PAPANA ANGELIKI

ASSISTANT PROFESSOR

DEPARTMENT OF ECONOMICS

ARISTOTLE UNIVERSITY OF THESSALONIKI

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LinkedIn: https://www.linkedin.com/in/angeliki-papana-01252527/

Google Scholar: https://scholar.google.gr/citations?user=VK21BSAAAAAJ&hl=en

ResearchGate: https://www.researchgate.net/profile/Angeliki-Papana

Studies

2009 PhD

General Department of Polytechnic School, Aristotle University of Thessaloniki. Title: Nonlinear Statistical Analysis of Biological Time Series.

2003 BSc.

Department of Mathematics, Aristotle University of Thessaloniki

Research Interests

Econometrics, time series, information theory, connectivity and Granger causality, Stationarity & Cointegration, Monte Carlo simulations & surrogate data, resampling techniques, complex networks, dynamical systems & chaos, descriptive and inferential statistics.

Academic Positions

27/06/2025 – today   **Assistant Professor**, Department of Economics, Aristotle University of Thessaloniki

Teaching & Working Experience

2022   **Adjunct Lecturer**, Department of Mathematics, Aristotle University of Thessaloniki, Greece. Teaching: Stochastic Strategies (Spring Semester)

2021   **Adjunct Lecturer**, Department of Mathematics, Aristotle University of Thessaloniki, Greece. Teaching: Stochastic Strategies (Spring Semester)

2020   **Statistical Analyst**, part-time research collaboration with Professor Anestis Fotiadis, Professor in University of Zayed, United Arab Emirates in bankruptcy prediction problems.

2018–2020	**Adjunct Lecturer**, Department of Mathematics, Aristotle University of Thessaloniki, Greece. Teaching: "Stochastic Strategies" and "Time Series Analysis".
2017–2018	**Adjunct Lecturer**, Aristotle University of Thessaloniki, Polytechnic School, School of Spatial Planning and Development. Teaching "Econometrics" (Theory and lab: Eviews, spring semester).
2013–2015	**Statistical Analyst**, part-time research collaboration with Professor Igor Rudan, Chair in International Health and Molecular Medicine, University of Edinburgh.
2009-2012	**Adjunct Lecturer** in the Alexander Technological Institute of Thessaloniki, Greece.
	Department of Logistics. Teaching "Mathematics for Economics" and "Statistical and Quantitative Data Analysis" (Theory and lab).
2011-2012	**Instructor** of Mathematics in High School students at the Private Educational Institute 'Iliaskos'.
2010-2011	**Instructor** and **Consultant** of Statistics for the course entitled "Statistical Data Processing (SPSS)". Teaching and consulting in intensive statistical seminars for graduate medical students and doctors.
2010-2011	**Adjunct Lecturer** in Technological Institute of Serres, Greece.
	Department of Business Administration. Teaching "Mathematics for Management and Business Administration".
2009-2010	**Adjunct Lecturer** in the Technological Institute of Kavala.
	Departments of Accounting, Business Management and General Department of Science. Teaching "Mathematics for Economics", "Introduction in Statistics of Business", "Mathematica" (lab).
2009	**Teaching assistant** in Statistics' courses, Polytechnic School, Aristotle University of Thessaloniki, Greece (4 months contract).

Research Experience

11/2018 – 8/ 2021	**Postdoctoral Researcher / Principal Investigator.** Title of project «**Merging complex financial interactions with portfolio construction techniques**». Host Institution: Department of Economics, University of Macedonia, Thessaloniki, Greece. This project has received funding from the Hellenic Foundation for Research and Innovation (HFRI) and the General Secretariat for Research and Technology (GSRT), under grant agreement No 794.
3/2012 – 6/2015	**Postdoctoral Researcher.** Title of project: **Development of multivariate causality measures for the detection of direct causal effects – applications to macroeconomic and financial time series**. Host institution for the 2 first years: Department of Quantitative Economics, Faculty of Economics and Econometrics, University of Amsterdam, The Netherlands.

Host institution for the 3rd year of the project: Department of Economics, University of Macedonia, Thessaloniki, Greece. Collaboration with Professor Catherine Kyrtsou, Department of Economics, University of Macedonia, Thessaloniki, Greece and Professor Cees Diks, Center for Nonlinear Dynamics in Economics and Finance (CeNDEF), Faculty of Economics and Business, University of Amsterdam, The Netherlands. The research project was implemented within the framework of the Action «Supporting Postdoctoral Researchers» of the Operational Program "Education and Lifelong Learning" (Action's Beneficiary: General Secretariat for Research and Technology) and is co-financed by the European Social Fund (ESF) and the Greek State.

12/2005- 12/2008 **Researcher.** Participant in the research project titled "**Linear and Nonlinear Statistical Analysis of electroencephalograms for the Prediction of Epileptic Seizures**" funded jointly by the General Secretariat for Research and Technology, Greece and the National Epileptic Center of Norway. Collaboration with the Professor Dimitri Kugiumtzis and with Doctor Påal Larsson, Department of Neurology, Oslo University Hospital, Norway.

Publications

A. PhD Thesis

Papana A. *Nonlinear statistical analysis of biological time series*, Aristotle University of Thessaloniki, General Department of School of Engineering, Department of Statistics and Information Systems, 2009.

B. Book Chapter

Papana A. (2013). *Short-Term Time Series Prediction for a Logistics Outsourcing Company*. In D. Folinas (Ed.), Outsourcing Management for Supply Chain Operations and Logistics Service (pp. 150-160). Hershey, PA: Business Science Reference. doi:10.4018/978-1-4666-2008-7.ch009, 2013.

C. Peer-Reviewed International Journals

1. Papana A., Kyrtsou C., Kugiumtzis D., Cees D. Identification of causal relationships in non-stationary time series with an information measure: Evidence for simulated and financial data, *Empirical Economics*, 64(3), 1399–1420, 2023.

2. Voultsos P., **Papana A.**, Alexandri S., Zymvragou C.-E. Transgender attitudes and beliefs scale-Greek (TABS-Gr) version: Translation and initial evaluation of psychometric properties among medical students. *BMC Medical Education*, 23(1), 704, 2023.

3. Voultsos P., Tsiantou D., Chatzinikolaou F., **Papana A.**, Deliligka A. (2023). Ageism among dentists who are facebook users in Greece, *Cuadernos de Bioetica: Revista Oficial de la Asociacion Espanola de Bioetica y Etica Medica*, 34(110), 51-71, 2023.

4. Voultsos P., Chatzinikolaou F., **Papana A.**, Deliliga A. Reliability of Greek version of the Toronto empathy questionnaire in medical students and associations with sociodemographic and lifestyle factors, *BMC Psychology*, 10 (1), 1-17, 2022.

5. **Papana A**. Connectivity analysis for multivariate time series: correlation vs. causality, *Entropy*, 23(12), 1570, 2021.

6. **Papana A.**, Siggiridou E. and D. Kugiumtzis. Detecting direct causality in multivariate time series: A comparative study. Communications in Nonlinear Science and Numerical Simulation, 9: 105797, 2021.

7. **Papana A.** and A. Spyridou. Bankruptcy Prediction: The Case of the Greek Market. Forecasting, 2(4): 505-525, 2020.

8. **Papana A.**, Papana-Dagiasis A. and E. Siggiridou. Shortcomings of transfer entropy and partial transfer entropy: Extending them to escape the curse of dimensionality, International Journal of Bifurcation and Chaos, 30(16): 2050250, 2020.A. Papana. Non-uniform embedding scheme and low-dimensional approximation methods for causality detection. *Entropy,* 22(7): 745, 2020.

9. Kyrtsou C., Mikropoulou C. and **A. Papana.** Exploitation of information as trading characteristic: a causality-based analysis of simulated and financial data, Entropy, 22(10): 1139, 2020.

10. A. Papana. Non-uniform embedding scheme and low-dimensional approximation methods for causality detection. Entropy, 22(7): 745, 2020.

11. Kugiumtzis D., Kyrtsou C. and **A. Papana.** Further Insights on the Relationship Between SP500, VIX and Volume: A New Asymmetric Causality Test. *The European Journal of Finance*, 25(15), 1402-1419, 2019.

12. Cavicchioli M., **Papana A.**, Papana Dagiasis A. and B. Pistoresi. On the determinants of central bank independence using random forest methods, *Journal of Modern Applied Statistical Methods*, 17(2), eP2611, 2018.

13. **Papana A.**, Kyrtsou C., Kugiumtzis D. and D. Cees. Financial networks based on Granger causality: A case study, *Physica A: Statistical Mechanics and its Applications*, 482, 65–73, 2017.

14. **Papana A.**, Kyrtsou C., Kugiumtzis D. and D. Cees. Assessment of resampling methods for causality testing: A note on the US inflation behaviour, *PLoS One,* 12 (7), e0180852, 2017.

15. Kyrtsou C., Mikropoulou C. and **A. Papana**. Does the S&P500 index lead the crude oil dynamics? A complexity-based approach, *Energy Economics*, 56, 239-246, 2016.

16. **Papana A.**, Kyrtsou C., Kugiumtzis D. and D. Cees. Detecting causality in non-stationary time series using partial symbolic transfer entropy: Evidence in financial data, *Computational Economics*, DOI: 10.1007/s10614-015-9491-x, 2015.

17. Rudan I., Sidhu S., **Papana A.**, et al. Prevalence of rheumatoid arthritis in low- and middle-income countries: A systematic review and analysis, *Journal of Global Health*, 5(1), 010409, 2015.

18. Adeloye D., Chua S., Lee C., Basquill C, **Papana A.**, et al. Global and regional estimates of COPD prevalence: Systematic review and meta-analysis. *Journal of Global Health*, 5(2), 020415, 2015.

19. Adeloye D., Basquill C., **Papana A.**, Chan K.Y., Rudan I. and H. Campbell. An estimate of the prevalence of COPD in Africa: A systematic analysis, *COPD: Journal of Chronic Obstructive Pulmonary Disease,* 12(1), 71–81, 2015.

20. Kokki I., **Papana A.,** Campbell H. and E. Theodoratou. Estimating the incidence of colorectal cancer in South-East Asia, *Croatian Medical Journal*, 54(6), 532-540, 2013.

21. Papana A., Kyrtsou C., Kugiumtzis D. and D. Cees. Simulation Study of Direct Causality Measures in Multivariate Time Series. *Entropy*, 15 (7), 2635-2661, 2013.

22. Papana A., Kugiumtzis D. and P.G. Larsson. Detection of Direct Causal Effects and Application to Epileptic Electroencephalograms analysis. *International Journal of Bifurcation and Chaos*, 22(9), 1250222, 2012.

23. Papana A., Kugiumtzis D. and P.G. Larsson. Reducing the bias of causality measures. *Physical Review E*, 83 (3), 036207, 2011.

24. Papana A., Papana A., Dagiasis M., Folinas D. and E. Diamantopoulos. Examination of the Interrelation among the Price of the Fuel, the Cost of Transport Freight and the Profit Margin. *Operations and Supply Chain Management*, 4 (2), p. 85-89, 2011.

25. Papana A. and D. Kugiumtzis. Evaluation of Mutual Information Estimators for Time Series. *International Journal Bifurcation and Chaos*, 19 (12), p. 4197-4215, 2009.

26. Papana A. and D. Kugiumtzis. Evaluation of Mutual Information Estimators on Nonlinear Dynamic Systems. *Nonlinear Phenomena in Complex Systems*, 11 (2), p. 225-232, 2008.

27. Kugiumtzis D., Vlachos I., **Papana A.** and P.G. Larsson. Assessment of Measures of Scalar Time Series Analysis in Discriminating Preictal States. *International Journal of Bioelectromagnetism*, 9 (3), p. 134-145, 2007.

28. Kugiumtzis D., **Papana A.,** Tsimpiris A., Vlachos I. and P.G. Larsson. Time Series Feature Evaluation in discriminating Preictal EEG States. *Lecture Notes in Computer Science*, 4345, p. 298-310, 2006.

D. Proceedings of International Conferences (peer-reviewed)

1. Papana A., Kyrtsou C., Kugiumtzis D. and C. Diks. *Comparison of resampling techniques for non-causality hypothesis*, Topics in Statistical Simulation: Research papers from the 7th International Workshop on Statistical Simulation (Springer Proceedings in Mathematics and Simulations), 114, 419-430, Rimini, Italy, 2014.

2. Papana A., Kugiumtzis D. and C. Kyrtsou. *A non-parametric causality test: Detection of direct causal effects in multivariate systems using corrected partial transfer entropy*, Topics in Nonparametric Statistics: Proceedings of the 1rst Conference of the International Society for Nonparametric Statistics (Springer Proceedings in Mathematics & Statistics), 74, 197-206, Chalkidiki, Greece, 2014.

3. Papana A., Papana A., Dagiasis M., Folinas D. and E. Diamantopoulos. *Examination of the interrelation among the price of the fuel, the cost of transport freight and the profit margin*. 1st International Conference on Supply Chain, 1-2 October, Katerini, Greece, 2010.

4. Papana A., Kugiumtzis D. and P.G. Larsson. *Directed coupling measures for interhemisheric 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.

5. Papana A. and 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 (CHAOS 2010), Chania, Crete, p. 289 – 296, 2010.

6. Papana A. 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, p. 251-264, World Scientific.

7. Kugiumtzis D., Vlachos I., **Papana A.** 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.

E. Proceedings of National Conferences (peer-reviewed, in Greek)

1. Papana A. and C. Kyrtsou. *Assessment of statistical significance of causality measures,* Proceedings of 27th Greek Statistical Conference, Thessaloniki, p. 216-225, 2014.

2. Papana A. and D. Kugiumtzis. *Detection of direct causal effects in multivariate systems.* Proceedings of 24th Greek Statistical Conference, Patra, 27 April – 1 May, p. 254-261, 2011.

3. Papana A. and D. Kugiumtzis. *Dynamical change detection of systems using information measures*. Proceedings of 21st Greek Statistical Conference, Karlovasi, Samos, 30 April-4 May, p. 249-258, 2008.

4. Papana A. and D. Kugiumtzis. *Evaluation of histogram-based estimators of mutual information in time series*. Proceedings of the 20th Greek Statistical Conference, Nicosia, Cyprus, p. 329-336, 2007.

5. Papana A. and D. Kugiumtzis. *Linear and nonlinear correlation measures of time series for seizure prediction*. Proceedings of the 19th Greek Statistical Conference, Kastoria, p. 415 - 423, 2006.

6. Papana A. 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, Greece, p. 315-325, 2005.

F. Participation in International and National Conferences

1. Kyrtsou C., Mikropoulou C., Papana A. *Asymmetric patterns in Energy Market under conditions on uncertainty: An advanced Transfer Entropy approach*. XLV Dynamics Days Europe, 23-27 June, Thessaloniki, 2025.

2. Kyrtsou C., Mikropoulou C. and **A. Papana**. Nonlinear connectivity as a driver of time-horizon heterogeneity. Conference on Applied Stochastic Models and Data Analysis, 1-4 June, Athens, 2021.

3. Papana A. and E. Siggiridou. Identifying Causal Relationships Based on Information Theory - Facing the Curse of the Large Dimension. 32nd Panhellenic Statistical Conference, 30 May – 1-June, Thessaloniki, 2019.

4. Siggiridou E. and **A. Papana**. Direct Granger causality using variable selection and dimension reduction techniques. 32nd Panhellenic Statistical Conference, 30 May – 1-June, Thessaloniki, 2019.

5. Kyrtsou, C. Mikropoulou, **A. Papana**. Addressing the «curse of dimensionality» when testing for Granger causality. Application to a set of financial assets. Conference on Complex Systems, 23-28 September, Thessaloniki, 2018.

6. Papana A., Kyrtsou C., Kugiumtzis D., Diks C. Financial networks based on short-term Granger causality tests. TIMESERIES 2015, 21-22 May, Vienna, Austria, 2015.

7. Papana A. *Investigating causal relationships – application to financial time series.* Invited Speaker in the Department of Economics, University of Modena and Reggio E., Italy, November 24, 2015.

8. **Papana A.** *Financial networks based on short-term Granger causality indicators.* Conference entitled «Multivariate Causality Measures and Applications in Macroeconomic and Financial Time Series», University of Macedonia, Thessaloniki, May 14, 2015.

9. Papana A., Kyrtsou C., Kugiumtzis D., Diks C. Time series resampling for causality testing. Eleventh International Conference on Monte Carlo and Quasi-Monte Carlo Methods in Scientific Computing, 6-11 April, Leuven, Belgium, 2014.

*10.*Kugiumtzis D., Kyrtsou C. and **A. Papana**. *Further insights on the asymmetric causality between the SP500 and VIX indexes,* The 12th Biennial Athenian Policy Forum Conference, on Economic and Financial Asymmetries, National Debts and Government Policies, Toronto, Canada, June 13-14, 2014.

11.Papana A., Kyrtsou C., Kugiumtzis D. and C. Diks. *Identifying causal relationships in case of non-stationary time series*, Oral talk in the 7th International Conference on Computational and Financial Econometrics (CFE 2013), University of London, UK, December 14-16, 2013.

12. Kyrtsou C., **Papana A.** and C. Vorlow. *Further insights on the connectivity between money supply and interest rates,* 5th International Recurrence Plot symposium, Loyola University Chicago, USA, August 14-16, 2013.

13.Papana A., Kyrtsou C., Kugiumtzis D. and C. Diks. *Investigating causal relationships – application to financial time series*. 33th International Conference Dynamics Days Europe, Madrid, Spain, June 3-7, 2013.

14. Kyrtsou C., Mikropoulou C. and **A. Papana**. *Does the SP500 index lead the crude oil dynamics? A complexity-based approach*. 8th BMRC-QASS Conference on Macro and Financial Economics, London, UK, 24 May, 2013.

15. Kyrtsou C., Mikropoulou C. and **A. Papana**. *Does the S&P500 index mirror the crude oil dynamics? A complexity-based approach*. International Symposium on Energy and Finance Issues, Paris, France, March 1, 2013.

16.Papana A., Kyrtsou C., Kugiumtzis D. and C. Diks. *Partial Symbolic Transfer Entropy*. 6th International Conference on Computational and Financial Econometrics, Oviedo, Spain, December 1-3, 2012.

17.Papana A., Folinas D. and A. Fotiadis. *Forecasting the consumption and the purchase of a drug*. Oral talk in the 2nd International Conference on Supply Chain, Katerini, Greece, October 4-5, 2012.

18. Kyrtsou C., Mikropoulou C. and **A. Papana**. *Causality test between inflation and Athens Stock Exchange index: Policy Proposals*. Proceedings of 25th Greek Statistical Conference, Volos, Greece, April 18-22, 2012.

19. Papana A., Kugiumtzis D. and P.G. Larsson. *Detection of Direct Causal Effects among Parts of the Brain of Epileptic Patients.* International Conference of Nonlinear Dynamics and Complexity: Theory, Methods and Applications in honour of Tassos Bountis on the occasion of his 60th birthday, Thessaloniki, 12-16 July, 2010 (poster).

20. Kugiumtzis D., Vlachos I., **Papana A.** and P.G. Larsson. *Search for Optimal Time Series Measures to Discriminate Preictal States*. 4th International Workshop on Seizure Prediction, 3-7 June, Kansas, USA, 2009 (poster).

21. Papana A. and D. Kugiumtzis. Evaluation of Mutual Information Estimators on Nonlinear Dynamical Systems. 20th Conference and Summer School on «Non-Linear Science and Complexity», 19-29 July, Patra, 2007 (poster).

22. Papana A. and D. Kugiumtzis. *Discrimination of states of dynamical systems using measures of correlation*. 19th Conference and Summer School on «Complexity and Nonlinear Dynamics», 10-22 July, Thessaloniki, 2006 (poster).

23. Papana A. and D. Kugiumtzis. *Statistical Detection of Dynamical Changes of Systems*. 17th Conference and Summer School on «Complexity in Science and Society», 14-26 July, Patra and Ancient Olympia, 2004 (poster).

G. Working papers

1. Cavicchioli M., **Papana A.**, Papana Dagiasis A. and B. Pistoresi. *Determinants of Central Bank Independence: a Random Forest Approach*. Working Paper No. 122, Department of Economics Marco Biagi, University of Modena and Reggio E., 2016.

2. **Papana A.**, Kyrtsou C., Kugiumtzis D. and C. Diks. *Identifying causal relationships in case of non-stationary time series*. CeNDEF Working Paper No. 14-09, University of Amsterdam, 2014.

3. **Papana A.**, Kyrtsou C., Kugiumtzis, D. and C. Diks. *Assessment of resampling methods for causality testing*. CeNDEF Working Paper; No. 14-08, University of Amsterdam, 2014.

4. **Papana A.**, Kyrtsou C., Kugiumtzis D. and C. Diks. *Partial Symbolic Transfer Entropy*. CeNDEF Working paper No. 13-16, University of Amsterdam, 2013.

Honors and awards

1997   Fellowship from National Institution of owned Scholarships.

Languages

1998   Certificate of Proficiency in English, University of Cambridge.

1996   Zeugnis Zentrale Mittelstufenprufung, Goethe Institute.

Seminars - Training

2020 Certificate of completing the online course 'Learning to Teach Online', Coursera.

2020 Certificate of completing the online course 'Teaching Assistant (Short Course)', eLearning College.

2005 Seminars in the framework of the PENED program in matters of research methodology, research and innovation management, evaluation of technology, exploitation of S&T knowledge and its integration in the process of economic and social development.

Academic & Administrative Activities

- **Guest Editor**, Special Issue: " **Innovative Methods in Financial Modeling: From Econometrics to Entropy**", Mathematics (EISSN 2227-7390, Impact Factor: 2.2)

  https://www.mdpi.com/journal/mathematics/special_issues/047ZM488G6

- **Guest Editor**, Special Issue: "Granger Causality and Transfer Entropy for Financial Networks", Entropy journal (ISSN 1099-4300, Impact Factor: 2.494)

  https://www.mdpi.com/journal/entropy/special_issues/financial_networks

- **Guest Editor**, Special Issue: "Information Theory and Economic Network", Entropy journal (ISSN 1099-4300, Impact Factor: 2.494)

  https://www.mdpi.com/journal/entropy/special_issues/economic_network

- Review Editor in:

  - ✓ Frontiers in Physiology (Impact Factor: 4.134)

    https://www.frontiersin.org/journals/physiology

  - ✓ Frontiers in Bioengineering and Biotechnology (Impact Factor: 4.21)

    https://www.frontiersin.org/journals/bioengineering-and-biotechnology

  - ✓ Frontiers in Network Physiology, section Information Theory

    https://www.frontiersin.org/journals/network-physiology

- Responsible for organizing the scientific conference entitled "Multivariate Causality Measures and Applications in Macroeconomic and Financial Time Series", 14 May 2015, University of Macedonia, Thessaloniki.

- Responsible for the evaluation of the academic staff of the Logistics Department, Alexander Technological Institution of Thessaloniki, Greece. Tutoring students for the completion of their graduate dissertations (2009 - 2012).

- Member of the EEG Research Group of Aristotle University of Thessaloniki, Greece (http://eeganalysis.web.auth.gr/).

- Member of the thematic network of Aristotle University of Thessaloniki for the Statistical and Dynamical Analysis of Socio-economical Systems (http://sdass.web.auth.gr/).

- Supervision of the written assignment at the undergraduate level entitled "Inventory Theory", Department of Mathematics, AUTh, academic year 2018-2019.

- Reviewing manuscripts in various international scientific journals:

Computational Economics, Econometrics, Journal of Economic Dynamics and Control, Contemporary Economics, Studies in Nonlinear Dynamics & Econometrics, British Journal of Economics, Management and Trade, Entropy, Frontiers in Network Physiology, Applied Sciences, Chaos, Physica A, Journal of Statistical Physics, Physics Letters A, Computational and Mathematical Methods in Medicine, Environmental Processes, Frontiers in Neuroscience, Outsourcing Management for Supply Chain Operations and Logistics Services, Zeitschrift fur Naturforschung A, Proceedings of 1rst International Conference of Non Parametric Statistics.

Other qualifications

Knowledge and use of computers. Operating systems: Windows, Unix.

Computer Software: Microsoft Office, Latex.

Mathematical, statistical and financial packages: Matlab, SPSS, R, S-PLUS, Mathematica, Eviews, Gretl, C++.