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PROFESSIONAL POSITIONS

— *2013-now:* Assistant Professor, School of Mathematical and Statistical Sciences, Arizona State University.

— *2010-2013:* Postdoctoral Research Associate, Transportation Analytics Group, Business Analytics and Mathematical Sciences Department, IBM Thomas J. Watson Research Center.

— *2008-2010:* Postdoctoral Research Associate, School of Civil and Environmental Engineering, Cornell University.

— *2007-2008:* Visiting Lecturer in Statistics, Department of Applied Mathematics, University of Crete.

— *2002-2008:* Research Associate, Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas.

— *1999-2001:* Postgraduate Research Fellow, Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas.

AWARDS

— Best paper award, TRB Transportation Forecasting Competition (2013): 92nd annual meeting of the Transportation Research Board in Washington D.C.

— IBM invention achievement award (2012).

— 2nd place in IEEE ICDM Contest (2010): TomTom Traffic Prediction for Intelligent GPS Navigation. Member of IBM's team which took the second place in two of the three short-term traffic prediction tasks of the contest (Task 2: Predicting traffic jams; Task 3: Predicting traffic using GPS data). Joint work with: W. Shen, J. He, Q. He, R. Laurence, G. Swirszcz and L. Wynter. Results were announced at the 2010 IEEE International Conference on Data Mining in Sydney, Australia.

— Regional Economics Applications Lab Annual Award, for contributions in spatio-temporal econometric models (University of Illinois at Champaign-Urbana, 2003).

CURRENT RESEARCH INTERESTS

— Spatial time-series modeling

— Parametric nonlinear autoregressive models

— Robust estimation, quantile regression

— Applications in network flow prediction

EDUCATION

— Ph.d. in Mathematical Finance/Economics (2007), Department of Economics, University of Crete.

— Visiting Ph.d. Student (January-July 2003), Regional Economics Applications Lab, University of Illinois at Champaign-Urbana.

— M.Sc. in Statistics (2000), Department of Statistics, Athens University of Economics and Business (Joint program with K.U. Leuven, Belgium).

— B.Sc. in Mathematics (1998), Department of Mathematics, University of Crete.

SCHOLARSHIPS

— ERCIM Postdoctoral Fellowship in the memory of Alain Bensoussan[1], 2008.

[1]ERCIM: the European Research Consortium for Informatics and Mathematics. The fellowship was related to a postdoc position for research in spatial statistics in NTNU, Norway. It was declined in favor of a postdoc at Cornell.

— Visiting Scholarship, Regional Economics Applications Lab, University of Illinois at Champaign-Urbana, January-June 2003. Research Topic: Spatio-temporal econometric models. Advisor: Prof. Geoffrey Hewings.

— Postgraduate Scholarship, Regional Analysis Division, Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas, 1999-2001.

— Erasmus Postgraduate Scholarship, February-June 1999.

— Undergraduate Scholarship, Regional Analysis Division, Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas, January-June 1998.

THESES

— Ph.d. Thesis: "Stochastic Impulse Control with Discounted and Ergodic Optimization Criteria: Applications in Economics and Finance". Supervisor: Prof. A. Xepapadeas. Comitttee: N. Frangos (Professor, Department of Statistics, Athens University of Economics and Business); A. Yannacopoulos (Assoc. Professor, Department of Statistics, Athens University of Economics and Business); G. Kossioris (Assoc. Professor, Department of Mathematics, University of Crete); M. Loulakis (Assist. Professor, Department of Applied Mathematics, University of Crete); A. Kanas (Professor, Department of Economics, University of Piraeus); C. Zopounidis (Professor, Financial Engineering Lab, Technical University of Crete).

— M.Sc. Thesis: "Numerical Schemes for Stochastic Differential Equations". Supervisor: Prof. N. Frangos.

— B.Sc. Thesis: "Time Series Analysis and Applications to Economic Forecasting". Supervisor: P. Prastacos.

PROFESSIONAL EXPERIENCE

— *2013-now:* School of Mathematical & Statistical Sciences, Arizona State University.

  – Taught undergraduate and graduate courses on computational and applied statistics.
  – Supervised Ph.d. and M.Sc. theses.
  – Collaborated with ASU researchers in writing NSF proposals.

— *2010-2013:* IBM Research. Research Topic: Statistical modeling of network flows; development of IBM's Traffic Prediction Tool. Advisor: Laura Wynter.

- Developed prototype versions of IBM's Traffic Prediction Tool (TPT) using parametric nonlinear spatial time-series models and penalized estimation methods. Methodological aspects of this real-time forecasting system have been presented in peer-reviewed journal articles and conference proceedings.
- Applied TPT to road networks of various types (including urban networks) and sizes in Europe, Australia and the US. Maintained a postgres database of traffic data.
- Developed a novel incident-detection algorithm that combines decision-trees with nonparametric quantile regression models. The algorithm (for which a patent application has been filed) can be easily applied to road networks that contain numerous measurement locations, as computational requirements for its calibration are minimal. It was first applied in a pilot project in the road network of London.
- Collaborated with IBM researchers on the development of a new incident duration prediction algorithm that combines traffic data with incident related variables; a patent has been issued.
- Member of IBM's team that participated in a traffic forecasting competition and achieved 2 runners up positions.

— *2008-2010:* School of Civil and Environmental Engineering, Cornell University. Research Topic: Statistical modeling of high-frequency vehicular emissions rates. Advisor: Huaizhu Oliver Gao.

- Developed new (parametric, nonlinear time-series) predictive models for high-frequency PM emissions rates from diesel engines. Results have been presented in peer-reviewed journal articles and conference proceedings.
- Worked on the improvement of existing parametric time-series traffic prediction methods, using smooth transition and threshold regression models. Results have been presented in a peer-reviewed journal article.
- Collaborated with Cornell researchers in writing NSF proposals.
- Provided guidance related to applied statistical/econometric modeling to Ph.d. and M.Sc. students.

— *2007-2008:* Department of Applied Mathematics, University of Crete.

- Taught undergraduate courses on mathematical and applied statistics.
- Supervised B.Sc. and M.Sc. theses.

— *2002-2008:* Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas. Research Topic: Statistical modeling of spatio-temporal processes. Advisors: P. Prastacos and N. Chrysoulakis.

- Developed parametric spatial-time-series models for the prediction of traffic data. The resulting publications (4) have received more than 200 citations and were used by IBM researchers in the development of IBM's traffic prediction tool.

- Participated in a series of projects, most of them funded by the E.U., related to the analysis of remotely sensed data and the investigation of environmental phenomena. Developed spatio-temporal models, performed robust sub-pixel classification and evaluation of alternative spatial interpolation methods. Selected results have been presented in 4 peer-reviewed journal articles and 3 conference proceedings.
- Collaborated with coastal engineers and applied mathematicians in a European project that performed probabilistic tsunami hazard assessment in selected regions of the Mediterranean sea. Worked on the design of a Monte-Carlo experiment that used computationally expensive wave simulations. Results have been presented in a peer-reviewed journal article and conference proceedings.
- Supervised 5 intern students from the department of Mathematics, University of Crete, in tasks related to computational and applied statistics.
- Collaborated with medical doctors and applied mathematicians in the development of predictive models for the levels of abdominal aortic wall stress using data from 3-D aortic images. Results have been presented in 2 peer-reviewed journal articles and conference proceedings.
- Visited Regional Economics Applications Lab at University of Illinois (Champaign-Urbana) for 8 months and worked in the development of regional economic and spatial econometric models. The outcomes of the resulting collaborations have been presented in 3 peer-reviewed journal articles and conference proceedings.
- Collaborated with epidemiologists in a European project that studied the spatio-temporal evolution of Leishmaniasis in Tunisia, Algeria and Jordan. Developed space-time Poisson regression models and implemented space-time clustering methods. Part of the results has been presented in a peer-reviewed journal article and conference proceedings.
- Collaborated with neonatologists from Humboldt University and studied the effects of different feeding strategies on the growth of very low birthweight infants using linear mixed models. Selected outcomes from this research have been presented in a peer-reviewed journal article.

— *1999-2001:* Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas. Research Topic: Statistical modeling of spatial data. Advisor: P. Prastacos.

- Participated in a project funded by the Greek Secretariat for Research and Technology by developing regional econometric models that focused on the Cretan economy.
- Analyzed data from the Greek census using multivariate statistics methods (principal components analysis, various clustering algorithms) to classify Greek towns into homogeneous groups. Results have been presented in 2 peer-reviewed journal articles and conference proceedings.

ARTICLES PUBLISHED IN REFEREED JOURNALS[2]

1. Y. Kamarianakis, W. Shen and L. Wynter (2012) **Real-time road traffic forecasting using regime-switching space-time models and adaptive LASSO (with discussion).** *Applied Stochastic Models in Business and Industry, 28, 297-323.* [**6** (0)]

2. D. Mitsoudis, E. Flouri, N. Chrysoulakis, Y. Kamarianakis, E. Okal and C. Synolakis (2012) **Tsunami hazard in the south-east Aegean sea.** *Coastal Engineering, 60, 136-148.* [**10** (1)]

3. Z. Mitraka, N. Chrysoulakis, Y. Kamarianakis, P. Partsinevelos and A. Tsouchlaraki (2012) **Improving the estimation of urban surface emissivity based on sub-pixel classification of high resolution satellite imagery.** *Remote Sensing of Environment, 117, 125-134.* [**11** (2)]

4. N. Chrysoulakis, M. Abrams, Y. Kamarianakis and M. Stanislawski (2011) **Validation of the ASTER derived Global DEM product (GDEM) for the area of Greece.** *Photogrammetric Engineering and Remote Sensing, 77, 157-165.* [**6** (2)]

5. J. Le Gallo and Y. Kamarianakis (2011) **The evolution of regional productivity disparities in the European Union from 1975 to 2002: A combination of shift-share and spatial econometrics.** *Regional Studies, 45, 123-139.* [**14** (0)]

6. Y. Kamarianakis, H.O. Gao, B. Holmén and D. Sonntag (2011) **Robust modeling and forecasting of diesel particle number emissions rates.** *Transportation Research Part D: Transport and Environment, 16, 435-443.* [**3** (1)]

7. Y. Kamarianakis, H.O. Gao and B. Holmén (2011) **Evaluating the effects of engine operating variables on particle numbers emissions rates using robust regression models.** *Transportation Research Record-Journal of the Transportation Research Board, No. 2233, 36-44.*

8. Y. Kamarianakis and H.O. Gao (2010) **Accounting for exhaust gas transport dynamics in instantaneous emission models via smooth transition regression.** *Environmental Science & Technology, 44, 1320-1326.* [**4** (1)]

9. Y. Kamarianakis, H.O. Gao and P. Prastacos (2010) **Characterizing regimes in daily cycles of urban traffic using smooth transition regressions.** *Transportation Research Part C: Emerging Technologies, 18, 821-840.* [**14** (1)]

10. E. Georgakarakos, C. Ioannou, Y. Kamarianakis, Y. Papaharilaou, T. Kostas, E. Manousaki and A.N. Katsamouris (2010) **The role of geometric parameters in the prediction of abdominal aortic aneurysm wall stress.** *European Journal of Vascular and Endovascular Surgery, 39, 42-48.* [**32** (8)]

[2]Total number of citations in bold, self-citations in parentheses. Sources: GoogleScholar and Scopus.

11. E. Georgakarakos, C. Ioannou, T. Kostas, A.N. Katsamouris and Y. Kamarianakis (2009) **Regarding "Impact of calcification and intraluminal thrombus on the computed wall stresses of abdominal aortic aneurysm".** *Journal of Vascular Surgery, 50, 474.* [**1** (1)]

12. H. Feidas, G. Kokolatos, A.J. Negri, M. Manyin, N. Chrysoulakis and Y. Kamarianakis (2009) **A validation of an infrared-based satellite algorithm to estimate accumulated rainfall over the Mediterranean basin.** *Theoretical and Applied Climatology, 95, 91-109.* [**9** (2)]

13. Y. Kamarianakis, H. Feidas, G. Kokolatos, N. Chrysoulakis and V. Karatzias (2008) **Evaluating remotely sensed rainfall estimates using nonlinear mixed models and geographically weighted regression.** *Environmental Modeling and Software, 23, 1438-1447.* [**16** (1)]

14. N. Chrysoulakis, Y. Kamarianakis, L. Xu, Z. Mitraka and J. Ding (2008) **Combined use of MODIS, AVHRR and radiosonde data for the estimation of spatio-temporal distribution of Precipitable Water.** *Journal of Geophysical Research, 113, D05101, doi: 10.1029/2007JD009265* [**6** (6)]

15. A. Loui, E. Tsalikaki, K. Maier, E. Walch, Y. Kamarianakis and M. Obladen (2008) **Growth in high risk infants 1500 g birthweight during the first 5 weeks.** *Early Human Development, 84, 645-650.* [**13** (1)]

16. A. Ben Salah, Y. Kamarianakis, S. Chlif, P. Prastacos and N. Ben Alaya (2007) **Zoonotic Cutaneous Leishmaniasis in central Tunisia: Spatio-temporal dynamics.** *International Journal of Epidemiology, 36, 991-1000.* [**28** (8)]

17. S. Dall'erba, Y. Kamarianakis, J. Le Gallo and M. Plotnikova (2005) **Regional productivity differentials in three new member countries. What can we learn from the 1986 enlargement to the south?** *The Review of Regional Studies, 35, 97-116.* [**12** (1)]

18. Y. Kamarianakis, A. Kanas and P. Prastacos. (2005) **Modeling traffic flow volatility dynamics in an urban network.** *Transportation Research Record-Journal of the Transportation Research Board, No. 1923, 18-27.* [**35** (4)]

19. Y. Kamarianakis and P. Prastacos (2005) **Space-time modeling of traffic flow.** *Computers & Geosciences 31, 119-133.* [**90** (8)]

20. Y. Kamarianakis and D. Kontos (2004) **Classification of Greek municipalities according to their socioeconomic characteristics** (In Greek). *Aeihoros, 3, 154-170.* [**2** (0)]

21. Y. Kamarianakis and P. Prastacos. (2003) **Forecasting traffic flow conditions in an urban network: Comparison of multivariate and univariate approaches.** *Transportation Research Record-Journal of the Transportation Research Board, No. 1857, 74-84.* [**90** (8)]

22. J. Le Gallo, S. Dall'erba, Y. Kamarianakis and M. Plotnikova (2003) **Les différentiels de productivité régionale dans les pays en transition par rapport à la moyenne européenne: le cas de la Pologne, de la Hongrie et de la République Tchèque,** *Région et Développement, no. 2003-18, 111-129.* [**4** (1)]

ARTICLES PUBLISHED IN BOOKS AND COLLECTIVE VOLUMES

23. Q. He, Y. Kamarianakis, K. Jintanakul and L. Wynter (2013) **Incident duration prediction with hybrid tree-based quantile regression.** In S. Ukkusuri and K. Ozbay (eds), *Advances in Dynamic Network Modeling in Complex Transportation Systems (Chapter 12), Springer.* [**1** (0)]

24. M. Lipakis, N. Chrysoulakis and Y. Kamarianakis (2008) **Shoreline extraction using satellite imagery.** In E. Pranzini and L. Wetzel (eds), *Beach Erosion Monitoring: Results from BEACHMED-e/OpTIMAL Project, Nuova Grafica Fiorentina, 83-97.* [**5** (4)]

25. Y. Kamarianakis and P. Prastacos (2005) **Classification of Greek municipalities: An application of multivariate statistics to census data** (In Greek). In B. Kotzamanis and V. Pappas (eds), *Space and Population: Analytic approaches, University of Thessaly Press, 241-252.* [**4** (1)]

BOOK REVIEWS

26. Y. Kamarianakis (2014) **Time Series with Mixed Spectra.** *Journal of Applied Statistics, forthcoming.*

27. Y. Kamarianakis (2013) **Ergodic control of Diffusion Processes.** *Journal of Applied Statistics, 40, 921-922.*

28. Y. Kamarianakis (2012) **The Oxford Handbook of Economic Forecasting.** *Journal of Applied Statistics, 39, 2303-2304.*

OTHER PUBLICATIONS

29. Y. Kamarianakis and H.O. Gao (2009) **Diesel ultrafine/fine emissions in numbers: Statistical modeling and evaluation of engine operating variables.** *Technical Report, University Transportation Research Center, City College of New York.*

30. P. Prastacos and Y. Kamarianakis (2007) **Statistical models for urban traveler information and traffic management systems.** *ERCIM NEWS, 68, 32-33.*

31. Y. Kamarianakis and A. Xepapadeas (2007) **Controlling the risky fraction process with an ergodic criterion.** *Paper 0710, Working Paper Series, Department of Economics, University of Crete.*

32. Y. Kamarianakis and A. Xepapadeas (2007) **Stochastic impulse control with discounted and ergodic optimization criteria: A comparative study for the control of risky holdings.** *Paper 0709, Working Paper Series, Department of Economics, University of Crete.*

33. Y. Kamarianakis and A. Xepapadeas (2007) **An irreversible investment model with a stochastic production capacity and fixed plus proportional adjustment costs.** *Paper 0708, Working Paper Series, Department of Economics, University of Crete.*

34. Y. Kamarianakis (2003) **Spatial time series modeling: A review of the proposed methodologies.** *Regional Economics Applications Lab Technical Series,University of Illinois at Champaign-Urbana, REAL 03-T-19.* [**15** (1)]

35. Y. Kamarianakis (2003) **A hierarchical Bayesian approach for spatial time series.** *Regional Economics Applications Lab Technical Series, University of Illinois at Champaign-Urbana, REAL 03-T-15.* [**1** (0)]

36. Y. Kamarianakis and J. Le Gallo (2003) **The evolution of regional productivity disparities in the E.U., 1975-2000.** *Cahiers du GRES 2003-15.* [**13** (1)]

MANUSCRIPTS SUBMITTED OR IN PREPARATION

37. Y. Kamarianakis and L. Wynter (2013) **Space-time modeling of traffic variables with adaptive LAD-LASSO.**

38. Y. Kamarianakis (2013) **Penalized estimation of threshold regressions with applications in network flow prediction.**

39. Y. Kamarianakis and L. Wynter (2013) **Incident detection in urban networks: A combination of decision trees with nonparametric quantile regression.**

40. Y. Kamarianakis and L. Wynter (2013) **Real-time traffic forecasting in urban networks with regime-switching forecast combination schemes.**

41. S.V. Ayuso, Y. Kamarianakis and A.R. Vidal (2014) **Stream water temperature prediction in Spanish rivers using statistical air-to-water relations.**

42. Y. Kamarianakis, A.R. Vidal and S.V. Ayuso (2014) **Forecasting daily stream temperatures using air temperatures.**

CONFERENCE PROCEEDINGS

1. W. Shen, Y. Kamarianakis, J. He, Q. He, R. Lawrence, G. Swirszcz and L. Wynter (2010) **Traffic velocity prediction using GPS data: IEEE ICDM contest task 3 report.** 10th IEEE International Conference on Data Mining. Sydney, Australia, December 2010. [**3** (0)]

2. J. He, Q. He, G. Swirszcz, Y. Kamarianakis, R. Lawrence, W. Shen and L. Wynter (2010) **Ensemble-based method for task 2: predicting traffic jams.** 10th IEEE International Conference on Data Mining. Sydney, Australia, December 2010. [**2** (0)]

3. E. Georgakarakos, Y. Kamarianakis, C. Ioannou, Y. Papaharilaou and A. Katsamouris (2009) **The reducing effect of intraluminal thrombus on wall stress in abdominal aortic aneurisms can be influenced by geometric factors.** 58th International Congress of the European Society for CardioVascular Surgery. Warsaw, Poland, May 2009.

4. E. Flouri, N. Chrysoulakis, D.A. Mitsoudis, Y. Kamarianakis, S. Foteinis, E. Okal and C. Synolakis (2009) **Tsunami hazard assessment in the eastern Aegean sea.** European Geosciences Union General Assembly, Vienna, Austria, April 2009. [**1** (0)]

5. Y. Kamarianakis and P. Prastacos (2008) **Characterizing regimes in daily cycles of urban traffic using smooth transition autoregressive models.** 10th International Conference on Application of Advanced Technologies in Transportation. Athens, Greece, May 2008.

6. Z. Mitraka, N. Chrysoulakis and Y. Kamarianakis (2008) **Estimation of the spatio-temporal distribution of precipitable water using satellite and radiosonde data.** 9th International Conference on Meteorology, Climatology and Environmental Physics. Thessaloniki, Greece, May 2008.

7. Y. Kamarianakis, A. Ben Salah, S. Chlif and P. Prastacos (2007) **Risk maps for the study of Leishmaniasis in central Tunisia.** Proceedings of the 10th AGILE International Conference on Geographic Information Science. Aalborg, Denmark, May 2007.

8. Y. Kamarianakis, A. Ben Salah, S. Chlif and P. Prastacos (2006) **Risk maps for the study of Leishmaniasis in central Tunisia.** (In Greek) Proceedings of the 4th HELLASGIs Conference. National Polytechnic School of Athens, Greece, March 2006.

9. Y. Kamarianakis, N. Chrysoulakis, H. Feidas and G. Kokolatos (2006) **Comparing rainfall estimates derived from rain gages and satellite images at the eastern Mediterranean region.** Proceedings of the 9th AGILE International Conference on Geographic Information Science. Visegrad, Hungary, April 2006. [**5** (0)]

10. Y. Kamarianakis and P. Prastacos (2005) **Spatial time series modeling: An overview of the proposed methodologies.** In Toppen, F. and Painho, M., (eds) Proceedings of the 8th AGILE Conference on Geographic Information Science, Universidade Nova de Lisboa, Lisboa, Portugal, 167-176.

11. Y. Kamarianakis and V. Kaslis (2005) **Competition-complementarity relationships between Greek regional economies.** Proceedings of the European Regional Science Association Conference. Volos, Greece, August 2005. [**3** (0)]

12. N. Chrysoulakis, Y. Kamarianakis, Y. Farsari, M. Diamandakis and P. Prastacos (2004) **Combining satellite and socioeconomic data for land-use models estimation.** Proceedings of the EarSel conference. Cairo, Egypt, September 2004. [**2** (2)]

13. Y. Kamarianakis and J. Le Gallo, (2004) **The evolution of regional productivity disparities in the European Union, 1975-2000.** Proceedings of the 7th AGILE conference. Heraklion, Greece, April 2004.

14. Y. Kamarianakis, D. Kotzinos and P. Prastacos. (2004) **Bivariate traffic relations: A space-time modeling approach.** Proceedings of the 7th AGILE conference. Heraklion, Greece, April 2004. [**2** (2)]

15. Y. Kamarianakis and J. Le Gallo (2004). **The evolution of regional productivity disparities in the European Union, 1975-2000.** A short version of that article in Greek lies at the Proceedings of the 3rd HELLASGIs Conference, National Polytechnic School of Athens. Athens, Greece, March 2004.

16. Y. Kamarianakis and P. Prastacos (2002) **Forecasting traffic flow conditions in an urban network: Comparison of multivariate and univariate approaches.** Extended abstract appeared in: Proceedings of the 13th Euro-Conference "Handling Uncertainty in the Analysis of Traffic and Transportation Systems". Bari, Italy, June 2002.

17. Y. Kamarianakis and P. Prastacos, (2002) **Space-time modeling of traffic flow.** Proceedings of the European Regional Science Association Conference. Dortmund, Germany, August 2002.

18. Y. Kamarianakis and P. Prastacos, (2002) **Development of space-time traffic flow models.** Proceedings of Second Hellenic Conference of GIS applications (in Greek). Athens, Greece, February 2002.

19. Y. Kamarianakis and N. Frangos (2002) **Deterministic and stochastic differential equation modeling for electrical networks.** In E. Lipitakis (ed.), HERCMA 2001, Proceedings of the 5th Hellenic-European conference on computer mathematics and its applications, 2 volumes. Athens: LEA. 770-777. [**2** (0)]

20. D. Dermitzaki, F. Chaniotaki, O. Fraidaki, Y. Kamarianakis, A. Papaioannou and A. Askitopoulou (2001) **ASA and severity of postoperative pain are prognostic factors for postoperative cardiovascular & respiratory complications.** Proceedings of the Annual Meeting of the European Academy of Anaesthesiology[3] 2001. Graz, Austria, August 2001.

21. Y. Kamarianakis and P. Prastacos (2001) **Multivariate hierarchical Bayesian space-time models in economics.** ETK-NTTS 2001 Proceedings New Techniques and Technologies for Statistics, pp. 503-514, Eurostat. Heraklion, Greece, July 2001. [**3** (0)]

22. Y. Kamarianakis and P. Prastacos, (2001) **Classification of the municipalities of Greece according to their socio-economic characteristics.** In B. Kotzamanis and V. Pappas (eds) Spatial Dimensions of Demographic Events, pp. 187-208, (in Greek). Volos, Greece, April 2001.

OTHER PRESENTATIONS AT CONFERENCES, SEMINARS AND WORKSHOPS

— Joint Statistical Meetings, Boston, August 2014.

— 34th International Symposium on Forecasting (chair of the Transportation Session), Rotterdam, July 2014.

— Colloquium (invited), Department of Mathematics and Applied Mathematics, University of Crete, June 2014.

— Seminar on Traffic Forecasting and Incident Detection (invited), Berkeley Transportation Systems, Berkeley, February 2013.

— Seminar on Statistical Modeling of Network Flows (invited), Arizona State University, Department of Mathematics and Statistics, Tempe, February 2013.

[3]The abstract appeared in *European Journal of Anaesthesiology, 19, 211-212,* (2002).

— 92nd annual meeting of the Transportation Research Board, Washington D.C., January 2013.

— Seminar on Network Flow Forecasting (invited), Dow AgroSciences, Indianapolis, September 2012.

— 8th International Purdue Symposium on Statistics, Purdue University, West Lafayette, June 2012.

— Seminar on Traffic Forecasting and Incident Detection (invited), Gradiant: Centro Tecnoloxiko de Telecomunication de Galicia, Vigo, February 2012.

— Seminar on Traffic Forecasting (invited), IBM Research, Dublin, December 2011.

— Mathematics of Smarter Planet Seminar, IBM T.J. Watson Research Center, February 2011.

— 90th annual meeting of the Transportation Research Board, Washington D.C., January 2011.

— BAMS seminar (invited), IBM T.J. Watson Research Center, March 2010.

— 20th CRC Real World Emissions Workshop, San Diego, California, March 2010.

— 89th annual meeting of the Transportation Research Board, Washington D.C., January 2010.

— Post-doc Research Day, Cornell University, March 2009.

— 11th World Conference on Transport Research, University of California, Berkeley, June 2007.

— 12th International conference on Applied Stochastic Models and Data Analysis (ASMDA 2007), Chania, Crete, May 2007.

— Department of Economics Seminar, University of Crete, Rethymnon, November 2006.

— EUREAL workshop, Glasgow, September 2006.

— M3ST conference in Applied Mathematics, Paros, September 2006.

— ERSA 2006 conference of the European Regional Science Association, University of Thessaly, Volos, August 2006.

— HellasGiS Conference, National Technical University of Athens, May 2006.

— European Regional Science Association Meeting, Amsterdam, August 2005.

— Department of Economics Seminar, University of Crete, Rethymnon, December 2005.

— 84th annual meeting of the Transportation Research Board, Washington D.C., January 2005.

— Stochastic Finance Conference. Institute Superior de Economia e Gestao, Lisbon, September 2004.

— Young Researchers Meeting, HellasGIs Association, National Polytechnic School of Athens, January 2004.

— North American Regional Science Association Conference, Philadelphia, November 2003.

— Southern Regional Science Association Meeting, Louisville, April 2003.

— Regional Economics Applications Lab Seminar, University of Illinois at Urbana Champaign, April 2003.

— XIIIe Journees du Sesame, Gemma Universite de Caen Basse-Normandie, September 2003.

— 82nd annual meeting of the Transportation Research Board, Washington D.C., January 2003.

— OMNI Workshop on Transportation Systems, Polytechnic School of Chania, April 2002.

PARTICIPATION IN RESEARCH PROJECTS

— Grand Lyon: Traffic prediction in an urban network (2012-2013). Funding Source: City of Lyon. Responsible for the calibration of IBM's Traffic Prediction Tool.

— TfL: Strategic traffic modeling in the presence of incidents (2011). Funding Source: Transport for London. Responsible for the design and implementation of incident detection algorithms.

— TPT: IBMs' Traffic Prediction Tool (2010-2013). Responsible for the development of the predictive models and incident detection algorithms in prototype versions of TPT v2.0.

— TRANSFER: Tsunami Risk ANd Strategies For the European Region (2007-2008). Funding Source: EC FP6 STREP. Responsible for the design of a Probabilistic Tsunami Hazard Assessment study for Rhodes.

— PRECIPITABLE WATER (2005-2007): Study on the spatial-temporal distribution of atmospheric water content with the combined use of satellite remote sensing and non-linear science. Funding Source: Greek Ministry of Development, General Secretariat for Research and Technology. Responsible for the evaluation of remotely sensed PW estimates using robust regression models.

— SATERM: A Satellite Technique for Estimating Rainfall over Mediterranean (2004-2006). Funding Source: Greek Ministry of Development, General Secretariat for Research and Technology. Responsible for the statistical evaluation of the Convective Stratiform Technique which is designed to estimate rainfall from satellite imagery. Responsible for the evaluation of the performance of various spatial interpolation methods.

— LIAISON: LocatIon bAsed servIceS for the enhancement of wOrking environment (2004-2006). Funding Source: EU IST Program. Responsible for the development and application of statistical models that estimate current and forecast future travel times at the Athens road network.

— EMPHIS: Euro-Mediterranean Public Health Information System (2002-2005). Funding Source: EU EUMEDIS Program. Responsible for the estimation of spatial statistical models for the evolution of Zoonotic Cutaneous Leishmaniasis in Central Tunisia.

— LABOR MARKET: Analysis of the labor markets in Crete (1999). Funding Source: Greek Ministry of National Planning. Responsible for constructing a set of econometric/forecasting models for the Cretan economy.

PATENTS

— Y. Kamarianakis and L. Wynter, "Method and system to perform time-series-based predictions with projection thresholds, using secondary time-series-based information stream", US Patent (submitted June 2012).

— Y. Kamarianakis and L. Wynter, "Incident detection via nonparametric quantile regression", US Patent (submitted March 2012).

— Q. He, K. Jintanakul, Y. Kamarianakis and L. Wynter, "Incident Characteristic Prediction for Real-time Traffic Management", US Patent (filed March 2012).

TEACHING[4]

— Computational Statistics (STP 598), Arizona State University, Fall 2014. Graduate course based on: "Computational Statistics" (2nd Edition), by Givens and Hoeting and "Introducing Monte Carlo Methods with R" by Robert, and Casella.

— Applied Regression Analysis (STP 530), Arizona State University, Spring 2014. Graduate course based on: "Applied Linear Regression Models" (5th Edition), by Kutner, Nachtsheim, Neter, and Li. and "An Introduction to Statistical Learning: with Applications in R" by James, Witten, Hastie and Tibshirani.

[4]2009-2010: Participated in a series of seminars organized by the Center for Teaching Excellence, Cornell University. 1997-1998: Teaching assistant, undergraduate course on Probability Theory, Department of Mathematics, University of Crete.

— Introduction to Applied Statistics (STP 420), Arizona State University, Fall 2013. Undergraduate course based on: "Introduction to the Practice of Statistics" (7th Edition), by Moore, McCabe and Craig. The course introduced students to the use of statistical software and covered exploratory statistics, basic nonparametric, chi-square and t-tests, correlation metrics, linear regression and ANOVA models.

— Applied Statistics, Department of Applied Mathematics, University of Crete, Spring 2008. Undergraduate course taught in Greek. The course covered ANOVA designs and linear regression models from both a mathematical and an application oriented viewpoint. Particular emphasis was devoted to proper implementation of the statistical techniques to real-world data using R.

— Mathematical Statistics, Department of Applied Mathematics, University of Crete, Fall 2007. Undergraduate course taught in Greek. The course covered maximum likelihood and minimum variance unbiased estimators, hypothesis testing based on the Neyman-Pearson Lemma and construction of confidence intervals.

— Applied Statistical Methods, Trinity International School of Management, Spring 2007. Undergraduate course taught in English. The course covered exploratory statistics, t-tests, correlation metrics and linear regression models.

— Introduction to Mathematical Modeling, Trinity International School of Management, Spring 2007. Undergraduate course taught in English. The course focused on relatively advanced applications of early-stage mathematical methods (Calculus I level).

THESIS SUPERVISION[5]

— Ph.D. thesis of Meng Wang[6], School of Mathematical and Statistical Sciences, Arizona State University: 'Statistical Space-Time Models with Applications in Climate Simulations' (expected 2017).

— M.Sc. thesis of Qinliang Wang, School of Mathematical and Statistical Sciences, Arizona State University: 'Time Series Models for Categorical and Count Data with Applications in the Analysis of Basketball Games' (2014).

— M.Sc. thesis of Jiaju Liu, School of Mathematical and Statistical Sciences, Arizona State University: 'Regime Switching Forecast Combinations' (expected 2014).

— M.Sc. thesis of Hua Wang, School of Mathematical and Statistical Sciences, Arizona State University: 'Nonlinear Time Series Models: Applications in Vehicular Traffic Forecasting' (expected 2014).

— M.Sc. thesis of Spiros Papadogiannis, Department of Applied Mathematics, University of Crete: 'Optimal Variable Selection in Regression' (2007).

[5]Joint supervision with P. Prastacos and D. Kritikou while at the University of Crete.
[6]Main advisor: Alex Mahalov.

— M.Sc. thesis of Vasilis Karatzias, Department of Applied Mathematics, University of Crete: 'Spherically Symmetric Shrinkage Estimators' (2006).

— B.Sc. thesis of D. Kontos, Department of Mathematics, University of Crete: 'Classification of Greek towns: Application of principal components analysis and clustering techniques' (2004).

EDITORIAL ACTIVITY

— *2013-now:* Editorial Advisory Board, *Transportation Research Part C: Emerging Technologies*

— Refereeing[7]: *Computational Statistics and Data Analysis (1), Computer Aided Civil and Infrastructure Engineering (1), Computers Environment and Urban Systems (6), Communications in Statistics-Theory and Methods (1), Environmental Modelling and Software (1), European Journal of Operational Research (12), IEEE Transactions on Intelligent Transportation Systems (3), International Journal of Geographical Information Science (3), International Journal of Production Economics (1), International Journal of Remote Sensing (1), International Regional Science Review (1), Journal of Econometrics (1), PLOS ONE (1), Quantitative Finance (4), Regional Studies (1), Remote Sensing of Environment (3), Review of Regional Research (1), Simulation: Transactions of the Society for Modeling and Simulation International (1), Simulation Modeling Practice and Theory (1), Statistica Neerlandica (1), The Annals of Regional Science (1), Transportmetrica A: Transport Science (1), Transportation Research Part C (30), Transportation Research Record (6).*

CONSULTING

— Infotraffic S.A., 2006-2008.

— University Hospital of Crete, Department of Anaesthesiology, 1999-2001.

— Consulting services to medical doctors and biologists[8].

[7]Number of papers in parentheses.

[8]See, for example, acknowledgments in Bolshakov et al. (*Genome Research,* 2002).

TECHNICAL SKILLS

— R, SAS, SPSS

— Matlab, Mathematica

— PostgreSQL

— Linux (Ubuntu, Red Hat)

PERSONAL DATA

— Private Address: 2978 E. Palmdale Ln, Gilbert, AZ 85298. Telephone: +1 607 330 4387

— Nationality: Greek.

— Date of Birth: January 24, 1976.

— Marital Status: Married to Eleni Apostolidi, one daughter, one son.

— VISA Status: H1B (green-card application pending)