios-Fotios Athanasiou, Emmanouil Sofianos, Theophilos Papadimitriou, Periklis Gogas, «Forecasting electricity prices in Nord Pool», 8th National Conference of the Financial Engineering and Banking Society, 18-19 December 2017, Athens
7. Emmanouil Sofianos, Athanasios-Fotios Athanasiou, Periklis Gogas, Theophilos Papadimitriou, «Directional forecast of WTI price with the SVM method», National Conference of the Financial Engineering and Banking Society, 18-19 December 2017, Athens
8. Periklis Gogas, Theophilos Papadimitriou, Dimitrios Karagkiozis, "The Fama 3 and Fama 5 factor models under a Machine Learning framework", International Conference on Business & Economics of the Hellenic Open University, Athens, 21-22 April, 2017.
9. Anna Agrapetidou, Theophilos Papadimitriou, Periklis Gogas, "Forecasting bank failures using Support Vector Machines", 12th Augustin Cournot Doctoral Days, Strasbourg, Γαλλία, 16-17 Απριλίου 2015.
10. Vasilios Plakandaras, Theophilos Papadimitriou, Periklis Gogas, "Forecasting transportation demand in the domestic U.S. market", presented in the 15th Special Conference of the Hellenic Operational Research Society, Alexandroupoli, 15-16 October 2015.
11. Theophilos Papadimitriou, Periklis Gogas, Georgios Sarantitis, "Optimization in Transportation: an application on the US airport network using Graph Theory", presented in the 15th Special Conference of the Hellenic Operational Research Society, Alexandroupoli, 15-16 October 2015.

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