

## CURRICULUM VITAE

### 1. PERSONAL DETAILS

Last Name: KYRTSOU  
First Name: Catherine (Aikaterini)  
Father's Name: Kostantinos  
Office Address: University of Macedonia, Department of Economics,  
Office 504, Egnatia str., 156, 54006, Thessaloniki,  
GREECE.  
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### 2. STUDIES

Sept. 1992-Sept. 1995: Graduate of University of Macedonia,  
Department of Economics, Thessaloniki,  
Greece.  
Sept. 1996-Sept. 1997: DEA de Microéconomie et de Calcul  
Economique, University of Montpellier I,  
Department of Economics, France.  
Oct. 1997-Feb. 2002: PhD Thesis: «Hétérogénéité et chaos  
stochastique dans les marchés boursiers»  
(Heterogeneity and stochastic chaos in stock  
markets). University of Montpellier I,  
Department of Economics, LAMETA. Supervisor:  
Prof. M. Terraza. Members of Thesis  
Committee: Prof. Bisière C., (University of  
Perpignan), prof. Clark E., (Middlesex  
University), prof. Péguin A., (CNRS,  
University of Aix-Marseille), prof. Rousseau  
J-M., (University of Montpellier I).  
Defence: 21 February 2002. Nomination for  
best thesis award 2002 and publication  
grant. Grade: Très honorable avec  
félicitations du jury à l'unanimité (Highly  
Honorable with the Unanimous Praise of the  
Jury).  
Languages: French, English, and Greek.

### 3a. POSITIONS

- Feb. 2002-today: *Associate Researcher* with the team of Prof. Terraza CNRS Laboratory LAMETA, Department of Economics, University of Montpellier I.
- Dec. 2003-Oct.2008: *Lecturer* at the University of Macedonia, Department of Economics, Thessaloniki, Greece.
- Nov. 2008-June 2013: *Assistant Professor* at the University of Macedonia, Department of Economics, Thessaloniki, Greece.
- July 2013-today: *Associate Professor* at the University of Macedonia, Department of Economics, Thessaloniki, Greece.
- Oct. 2005-today: *Visiting Professor* at the Hellenic Open University.
- Oct. 2013-today: *Visiting Professor* at the International Hellenic University.
- Oct. 2010-today: *Associate Researcher* at BETA, University of Strasbourg.
- Dec. 2011-today: *Associate Researcher* at EconomiX, University of Paris 10.
- June 2008: *Invited Professor* at the Department of Economics, University of Montpellier I, LAMETA.
- Jan. 2007-Dec.2010: *Scientific Expert*, University of Luxembourg.
- June 2006-today: *Editorial Board* of *Cliometrica* (Springer Verlag).
- Sept. 2007-today: *Associate Editor* of the *Brussels Economic Review* (Editions Dulbea).
- Jan. 2010-today: *Associate Member* of the Institut des Systèmes Complexes de Paris, Ile-de-France.
- Oct. 2010-today: *Member* of the Euro Area Business Cycle Network.
- Jan. 2013-today: *Member* of the Complex Systems and Applications group (COSA) of the National Centre of Scientific Sciences "Demokritos" in Athens.
- Jan. 2010-today: *Associate Editor* of the *International Review of Financial Analysis* (Elsevier).
- Aug. 2010-today: *Associate Editor* of the *European Journal of Finance* (Taylor and Francis).
- March 2012- today: *Editorial Board* of the *Annals of Financial Economics*, (World Scientific).

- Jan. 2013-today: Associate Editor of the *Journal of Economic Asymmetries*, (Elsevier).
- Jan. 2013-today: Guest Associate Editor of the *International Journal of Bifurcation and Chaos*, (World Scientific).
- Nov. 2013-today: Editorial Board of the *Journal of Behavioral and Experimental Finance* (Elsevier).
- Sept. 2011-today: Economic Consultant for the Gerson Lehrman Group.

### **3b. DISTINCTIONS/RECOGNITIONS**

- Listed in the special *25<sup>th</sup> Silver Anniversary Edition* of Marquis **Who's Who in the World**, (2008, 2009).
- Listed in the special *10<sup>th</sup> Anniversary Edition* of Marquis **Who's Who in Science and Engineering**, (2008, 2011-2012).
- Listed in the **Who's Who of the Complex Systems Society**, (2010, 2011).
- Named on the list of **2000 Outstanding Intellectuals of the 21<sup>st</sup> Century**.
- Research grant attributed by the Research Committee of the University of Macedonia acknowledging distinguished publications (2010, 2011, 2012).
- H-index:12, G-index:20, 476 citations (source: Harzing's Publish or Perish).
- High rated Professor, based on the Under-and Postgraduate students' evaluations at the University of Macedonia and Hellenic Open University.
- Granted the "Excellence in Peer Review" award from the journal *Chaos, Solitons and Fractals*, January 2013.
- The test of Hristu-Varsakelis and Kyrtsov (2008) has been included in the new Econometric Package "Model Maker" widely used in the fields of genomic, proteomic and neuroscience research.

[http://www.thecromwellworkshop.com/TCW App/Data/Sites/1/articles/r\\_article v1.pdf](http://www.thecromwellworkshop.com/TCW App/Data/Sites/1/articles/r_article v1.pdf)

#### **4. RESEARCH INTERESTS**

Capital and money markets, monetary policy, applied econometrics, financial instability and crises, behavioural finance, interest rate dynamics, economic complexity and policy, agent-based approaches, commodity markets.

#### **5. TEACHING**

##### **a. Graduate Level (Master).**

1. Application of nonlinear methods in Money and Capital Markets, DEA Analyse Economique, Modélisation et Quantification, University of Montpellier I, 1998-1999.
2. Noise reduction methods and applications in Money and Capital Markets, DEA Analyse Economique, Modélisation et Quantification, University of Montpellier I, 1999-2000.
3. Investors' behaviour in Financial Markets and their role in asset price formation, DEA Analyse Economique, Modélisation et Quantification, University of Montpellier I, 2000-2001.
4. Stochastic chaos and applications in Financial Markets, DEA Analyse Economique, Modélisation et Quantification, University of Montpellier I, 2000-2001.
5. *Financial Markets*, Master in Economics of the Department of Economics, University of Macedonia, 1<sup>st</sup> Semester, 2003-2004, 2004-2005.
6. *Topics in Financial Market Analysis*, Master in Economics of the Department of Economics, University of Macedonia, 3<sup>rd</sup> Semester, 2003-2004, 2004-2005, 2005-2006.
7. *Corporate Finance*, Master in Economics of the Department of Economics, University of Macedonia, 3<sup>rd</sup> Semester, 2005-2006.
8. *Money and Capital Market Analysis*, Master in Economics of the Department of Economics, University of Macedonia, 2<sup>nd</sup> Semester, 2006-today (both lectures and laboratory courses).
9. *Macroeconomics II*, Master in Economics of the Department of Economics, University of Macedonia, 3<sup>rd</sup> Semester, 2006-2007.
10. *Bank Strategy*, Master in Banking of the Hellenic Open University, 2005-today.

11. *Financial Instability and Investors' Behaviour*, MBA and MBA Executive, University of Macedonia, 3<sup>rd</sup> Semester, 2010-today (both lectures and laboratory courses).
12. *Financial Trading*, Master in Information Systems, University of Macedonia, 1<sup>st</sup> Semester, 2010-today (both lectures and laboratory courses).
13. *Foundations of Finance*, Master in Banking and Finance, International Hellenic University, 1<sup>st</sup> Semester, 2013-today.

**b. Undergraduate Level.**

1. *Econometrics II*, Department of Economics, University of Macedonia, Thessaloniki, 5<sup>th</sup> Semester, 2003-2004, 2004-2005, 2005-2006, 2006-2007, 2010-2011 (both lectures and laboratory courses).
2. *Macroeconomics II*, Department of Economics, University of Macedonia, Thessaloniki, 4<sup>th</sup> semester, 2011-today.
3. *Domestic and Foreign Capital Markets*, Department of Economics, University of Macedonia, Thessaloniki, 5<sup>th</sup> and 7<sup>th</sup> Semester, 2007-2010.
4. *Money Capital Markets*, in English and French for the ERASMUS students (2008-2011) and in English for both ERASMUS and Greek students (2011-today), Department of Economics, University of Macedonia, Thessaloniki (both lectures and laboratory courses).
5. *Monetary Theory and Policy*, Department of Economics, Aristotle University of Thessaloniki, 2010-2011.

**6. SCIENTIFIC WORK**

**I. Monographs.**

1. *Hétérogénéité et chaos stochastique dans les marchés boursiers*, University of Montpellier I, Department of Economics, LAMETA, 2002 (PhD Thesis).
2. *Tests de non linéarité et détection du chaos dans les marchés financiers*, University of Montpellier I, Department of Economics, LAMETA, 1997 (DEA).

## **II. Books**

1. *Progress in Financial Market Research*, collective volume, July 2012, New York: Nova Science Publishers (in collaboration with Vorlow C.).
2. *New Trends in Macroeconomics*, September 2005, Springer Verlag - Bestseller- (in collaboration with Professor C. Diebolt, Research Director in CNRS, BETA, Université Louis Pasteur de Strasbourg).

## **III. Guest Editor in Special Issues**

1. *Special Issue "Non-linear Macroeconomic Dynamics" Journal of Macroeconomics*, 2006, in collaboration with Prof. T. Palivos.
2. *Special Issue "Energy Sector Pricing and Macroeconomic Dynamics" Energy Economics*, 2009, in collaboration with Prof. A.G. Malliaris.
3. *Special Issue "Non-linear Financial Analysis" Brussels Economic Review*, 2010.
4. *Special Issue "New Facets of Economic Complexity in Modern Financial Markets" European Journal of Finance*, in collaboration with Prof. D. Sornette, 2013.
5. *Special Issue "Comovement and Contagion in Financial Markets" International Review of Financial Analysis*, in collaboration with Profs V., Mignon and S. Tokpavi, forthcoming 2014.

## **IV. Peer-Reviewed Publications in Collective Volumes, Scientific Journals and Proceedings.**

1. Kyrtsov, C., and Terraza, V., (2000): Volatility behaviour in emerging markets: A case study of the Athens Stock Exchange, using daily and intra-daily data, *European Research Studies Journal*, Vol.3 (3-4), pp. 3-16.
2. Kyrtsov, C., and Diebolt, C., (2001): A survey on cycles and chaos (Part I), *Historical Social Research. An International Journal for the Application of Formal Methods to History*, vol. 26 (4).
3. Kyrtsov, C., and Terraza, M., (2002): L'effet du bruit dans les données à haute fréquence: le cas de la série boursière d'Athènes, *Collection Logiques Economiques*, Editions Harmattan, Paris.

4. Kyrtsou, C., and Terraza, M., (2002): Stochastic chaos or ARCH effects in stock series? A comparative study, *International Review of Financial Analysis*, Vol.11 (4), pp. 407-431.
5. Kyrtsou, C., and Diebolt, C., (2002): A survey on cycles and chaos (Part II), *Historical Social Research. An International Journal for the Application of Formal Methods to History*, vol. 27 (2/3).
6. Kyrtsou, C., and Terraza, M., (2003): It is possible to study chaotic and ARCH behaviour jointly? Application of a noisy Mackey-Glass equation in the Paris Stock Exchange returns series, *Computational Economics*, vol.21, pp. 257-276.
7. Kyrtsou, C., and Terraza, V., (2003): Evidence for mixed non-linearity in daily stock exchange series, *Political Economy*, vol. 13, pp. 71-99.
8. Kyrtsou, C., Labys, W., and Terraza, M., (2004): Noisy chaotic dynamics in commodity markets, *Empirical Economics*, vol. 29, pp. 489-502.
9. The previous publication (item 8) is also appeared in the book "Modeling and Forecasting Primary Commodity Prices" edited by Walter Labys with foreword by C.W.J. Granger.
10. Kyrtsou, C., (2005): Evidence for neglected linearity in noisy chaotic models, *International Journal of Bifurcation and Chaos*, vol. 15 (10), pp. 3391-3394.
11. Kyrtsou, C., and Vorlow, C., (2005): Complex dynamics in macroeconomics: a novel approach, *New Trends in Macroeconomics*, Diebolt C., and Kyrtsou C., (eds), Springer Verlag, pp.223-238.
12. Kyrtsou, C., and Labys, W., (2006): Evidence for chaotic dependences between US inflation and commodity prices, *Journal of Macroeconomics*, vol. 28, (1), pp. 256-266. High-ranking publication (10/25 TOP HOTTEST ARTICLES, January-March 2006).
13. Kyrtsou, C., and Serletis, A., (2006): Univariate tests for non-linear structure, *Journal of Macroeconomics*, vol. 28 (1), pp. 154-168. High-ranking publication (3/25 TOP HOTTEST ARTICLES, January-March 2006).
14. Kyrtsou, C., Leontitsis A., and Siriopoulos C., (2006): Exploring the impact of calendar effects on the dynamic structure and forecasts of financial time series, *International*

- Journal of Applied and Theoretical Finance*, vol. 9 (1), pp. 1-22  
(One of the 5 most popular articles of the journal).
15. Kyrtsou, C., and Labys, W., (2007): Detecting Positive Feedback in Multivariate Time Series: The Case of Metal Prices and US Inflation, *Physica A*, vol.377 (1), pp. 227-229.
  16. Karagianni, S., and Kyrtsou, C., (2007): Evidence for nonlinear causality between prices and fundamental value in an artificial market framework, in *Essays in Economic Theory*, E. Drandakis, D. Glycopantis and G. Stamatis (eds), in honor of Professor Theofanis Benos, Kritiki Publisher, pp. 201-208.
  17. Hristu-Varsakelis, D., and Kyrtsou, C., (2008): Evidence for nonlinear asymmetric causality in US inflation, metal and stock returns, *Discrete Dynamics in Nature and Society*, doi:10.1155/2008/138547.
  18. Kyrtsou, C., (2008): Nonlinear features of commodity prices comovements, in *Commodity Modeling and Pricing*, Schaeffer, P.V. (ed.), Wiley and Sons, New York, pp.52-64.
  19. Kyrtsou, C., (2008): Re-examining the sources of heteroskedasticity: The paradigm of noisy chaotic models, *Physica A*, vol. 387 (27), pp. 6785-6789.
  20. Kyrtsou, C., and Malliaris A., (2009): The impact of information signals on market prices, when agents have non-linear trading rules, *Economic Modelling*, vol. 26 (1), pp. 167-176.
  21. Kyrtsou, C., and Vorlow, C., (2009): Modelling nonlinear comovements between time series, *Journal of Macroeconomics*, vol. 30 (2), pp. 200-211. High-ranking publication (8/25 TOP HOTTEST ARTICLES, January-March 2009).
  22. Kyrtsou, C., Malliaris, A., and Serletis, A., (2009): Energy sector pricing: On the role of neglected nonlinearity, *Energy Economics*, vol. 31 (3), pp. 492-502. High-ranking publication (13/25 TOP HOTTEST ARTICLES, April-June 2009).
  23. Hristu-Varsakelis, D., and Kyrtsou, C., (2010): Testing for Granger causality in the presence of chaotic dynamics, *Brussels Economic Review*, 2010, vol. 53(2); pp. 323-327.
  24. Kyrtsou, C., and Terraza M., (2010): Seasonal Mackey-Glass-GARCH process and short-term predictability, *Empirical Economics*, vol. 38(2), pp. 325-345.



25. Karagianni, S., and Kyrtsou, C., (2011): Analysing the dynamics between US inflation and Dow Jones index using nonlinear methods, *Studies in Nonlinear Dynamics and Econometrics*, vol. 15(2), article 4. High-ranking publication (1<sup>st</sup> most popular paper by the end of July 2011).
26. Karanasos, M., and Kyrtsou, C., (2011): Analyzing the link between stock volatility and volume by a Mackey-Glass GARCH-type model: the case of Korea, *Quantitative and Qualitative Analysis in Social Sciences*, vol. 5 (1), pp. 49-69.
27. Papana, A., Kyrtsou, C., Kugiumtzis, D., and Diks, C., (2013): Simulation study of direct causality measures in multivariate time series, *Entropy*, 15(7), pp. 2635-2661, doi:10.3390/e15072635.
28. Kollias, C., Kyrtsou, C., and Papadamou, S., (2013): Security shocks and oil prices-stock indices relationship, *Energy Economics*, vol. 40, pp. 743-752.
29. Papana, A., Kyrtsou, C., and Kugiumtzis, D., (2014): A nonparametric causality test: Detection of direct causal effects in multivariate systems using Corrected Partial Transfer Entropy, *Proceedings of 1st International Conference of Society of Non-Parametric Statistics (ISNPS)*, 15-19 June 2012, Chalkidiki, Greece (forthcoming).
30. Papana A., Kyrtsou, C., Kugiumtzis, D. and Diks, D., (2014): Comparison of resampling techniques for non-causality hypothesis, *Proceedings of the 7<sup>th</sup> International Workshop on Simulations*, 21-25 May 2013, Rimini, Italy (forthcoming).

**V. Editorial Introductions, published Working Papers and Discussions.**

1. Kyrtsou, C., and Palivos, T., (2006): Nonlinear Macroeconomic Dynamics, *Journal of Macroeconomics*, vol. 28 (1), pp.1-4.
2. Kyrtsou, C., and Malliaris A., (2009): Energy Sector Pricing and Nonlinear Macroeconomics, *Energy Economics*, vol. 31 (6), pp.825-826.
3. Kyrtsou, C., (2010): Nonlinear Financial Analysis, *Brussels Economic Review*, vol. 53(2), pp.165-167.
4. Kollias, C., Kyrtsou, C., and Papadamou, S., (2011): The effects of terrorism and war on the oil prices-stock indices

relationship, *Economics of Security Working Paper 57*, Berlin: Economics of Security.

5. Kyrtsou, C., and Sornette, D., (2013): New Facets of the Economic Complexity in Modern Financial Markets, *European Journal of Finance*, vol.15 (5), pp.337-449.
6. Diks, C., Kugiumtzis, D., Kyrtsou, C., Papana, A., (2013): Partial Symbolic Transfer Entropy, *CeNDEF Working paper 13-16*, University of Amsterdam.
7. Kyrtsou, C., (2013): Discussion on "Specific Markov-Switching Behaviour for ARMA Parameters", 12<sup>th</sup> Annual Financial Econometrics Conference, 11 December, 2013, Paris.

#### **VI. Papers Accepted subject to revisions**

1. Kyrtsou, C., (2011): On the role of complexity in economic time series: New evidence for the crude oil and gasoline price series relationship, *Energy Economics*.
2. Kyrtsou, C., (2011): Don't bleach highly complex data: A multivariate study, *Studies in Nonlinear Dynamics and Econometrics*.
3. Karagianni, S., Kyrtsou, C., and Saraidaris, (2011): Structural change and stock returns dynamics in the Athens Stock Exchange, *Physica A*.

#### **VII. New submissions**

1. Kyrtsou, C., Nicolaou, A., Vogiatzoglou, M., (2011): F-Vine copula: Profiting from asset price heterogeneity to estimate systematic risk.
2. Kyrtsou, C., and Leontitsis, A., (2011): Calendar-corrected surrogates and short-term trading: implications for stock market dynamics.

#### **VIII. International Conferences and Workshops.**

1. Testing for nonlinearity in commodity prices: determinism or stochasticity?, GAMMAP International Conference *Dynamique des Prix et des Marchés de Matières Premières*, Grenoble, France, November 1998 (in collaboration with Labys W., and Terraza M.).

2. Determinism versus stochasticity in emerging capital markets: a note, International Conference *Forecasting Financial Markets*, London, May 1998 (in collaboration with Terraza M.).
3. Evidence for nonlinearity in small european capital markets, AEA International Conference *Forecasting Emerging Financial Markets*, Paris, June 1998 (in collaboration with Terraza M.).
4. L'effet du bruit dans les données à haute fréquence: le cas de la série boursière d'Athènes, International Conference *Théorisation du Long Terme et Dépassement des Phases Dépressives*, Montpellier, France, September 1999 (in collaboration with Terraza M.).
5. Stochastic chaos or ARCH effects in stock series? A comparative study, SEFI International Conference *Complex Behaviour in Economics*, Aix-en-Provence, France, May 2000 (in collaboration with Terraza M.).
6. It is possible to study chaotic and ARCH behaviour jointly? Application of a noisy Mackey-Glass equation in the Paris Stock Exchange returns series, SCE International Conference, *Computing in Economics and Finance*, Barcelona, July 2000 (in collaboration with Terraza M.).
7. Value at Risk, Outliers and Chaotic Dynamics, International Conference *Forecasting Financial Markets*, Paris, June, 2004 (in collaboration with Terraza V.).
8. Surrogates data analysis and stochastic chaotic modelling: application to stock exchange returns series, SCE International Conference *Computing in Economics and Finance*, Amsterdam, July 2004 (in collaboration with Antoniou A. and Vorlow C.).
9. VaR Non-linéaire Chaotique: Application à la Série des Rentabilités de l'Indice NIKKEI, AEA International Conference *Econometrics of Stock Markets: Analysis and Prediction*, Paris, April, 2004 and AFFI International Conference, Cergy-Pontoise, France, June, 2004 (in collaboration with Terraza V.).
10. Analyzing the link between stock volatility and volume by a Mackey-Glass GARCH-type model: the case of Korea, *Global Finance Conference*, June 2005, Trinity College Dublin, Ireland (in collaboration with Karanasos M.).

11. Value-at-Risk, outliers and chaotic dynamics, *3<sup>rd</sup> International Conference on Computational Finance and its Applications*, May 2008, Cadiz, Spain (in collaboration with Terraza V.).
12. Effects of tax policy announcements in the Athens stock exchange, *International Conference on Economic Modelling*, 7-10 July, 2010, Istanbul (in collaboration with Karagianni S. and A. Saraidaris).
13. Security Shocks and Oil Prices - Stock Indices Relationship, Terrorism and Policy Conference, University of Texas at Dallas, Sponsored by the Center for Global Collective Action, May 2011 (in collaboration with Kollias C., and Papadamou S.).
14. A nonparametric causality test: Detection of direct causal effects in multivariate systems using Corrected Partial Transfer Entropy, *1st International Conference of Society of Non-Parametric Statistics (ISNPS)*, 15-19 June 2012, Chalkidiki, Greece (in collaboration with Papana, A., and Kugiumtzis, D.,).
15. Partial Symbolic Transfer Entropy, *6th CSDA International Conference on Computational and Financial Econometrics (CFE'12)*, 1-3 December 2012, Oviedo, Spain (in collaboration with Papana, A., Kugiumtzis, D., and Diks, C.,).
16. Neglected Nonlinearity and Risk Premium Dynamics in the U.S. market, *11<sup>th</sup> Biennial Conference of Athenian Policy Forum*, July 2012, Chalkidiki, Greece (in collaboration with Mikropoulou C. and Mikropoulou V.).
17. On the Causes of the Stock Index-Crude Oil Returns Interdependences: A Copula-based Approach, *11<sup>th</sup> Biennial Conference of Athenian Policy Forum*, July 2012, Chalkidiki (in collaboration with Mikropoulou C. and Vogiatzoglou M.).
18. Does the SP500 index mirror the crude oil dynamics? A complexity-based approach, *Finance and energy issues*, 1<sup>st</sup> March 2013, Paris, France and 8<sup>th</sup> BMRC-QASS Conference on Macro and Financial Economics, 24<sup>th</sup> May, 2013, Brunel University, London (in collaboration with Mikropoulou C. and Papana A.).
19. Comparison of resampling significance tests for Granger causality, *7th International Workshop on Simulation*, May 21-25, 2013 - Alma Mater Studiorum University of Bologna, Rimini, Italy (in collaboration with Papana, A., Kugiumtzis, D., and Diks, C.,).

20. Investigating causal relationships—application to financial time series, *Dynamics Days*, 3-7 June 2013, Madrid, Spain (in collaboration with Papana, A., Kugiumtzis, D., και Diks, C.,).
21. Further insights on the connectivity between money supply and interest rates, *5th International Symposium on Recurrence Plots*, Loyola University Chicago, 14-16 August 2013, US (in collaboration with Papana, A., and Vorlow, C.,).
22. Informational content of Monday returns and the role of dynamic invariants, *5th International Symposium on Recurrence Plots*, Loyola University Chicago, 14-16 August 2013, US (in collaboration with Malliaris, A., and Mikropoulou, C.,).
23. Diversity, Uncertainty and Stock Market Dynamics, 2<sup>nd</sup> International Conference on Econophysics, 13-14 September, 2013, Kavala, Greece (in collaboration with Mikropoulou, C.,).
24. Dynamic Analysis of the US Short- and Long-Term Interest Rates Relationships: On the Role of Monetary Policy, *European Conference on Complex Systems*, 16-21 September, 2013, Barcelona, Spain (in collaboration with Malliaris, A., and Mikropoulou, C.,).
25. Diversity, Uncertainty and Stock Market Dynamics, *12<sup>th</sup> Annual Financial Econometrics Conference*, 11 December, 2013, Paris (in collaboration with Mikropoulou, C.,).
26. Identifying causal relationships in the case of non-stationary time series, *7<sup>th</sup> CSDA International Conference on Computational and Financial Econometrics (CFE 2013)* 14-16 December 2013, Senate House, University of London, UK (in collaboration with Papana, A., Kugiumtzis, D., and Diks, C.,).

#### **IX. Working Papers and Unpublished Manuscripts**

1. Evidence for non-linearity in daily stock exchange series, LAMETA University of Montpellier I, 2001, (in collaboration with Terraza V.).
2. Testing for non-linearity in metal prices: deterministic chaos or stochasticity?, *Working Paper n°2001-04*, LAMETA, University of Montpellier I, 2001 (in collaboration with Labys W., and Terraza M.).
3. High-dimensional chaos, endogenous volatility and interacting agents in stock markets, *Working Paper n°2001-29*, LAMETA,

- University of Montpellier I, 2001 (in collaboration with Terraza M.).
4. Heterogeneity and chaotic dynamics in commodity markets, *Working Paper n°2001-07*, West Virginia University, Morgantown, USA, 2001 (in collaboration with Labys W., Terraza M.).
  5. Misleading properties for a noisy chaotic model, *Working Paper n°2002-01*, LAMETA, University of Montpellier I, 2002 (in collaboration with Terraza M.).
  6. Prise en compte du comportement des investisseurs dans la modélisation de la saisonnalité des indices boursiers, *Working Paper*, LAMETA, University of Montpellier I, 2005 (in collaboration with Terraza M.).
  7. Heterogeneous non-linear trading rules and routes to chaotic dynamics, *Working Paper*, LAMETA, University of Montpellier I, 2005.
  8. Nonlinear Perspectives for Population and Output Dynamics: New Evidence for Cliometrics, *Mimeo*, University Louis-Pasteur Strasbourg, France, Unpublished Manuscript, 2010 (in collaboration with Diebolt C.).

#### **X. Invited Lectures/Guest Speaker**

1. SDAKOS Workshop, Aristotle University, Thessaloniki, May, 2007.
2. Athens University of Economics and Business, Department of Statistics, Athens, October 2007.
3. University of Montpellier I, Department of Economics, October 2007.
4. Festschrift Symposium for Walter C. Labys, Agricultural and Resource Economics, West Virginia University, May 2007.
5. University of Thessaly, Department of Economics, Volos, December 2007 and October 2008.
6. University of Crete, Department of Economics, Rethymno, February 2008.
7. Workshop on Nonlinear Dynamics, University of Thessaly, Department of Economics, Volos, April 2008.
8. University of Macedonia, general and executive MBA, Thessaloniki, 2009-2012.

9. Summer School on Stochastic Finance, Athens University of Economics and Business and University of Aegean, Athens, July 2010.
10. Summer School on Stochastic Finance, Athens University of Economics and Business and University of Aegean, Nafplio, July 2011.
11. University of Strasbourg, BETA Laboratory, April 2012.
12. International Hellenic University, February 2014.

## **7. OTHER SCIENTIFIC ACTIVITIES**

### **I. Project Evaluator**

- US National Science Foundation

### **II. Referee in International Journals and Conferences**

- *Journal of Business and Economic Statistics, Journal of Economic Dynamics and Control, Journal of Banking and Finance, Quantitative Finance, Empirical Economics, Economic Inquiry, Macroeconomic Dynamics, Mathematics and Computers in Simulation, Review of Futures Markets, Economic Modelling, Finance, Journal of Economic Behaviour and Organization, Studies in Nonlinear Dynamics and Econometrics, Journal of Macroeconomics, Energy Policy, Energy Economics, International Review of Financial Analysis, Physica A, Chaos Solitons and Fractals, Chaos, Discrete Dynamics in Nature and Society, Discrete and Continuous Dynamical System-B, Economics, International Review of Economics and Finance, Applied Economics, Computational Statistics and Data Analysis, Brussels Economic Review, Journal of Systemics, Cybernetics and Informatics.*
- Journals of the World Scientific and Engineering Academy and Society.
- Referee in the World Multiconference on Systemics, Cybernetics and Informatics, 2003-today, Orlando, Florida, US.

### **III. Book Reviewer**

Routledge

#### IV. Contributions in Newspapers

1. The theory of endogenous instability, *Nautemporiki*, 11<sup>th</sup> February 2009 (in Greek).
2. Endogenous procyclicality, *Nautemporiki*, 17<sup>th</sup> December 2009 (in Greek).
3. The puzzle of short-selling, *Invertor's World*, 19<sup>th</sup>-20<sup>th</sup> December 2009 (in Greek).
4. The real dimensions of complexity, *Invertor's World*, 21<sup>st</sup>-22<sup>nd</sup> August 2010 (in Greek).
5. The crisis of public debt and its particularities, *Invertor's World*, 15<sup>th</sup>-16<sup>th</sup> January, 2011 (in Greek).
6. The Greek debt: Between Scylla and Charybdis, *New Europe*, 3<sup>rd</sup>-9<sup>th</sup> July 2011. <http://69.65.104.130/~neurope/943/943.pdf>
7. Don't blame the markets, *New Europe*, 14<sup>th</sup>-20<sup>th</sup> November 2011 (in collaboration with Professor A.G. Malliaris).  
<http://www.neurope.eu/article/dont-blame-markets>
8. Austerity Policy in Greece: Attempting Incorrect Resuscitation Techniques on a Tachycardic Economy, *New Europe*, June, 2012 (in collaboration with Mikropoulou, C.,)  
<http://www.neurope.eu/blog/austerity-policy-greece-attempting-incorrect-resuscitation-techniques-tachycardic-economy>
9. European Sovereign Crisis and Economic Policy, *VIMA*, July, 2012 (in Greek).  
<http://www.tovima.gr/opinions/useropinions/article/?aid=466207>
10. The "hard" solution: is it an alternative scenario? *VIMA*, July, 2012 (in Greek).  
<http://www.tovima.gr/opinions/article/?aid=468350>

#### V. Member of Scientific Committees in International Conferences

1. **Chairman** of the 2<sup>nd</sup> WSEAS International Conference on Nonlinear Analysis, Nonlinear Systems, and Chaos, Dec. 2003, Athens.
2. All *WSEAS* conferences on Applied Mathematics Chaos Theory and Financial Applications.
3. All *IASTED* International Conferences on Financial Engineering & Applications.
4. 82<sup>nd</sup> *AEA* International Conference "Econometrics of Emerging Countries", Nov., 2003, Toledo, Spain.



5. All *IASTED* International Conferences on Modelling, Identification, and Control.
6. All *IASTED* International Conferences on Modelling and Simulation.
7. *AEA* International Conference "Econometrics of Stock Markets: Analysis and Prediction", April 2004, Paris.
8. All *IASTED* International Conferences on Alliances, Mergers and Acquisitions.
9. All *IASTED* International Conference on Applied Simulation and Modelling.
10. All *IASTED* International Conference on Nonlinear Systems and Chaos.
11. *AEA* International Conference on Exchange Rate Econometrics, Luxembourg, April 2005.
12. *AEA* International Conference on Risk Econometrics, Athens Sept. 2006.
13. *IASTED* International Conference on Modern Nonlinear Theory (Bifurcation and Chaos), Montreal, Canada, May 2007.
14. *AEA* International Conference on Exchange Rate Econometrics, Paris, March, 2009.

#### **VI. Supervising until January 2013.**

- *Undergraduate*: 13 Theses.
- *Graduate*: 19 Theses (Master in Economics), 20 Theses (MBA), 36 Theses (Master in Banking).
- *Post-Doc (funded by the General Secretariat for Research and Technology-GSRT)*:  
Title: Development of multivariate causality measures for the detection of direct causal effects - application to macro economic and financial time series (starting year: 2012).  
Student: Angeliki Papanas.  
Collaborator: Prof. Cees Diks (University of Amsterdam).
- PhD:  
Title: Dynamic instability and the interplay between the macroeconomic and financial spheres (starting year: 2012).  
Student: Christine Mikropoulou

**VII. Scientific Responsible (SR) /External Member (EM) in European co-funded Projects.**

- SR in "Interregional Cooperation at Scientific Computing in Interdisciplinary Science" 2012-2014".
- SR in "Multivariate Causality Measures: Development of multivariate causality measures for the detection of direct causal effects POST-DOC SHI {2935-Multivariate Causality Measures" 2012-2015.
- EM in "EUSECON-A New Agenda for European Security Economics (FP7-SEC-2007-1) FP7-COOPERATION 218105".