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PROFESSIONAL POSITIONS

— *2025-present:* Research Director (Full Professor Grade), Data Science Group, IACM-FORTH.

— *2023-present:* Faculty, Data Analysis & Machine-Statistical Learning Graduate Program, University of Crete.

— *2018-2025:* Principal Researcher (Associate Professor Grade), Data Science Group, IACM-FORTH.

— *2018-2023:* Adjunct Faculty, School of Mathematical and Statistical Sciences, Arizona State University.

— *2013-2018:* Assistant Professor (Honors Faculty), School of Mathematical and Statistical Sciences, Arizona State University.

— *2010-2013:* Postdoctoral Researcher, 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.

— *1999-2008:* Research Associate, Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas.

AWARDS

— Outstanding Contribution in Reviewing: Transportation Research Part C (2016); Computers Environment and Urban Systems (2018).

— 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.

— 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, Spatio-Temporal Filtering with Eigenvectors

— Bayesian parametric nonlinear autoregressive models

— Robust estimation, Quantile regression, Resampling-based adaptive shrinkage estimators

— Statistical models in geosciences, Network flow forecasting

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.

— 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.

[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.

— Postgraduate Scholarship, 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. Comittee: 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

— *2018-present:* Institute of Applied & Computational Mathematics, Foundation for Research and Technology-Hellas.

  – Developed machine-learning algorithms, statistical models and software for online wind-farm and solar panel energy output forecasting. The software was successfully evaluated against a well-known commercial solution.
  – Taught graduate courses on computational and applied statistics.
  – Supervised M.Sc. & B.Sc. theses and internships.
  – Co-authored a book on statistical analysis of transportation emissions.

— *2013-2018:* School of Mathematical & Statistical Sciences, Arizona State University.

  – Taught undergraduate and graduate courses on computational and applied statistics; developed a new graduate course on Computational Statistics.
  – Supervised Ph.d., M.Sc. and Honors theses.
  – Collaborated with ASU faculty in NSF- and USDA-funded research.

— *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 non-parametric quantile regression models. The algorithm (for which a patent has been issued) 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, before the Olympics.
- 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 published 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 1000 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 exploited computationally expensive wave simulations. Research outcomes were published in a peer-reviewed journal article and conference proceedings.
- Supervised 5 intern students from the department of Mathematics, University of Crete, in research projects related to computational and applied statistics.
- Collaborated with medical doctors and applied mathematicians in the development of predictive models for abdominal aortic wall stress using data from 3-D aortic images. Results were depicted in 2 peer-reviewed journal articles and conference proceedings.
- Visited Regional Economics Applications Lab at University of Illinois (Champaign-Urbana) for 6 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. Selected results were published in a peer-reviewed journal article and conference proceedings.
- Collaborated with neonatologists from Humboldt University in evaluating the effects of alternative feeding strategies on the growth of very low birth-weight infants. The analysis was mainly based on linear mixed-effects models; selected outcomes were published 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.

- Developed econometric models for the Cretan economy (research project funded by the Greek Secretariat for Research and Technology).
- 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.

REFEREED PUBLICATIONS[2]

1. Y. Kamarianakis, E. Dretaki ♠, V. Andreadakis, I. Smyrnakis and I. Aslanides (2026) **Subsampling-based adaptive ridge logistic regression with application to Dyslexia screening.** *Communications in Statistics - Case Studies and Data Analysis, under revision.*

2. A. Kofidis, E. Dretaki ♠, M. Zotou, D. Poursanidis, A. Doxa, A. D. Mazaris, S. Katsanevakis, Y. Kamarianakis and Y. Pantazis (2026) **High-Accuracy Fish Species Identification Using Transfer Learning on Vision Foundation Models.** *Frontiers in Marine Science (Special Issue on Data Science and Artificial Intelligence for Advancing Marine Science and Technology), 13:1754181.*

3. K. Kostas, S. Kar, K. Mavridis, E. Deligianni, E. Roditakis, E. Gizeli, J. Vontas, Y. Kamarianakis, P. Karanis and M. Kotsyfakis (2025) **Tick-borne challenges in a changing climate: risks and mitigation strategies for Mediterranean livestock systems.** *Entomologia Generalis, 45 (5), 1259-1269.*

4. Y. Kamarianakis, Y. Pantazis, E. Kalligiannaki, T.D. Katsaounis, K. Kotsovos, I. Gereige, M. Abdullah, A. Jamal and A. Tzavaras (2024) **Robust day-ahead solar forecasting with endogenous data and sliding windows.** *Journal of Renewable and Sustainable Energy, 16, 026103.*

5. K. Tzirakis, Y. Kamarianakis, N. Kontopodis and C. Ioannou (2023) **Selection of bifurcated grafts' dimensions during aorto-iliac vascular reconstruction based on their hemodynamic performance.** *Bioengineering, 10 (7), 776.*

6. K. Tzirakis, Y. Kamarianakis, N. Kontopodis and C. Ioannou (2023) **Classification of blood rheological models through an idealized symmetrical bifurcation.** *Symmetry, 15 (3), 630.* $*$

7. K. Tzirakis, Y. Kamarianakis, N. Kontopodis and C. Ioannou (2023) **The effect of blood rheology and inlet boundary conditions on realistic abdominal aortic aneurysms under pulsatile flow conditions.** *Bioengineering, 10 (2), 272.*$*$

8. A. Mazaris et al. (2023) **Priorities for Mediterranean marine turtle conservation and management in the face of climate change.** *Journal of Environmental Management, 339, 117805.*$*$

9. A. Doxa, Y. Kamarianakis and A. Mazaris (2022) **Spatial heterogeneity and temporal stability characterize future climatic refugia in the Mediterranean Europe** *Global Change Biology, 28, 2413-2424.* $**$

10. M. Giacomazzo ♠ and Y. Kamarianakis (2020) **Bayesian estimation of subset threshold autoregressions: short-term forecasting of traffic occupancy** *Journal of Applied Statistics (Special Issue on Advances in Computational Data Analysis), 47, 2658-2689.*

[2]Total number of citations $> 3000, h-index = 27$. A $*$ denotes more than 10, $**$ denotes more than 25, $***$ more than 50 and $****$ more than 100 citations. Sources: GoogleScholar and Scopus. A ♠ indicates a student working under my supervision.

11. N. Cho ♠, M. El Asmar, S. Underwood and Y. Kamarianakis (2020) **Long-term performance benefits of Design-Build applied to transportation projects.** *KSCE Journal of Civil Engineering, 24, 1049-1059.*

12. N. Nikoloudakis, S. Stagakis, Z. Mitraka, Y. Kamarianakis and N. Chrysoulakis (2020) **Spatial interpolation of urban air temperatures using satellite-derived predictors.** *Theoretical and Applied Climatology, 141, 657-672.*∗

13. Y. Kamarianakis, X. Li, B.L. Turner II and A.J. Brazel (2019) **On the effects of land architecture on summer diurnal temperatures in urban residential areas: Application in Phoenix, AZ.** *Frontiers of Earth Science, 13, 445-463.* ∗

14. B. Wang, Y. Zheng, D. Fang, Y. Kamarianakis and J. Wilson (2019) **Split bootstrap hierarchical modeling of antibiotics abuse in China.** *Statistics in Medicine, 38, 2282-2291.*

15. J.D. Plasencia ♠, Y. Kamarianakis, J.R. Ryan, S.S. Park, J.J. Nigro, T. Karamlou, D.H. Frakes, S.G. Pophal, and S.D. Zangwill (2018) **Alternative methods for virtual heart transplant – size matching for pediatric heart transplantation with and without donor medical images available.** *Pediatric Transplantation, 22: e13290, 1-11.*∗∗

16. K. Tzirakis, Y. Kamarianakis, E. Metaxa, N. Kontopodis, C. Ioannou and Y. Papaharilaou (2017) **A robust approach in exploring associations between hemodynamics and thrombus growth in abdominal aortic aneurysms.** *Medical & Biological Engineering & Computing, 55, 1493-1506 .* ∗∗

17. M. Wang ♠, M. Wagner, G. Miguez-Macho, Y. Kamarianakis, A. Mahalov, M. Moustaoui, J. Miller, A. VanLoocke, J.E. Bagley, C. J. Bernacchi and M. Georgescu (2017) **On the long-term hydroclimatic sustainability of perennial bioenergy crop expansion over the United States.** *Journal of Climate, 30, 2535-2557.* ∗∗

18. X. Li, Y. Kamarianakis, Y. Ouyang, B. L. Turner II, S. Harlan and A. Brazel (2017) **On the association between land system architecture and land surface temperatures: evidence from a desert metropolis–Phoenix, Arizona, U.S.A.** *Landscape and Urban Planning, 163, 107-120.* ∗∗

19. Y. Kamarianakis, S.V. Ayuso, E.C. Rodriguez and M.T. Velasco (2016) **Water temperature forecasting for Spanish rivers by means of nonlinear mixed models.** *Journal of Hydrology: Regional Studies, 5, 226-243.* ∗

20. A. Beloconi, Y. Kamarianakis and N. Chrysoulakis (2016) **Estimating urban PM10 and PM2.5 concentrations, based on synergistic MERIS/AATSR aerosol observations, land cover and morphology data.** *Remote Sensing of Environment, 172, 148-164.* ∗∗∗

21. 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.* ∗∗∗

22. 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.* ∗∗∗∗

23. 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.* $**$

24. 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.* $***$

25. 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.* $**$

26. 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.* $**$

27. 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.* $*$

28. 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.*

29. 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.* $*$

30. 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.* $***$

31. 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. 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.*

33. 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.* $***$

34. 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.* $**$

35. 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* ∗

36. 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.* ∗∗

37. 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.* ∗ ∗ ∗∗

38. 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.* ∗

39. 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.* ∗ ∗ ∗

40. Y. Kamarianakis and P. Prastacos (2005) **Space-time modeling of traffic flow.** *Computers & Geosciences 31, 119-133.* ∗∗∗∗

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

42. 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.*

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

PATENTS

44. L. Wynter and Y. Kamarianakis (2015) **System and method for incident detection with spatio-temporal thresholds estimated via nonparametric quantile regression**, US Patent *2015/0006111 A1.*

45. Y. Kamarianakis and L. Wynter (2014) **Performing time-series-based predictions with projection thresholds using secondary time-series-based information stream**, US Patent *2014/0309977 A1.*

46. L. Wynter, Q. He, K. Jintanakul and Y. Kamarianakis (2013) **Estimating Incident Duration**, US Patent *2013/0253808 A1.* ∗

OTHER PUBLICATIONS

47. J. Plasencia ♠, J.R. Ryan, D. Velez, K. Lagerstrom, J.J. Nigro, T. Karamlou, Y. Kamarianakis, D.H. Frakes, S.G. Pophal, S.D. Zangwill (2018) **Pediatric Donor-Recipient Size Matching - Seeing is Believing, Or is it?** *The Journal of Heart and Lung Transplantation, 37 (4), S402-S403.*

48. 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.*

49. 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.* $**$

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

51. 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.*

52. 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.*

53. 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.*

54. 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.*

55. 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.* $**$

56. 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.*

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

58. D. Dermitzaki, F. Chaniotaki, O. Fraidaki, Y. Kamarianakis, A. Papaioannou and A. Askitopoulou (2002) **ASA and severity of postoperative pain are prognostic factors for postoperative cardiovascular & respiratory complications.** *European Journal of Anaesthesiology, 19, 211-212.*

MANUSCRIPTS SUBMITTED OR IN PREPARATION

59. H.O. Gao, Y. Kamarianakis and B. Holmén (2026) **Transportation Emissions meet Data Science: Statistical Analysis of Real-World experiments.** *Cambridge University Press (in progress).*

60. E. Dretaki, G. Avlonitis, M. Kotsyfakis, A. Doxa and Y. Kamarianakis (2026) **Modeling species abundance with subagging-based adaptive shrinkage.** *Environmetrics, submitted for publication.*

61. P. Bonfini, K. Kovlakas, A. Litsas, Y. Kamarianakis, K. Stavrakakis and N. Schetakis (2026) **Longest Run: a metric to assess forecasting horizons in time series.** *International Journal of Forecasting, submitted for publication.*

62. P. Anastasakis ♠, Y. Kamarianakis, M. Velegrakis and F. Gaitis (2026) **Machine Learning-Based Prediction of Olive Oil Sensory Evaluation.**

63. J. Xhixho, E. Dretaki, M. Giacomazzo and Y. Kamarianakis (2026) **Bayesian vs Frequentist regularization for subset ARMA selection.**

64. Y. Kamarianakis, E. Dretaki and J. Xhixho (2026) **Maximum-Entropy-Bootstrap-based adaptive shrinkage for subset ARMA selection.**

65. S. Cahyaningtias ♠, Y. Kamarianakis, P. Jevtic and K. Cupido (2026) **Multi-population Mortality Modeling with Space-Time-Age Group Filtering.**

66. R. Buscaglia, Y. Kamarianakis and N. Garbett (2026) **Segment-wise nonparametric classification of multivariate functional data: lupus identification using plasma thermograms.**

67. M. Wang, Y. Kamarianakis and M. Georgescu (2026) **Spatio-temporal eigenvector filtering: application to the evaluation of regional climate models.**

BOOK REVIEWS

68. Y. Kamarianakis (2013) **Ergodic control of Diffusion Processes** by A. Arapostathis, V. S. Borkar and M.K. Ghosh. *Journal of Applied Statistics, 40, 921-922.*

69. Y. Kamarianakis (2012) **The Oxford Handbook of Economic Forecasting** edited by M.P. Clements and D.F. Hendry. *Journal of Applied Statistics, 39, 2303-2304.*

CONFERENCE PROCEEDINGS

70. Y. Kamarianakis, Y. Pantazis, E. Kalligiannaki, K. Kotsovos, I. Gereige, M. Abdullah, A. Tzavaras and T. Katsaounis (2022) **Day-ahead forecasting of solar irradiance: KNN-based ensembles.** 8th World Conference on Photovoltaic Energy Conversion.

71. Y. Pantazis, E. Kalligiannaki, Y. Kamarianakis, K. Kotsovos, I. Gereige, M. Abdullah, A. Jamal, A. Tzavaras and T. Katsaounis (2022) **Efficiency evaluation and comparisons of solar cell technologies based on measurements from the Arabian peninsula.** EuroSun2022: ISES and IEA SHC International Conference on Solar Energy for Buildings and Industry.

72. Y. Kamarianakis, Y. Pantazis, E. Kalligiannaki, K. Kotsovos, I. Gereige, M. Abdullah, A. Tzavaras and T. Katsaounis (2022) **Day-ahead forecasting of solar irradiance & PV power output through Statistical Machine Learning Methods.** Saudi Arabia Smart Grid (SASG).

73. N. Nikoloudakis, S. Stagakis, Z. Mitraka, Y. Kamarianakis, N. Chrysoulakis, G. Kochilakis and N. Spyridakis (2018) **Estimation of urban air temperature spatial patterns based on sensors network observations and satellite derived predictors.** SPIE Remote Sensing Proceedings Vol. 10793: Remote Sensing Technologies and Applications in Urban Environments III; doi: 10.1117/12.2326406

74. M. Wang ♠, Y. Kamarianakis, M. Georgescu and A. Mahalov (2016) **Spatio-temporal modeling for regional climate model comparison: application on perennial bioenergy crop impacts.** JSM Proceedings, Section on Statistics and the Environment, Alexandria VA: American Statistical Association, 2886-2898.

75. L. Wynter, S. Blandin, B.M. Trager, Y. Yu, Y. Kamarianakis, J. Coldefy, D. Marquois and T. Baudel (2015) **Incident detection and incident-impacted traffic prediction for urban road networks, application to GrandLyon.** 22nd Intelligent Transportation Systems World Congress Proceedings. Bordeaux, France, October 2015.

76. L. Wynter, S. Blandin, B.M. Trager, Y. Yu, S. Jabari, Y. Kamarianakis, J. Coldefy, D. Marquois and T. Baudel (2015) **Traffic estimation and prediction for urban road networks, application to GrandLyon.** 22nd Intelligent Transportation Systems World Congress Proceedings. Bordeaux, France, October 2015.

77. A. Beloconi, N. Benas, N. Chrysoulakis and Y. Kamarianakis (2015) **Combined Use of Satellite Observations with Urban Surface Characteristics to Estimate PM Concentrations by Employing Mixed-Effects Models.** Advances in Atmospheric Science and Applications (ATMOS; organized by the European Space Agency) Proceedings. Heraklion, Crete, June 2015.

78. A. Beloconi, Y. Kamarianakis, and N. Chrysoulakis (2015) **Urban aerosol concentrations from MERIS/AATSR synergy: a preparatory study for Sentinel 3.** In Book of Abstracts of the Mapping Urban Areas from Space (MUAS 2015) Conference (p. 33), organized by the European Space Agency in Frascati, Italy, November 2015.

79. Y. Kamarianakis (2014) **Space-time modeling of traffic variables with adaptive LASSO.** JSM Proceedings, Section on Statistical Learning and Data Mining. Alexandria VA: American Statistical Association, 2732-2738.

80. 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. ∗

81. 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.

82. 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.

83. 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.

84. 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.

85. 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.

86. 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.

87. 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.

88. 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.

89. 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.

90. 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.

91. 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.

92. 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.

93. 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.

94. 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.

95. 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.

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

97. 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.

98. 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.

99. 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.

100. 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.

INVITED PRESENTATIONS

— Seminar on risk prediction models with high-dimensional data. Postgraduate Program "Statistics and Actuarial-Financial Mathematics", University of the Aegean, March 2026.

— Guest presentation, Eye Tracking + Data Science, Athens Institute of Ophthalmology, Dec. 2024.

— Guest lecture on Wind-Farm Power-Output Forecasting, International Young Scientists Conference in Computational Science, June 2021.

— Seminar on forecast combination schemes, Dept. of Statistics, Athens U. of Economics and Business, May 2021.

— Seminar on space-time econometrics, Dept. of Economics, U. of Crete, March 2019.

— Keynote Lecture, 7th International Young Scientists Conference in Computational Science, Heraklion Crete, July 2018.

— Seminar on Space-Time Urban Data Analytics, NYU Abu Dhabi, April 2016.

— 4th Rutgers Applied Probability Conference, Rutgers Business School, Oct. 2015.

— Statistics Meeting in memory of V.K. Klonias, U. of Crete, June 2015.

— Seminar on Traffic Forecasting and Incident Detection, Berkeley Transp. Systems, Feb. 2013.

— Seminar on Statistical Modeling of Network Flows, ASU SoMSS, Feb. 2013.

— Seminar on Network Flow Forecasting, Dow AgroSciences, Indianapolis, Sept. 2012.

— Seminar on Traffic Forecasting and Incident Detection, Gradiant: Centro Tecnoloxiko de Telecomunication de Galicia, Feb. 2012.

— Seminar on Traffic Forecasting, IBM Research, Dublin, Dec. 2011.

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

CONTRIBUTED TALKS AND POSTERS[3]

— Greeks in AI 2025, Athens, July 2025. ∗

— EuroSun2022: ISES and IEA SHC International Conference on Solar Energy for Buildings and Industry, Kassel, Germany, Sept. 2022. ∗

— 13th Intern. Symposium on Health Informatics and Bioinformatics, Istanbul, Oct. 2020. ∗

— 32nd European Meeting of Statisticians, Palermo, July 2019.

— 39th International Symposium on Forecasting, Salonica, June 2019.

— 32nd Panhellenic Statistics Conference, Ioannina, June 2019.

— 99th Annual Meeting of the American Meteorological Society, Phoenix, Jan. 2019. ∗

[3] ∗ presented by co-author.

— ISBIS 2018 Meeting on Statistics in Business and Industry, Piraeus, July 2018.

— AGU Fall Meeting, New Orleans, December 2017. ∗

— 61st World Statistics Congress, Marrakesh, July 2017.

— Joint Mathematics Meetings, Atlanta, January 2017. ∗

— Joint Statistical Meetings, Chicago, August 2016. ∗

— European Space Agency Living Planet Symposium, Prague, May 2016. ∗

— Transp. Engineering Seminar, ASU Fulton School of Engineering, Nov. 2015.

— Joint Statistical Meetings, Seattle, August 2015. ∗

— 35th International Symposium on Forecasting, Riverside, June 2015. ∗

— Joint Statistical Meetings, Boston, August 2014.

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

— Colloquium, Department of Mathematics, University of Crete, June 2014.

— 92nd annual meeting of the Transp. Research Board, Washington D.C., Jan. 2013.

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

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

— 90th annual meeting of the Transp. Research Board, Washington D.C., Jan. 2011.

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

— 89th annual meeting of the Transp. Research Board, Washington D.C., Jan. 2010.∗

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

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

— 12th Conference on Applied Stochastic Models and Data Analysis, Crete, May 2007.

— Department of Economics Seminar, University of Crete, Nov. 2006.

— EUREAL workshop, Glasgow, Sept. 2006.

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

— European Regional Science Association Conference, University of Thessaly, Aug. 2006.

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

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

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

— 84th annual meeting of the Transp. Research Board, Washington D.C., Jan. 2005.∗

— Stochastic Finance Conference, Lisbon, September 2004.

— Young Researchers Meeting, HellasGIs Association, NTUA Athens, Jan. 2004.

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

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

— REAL Seminar, University of Illinois at Urbana Champaign, April 2003.

— XIIIe Journees du Sesame, Gemma Univ. de Caen Basse-Normandie, Sept. 2003.∗

— 82nd annual meeting of the Transp. Research Board, Washington D.C., Jan. 2003.

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

RESEARCH PROJECTS

— ResTick: Predictive models for tick and CCHFV abundance (2025-2028). Funding Source: EU (Total Budget 6M euros, FORTH budget 1M). co-Principal Investigator.

— FOR-SOLAR: Statistical and Machine learning methods for day-ahead power output forecasting in grid connected and off-grid PV systems (2025-2026). Funding source: Saudi Aramco (250K euros). co-Principal Investigator.

— NEMO-Tools: Next-generation monitoring and mapping tools to assess marine ecosystems and biodiversity (2024-2025). Funding Source: Hellenic Foundation for Research and Innovation (Total Budget 400K euros, FORTH budget 70K). co-Principal Investigator.

— smartHEALTH: European Digital Innovation Hub on Precision Medicine and Innovative E-health Services (2024-2025). Funding Source: EU (Total Budget 3.6M euros). co-Principal Investigator.

— Data Landscaping: Traffic and Mobility Data Sources of Official Statistics (2022). Funding Source: Eurostat (40K euros). Principal Investigator.

— SOLAR-P: Evaluation of alternative solar panel technologies, computation of irradiance daily profiles (2021-2022). Funding source: Saudi Aramco and KAUST (60K euros). co-Principal Investigator.

— WNRG: Forecasting hourly wind-farm outputs based on wind-speed predictions from alternative providers (2020). Funding source: EREN-Hellas (40K euros). Principal Investigator.

— MCTP: Mentoring Through Critical Transition Points in the Mathematical Sciences (2016). Funding Source: NSF (1M $); PI: E. Kostelich. Mentored six Honors students in research related to applications of time-series and spatial regression models.

— EASM-3: Physics Based Predictive Modeling for Integrated Agricultural and Urban Applications (2014-1016). Funding Sources: NSF, USDA (3M $); PI: A. Mahalov. Senior Scientific Personnel responsible for developing statistical models for the investigation of the Urban Heat Island phenomenon in Phoenix, AZ.

— 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.

TEACHING[4]

— Mathematical and Computational Statistics (DAMSL 102), University of Crete, Fall 2023, Spring 2025, Spring 2026. Graduate course based on: "Computational Statistics" (2nd Edition), by Givens and Hoeting, "The Elements of Statistical Learning", by Hastie, Tibshirani and Friedman, "Statistical Computing with R" by Rizzo and "The Art of R Programming" by Matloff.

[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.

— Applied Bayesian Statistics, Department of Applied Mathematics, University of Crete, Fall 2023, Fall 2024. Graduate course based on: "A First Course in Bayesian Statistical Methods" by Hoff and "Applied Bayesian Statistics (With R and OpenBUGS Examples)" by M.K. Cowles.

— Time Series Analysis, Data Analysis & Machine-Statistical Learning program, University of Crete, Spring 2024. Graduate course based on: "Introductory Time Series with R", by Metcalfe and Cowpertwait, "Time Series analysis and its Applications", by Shumway and Stoffer, "Time Series Analysis with Applications in R" by Cryer and Chan and "Econometrics" by Hansen.

— Applied Regression Analysis (STP 530), Arizona State University, Spring 2014 *(4.4)*[5], Spring 2015 *(4.8)*, Fall 2015 *(3.9)*, Fall 2016 *(4.4)*, Spring 2017 *(4.4)*, Fall 2017 *(3.7)*, Spring 2018 *(4.0)*. Graduate course based on: "Applied Linear Regression Models" (5th Edition), by Kutner, Nachtsheim, Neter, and Li, "A Modern Approach to Regression with R" by S. Sheather and "An Introduction to Statistical Learning: with Applications in R" by James, Witten, Hastie and Tibshirani.

— Computational Statistics (STP 598), Arizona State University, Fall 2014 *(3.9)*, Fall 2015 *(4.3)*, Fall 2016 *(4.3)*, Fall 2017 *(3.7)*. Graduate course based on: "Computational Statistics" (2nd Edition), by Givens and Hoeting, "The Elements of Statistical Learning", by Hastie, Tibshirani and Friedman, "Statistical Computing with R" by Rizzo and "The Art of R Programming" by Matloff.

— Bayesian Statistics (STP 598), Arizona State University, Spring 2016 *(4.8)*. Graduate course based on: "A First Course in Bayesian Statistical Methods" by Hoff.

— 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).

[5]Average course ratings per semester are shown in parentheses; 5 is best.

SUPERVISION

— Postdoctoral Researchers

- A. Doxa (2019-2021)

— Ph.D. Theses

- R. Buscaglia (currently, Asst. Prof. NAU), 'Supervised and ensemble classification of multivariate functional data: Application to Lupus diagnosis' (2018).
- M. Giacomazzo (currently Asst. Prof. UNC) 'Three Essays on Shrinkage Estimation and Model Selection of Linear and Nonlinear Time Series Models' (2018).
- M. Wang (co-advisor: Matei Georgescu), 'Spatio-temporal Statistical Modeling: with Application on Energy Resources and Their Environmental Impacts' (2018).

— M.Sc. Theses and Projects

- G. Zempilis , 'Subset ARMA selection with limited data: adaptive shrinkage with maximum entropy bootstrap' (2026).
- F. Kalyvianaki, 'Risk prediction models with high dimensional data: adaptive shrinkage with subagging' (2026).
- I. Stasoulli, 'Linear versus Nonlinear Time Series Models: Application to FOREX forecasting' (2026).
- J. Xhixho, 'Bayesian estimation of ARMA coefficients with shrinkage priors' (2025).
- P. Evagelidakis, 'A Comparative Analysis of Robust Penalized Estimators for Periodic Time Series' (2025).
- E. Dretaki, 'Robust Subset ARMA selection with penalized estimators' (2024).
- A. Reyes-Rodriguez (co-advisor with Theo Damoulas), 'Time Series with Mixed Spectra' (2018).
- X. Jiang, 'Investigating the Urban Heat Island Phenomenon with Linear Mixed Effects Models' (2017).
- H. Zhang, 'Forecasting Vehicular Traffic with Adaptive LASSO' (2016).
- J. Cortes, 'Predicting Thrombus Growth with Spatial Regressions' (2016).
- M. van Schaijic, 'Adaptive Penalized Estimation of Piecewise Linear Time-Series Models' (2015).
- Q. Wang, 'Statistical Analysis of Basketball Games using Network Metrics and Quantile Regression' (2015).
- J. Liu, 'Harmonic Analysis of Time Series with Adaptive LAD-LASSO' (2015).
- H. Wang, 'Forecasting High-Frequency Time Series: Application on Urban Traffic Volumes' (2015).
- S. Papadogiannis (co-advisor with P. Prastacos and D. Kritikou) 'Optimal Variable Selection in Regression' (2007).

- V. Karatzias (co-advisor with P. Prastacos and D. Kritikou), 'Spherically Symmetric Shrinkage Estimators' (2006).

— B.Sc. and Honors Theses

- V. Mouteveli, 'Robust Predictive Modeling with Time Series Regressions' (2026).
- L. Stavgiannoudaki, 'Logistic Regressions on Principal Components: Supervised classifiers for olive oil samples' (2025).
- L. Dramitinos, 'Robust Principal Component Regression with Application to the Prediction of Olive Oil Sensory Attributes' (2025).
- S. Karyotaki, 'Spurious time series regressions: Simulation experiments and application to stock market index forecasting' (2025).
- C. Mavrikakis, 'Subsampling-based model selection' (2024).
- I. Katsikis, 'Linear versus logistic regression for binary dependent variables' (2024).
- M. Kazakis, 'Predictive modeling with serially correlated observations' (2023).
- P. Anastasakis, 'Predictive models with asymmetric loss functions' (2023).
- Y. Maris, 'Supervised classification with parametric models' (2023).
- E. Dretaki, 'High-dimensional data analysis' (2022).
- M. Anthoulaki, 'Lasso-type estimators for linear predictive models' (2022).
- P. Karouzaki, 'Robust linear predictive models' (2022).
- D. Katsaounis, 'Regression model building: stepwise versus penalized strategies' (2021).
- M. Athanasiadis (co-advisor with P. Prastacos), 'Multivariate statistical methods with application to Geodemography' (2019).
- V. Etikala, 'Short-term Forecasting with Autoregressive Models' (2018).
- J. Mora, 'Harmonic Analysis of Time Series' (2017).
- J. Harrington (co-advisor with Dieter Armbruster), 'Statistical Analysis of Basketball Games and Basketball Simulators' (2016).
- D. Kontos (co-advisor with P. Prastacos), 'Classification of Greek towns: Application of principal components analysis and clustering techniques' (2004).

— Ph.D. Advisory committee

- C. Delos Santos (SoMSS, ASU), 'Spatial GARCH models'.
- S. Cahyaningtias (SoMSS, ASU), '4D spatiotemporal models with eigenvector filtering'.
- N. Cho (School of Sustainable Engineering, ASU), 'Long-Term Performance Benefits of Design-Build Applied to Transportation Projects'.
- G. Tarr (School of Education, ASU), 'Conceptualization of Variability'.
- Z. Wang (SoMSS, ASU), 'Locally D-optimal Designs for Generalized Linear Models' (2018).
- M. Dassanayake (SoMSS, ASU), 'A Study of Components of Chi-Square Based on Marginal Distributions of Cross-Classified Tables for Binary Variables' (2018).

– J. Plasencia (School of Biomedical Engineering, ASU), 'Development of a Novel Virtual Tool for Donor Heart Fitting' (2018).

– C. Irimata (SoMSS, ASU), 'Essays on the Identification and Modeling of Variance' (2018).

– K. Irimata (SoMSS, ASU), 'Three Essays on Correlated Binary Outcomes: Detection and Appropriate Models' (2018).

– B. Wang (SoMSS, ASU), 'Three Essays on Comparative Simulation in Three-level Hierarchical Data Structure' (2017).

EDITORIAL ACTIVITY

— *2023-2025:* Associate Editor, *Frontiers in Environmental Science - Big Data, AI, and the Environment.*

— *2019-2025:* Associate Editor, *IEEE Transactions on Intelligent Transportation Systems.*

— *2013-2018:* Editorial Advisory Board, *Transportation Research Part C: Emerging Technologies.*

— Peer Reviewer for Singapore's Urban Mobility Grand Challenge Grant Call (2018), for the Polish National Science Center (2018) and for the Hellenic Foundation for Research & Innovation (2019).

— Refereeing[6]: *Acta Geophysica (1), Advances in Data Analysis and Classification (1), Applied Energy (1), Applied Mathematical Modelling (1), Applied Stochastic Models in Business and Industry (1), Atmospheric Pollution Research (1), Biometrika (1), Communications in Statistics: Theory and Methods (3), Complexity (1), Computational Statistics and Data Analysis (1), Computer Aided Civil and Infrastructure Engineering (1), Computers Environment and Urban Systems (9), Ecological Informatics (1), Electrical Engineering (1), Energy (1), Energy Conversion and Management (1), Entropy (1), Environmental and Ecological Statistics (1), Environmental Modeling and Software (1), European Journal of Operational Research (12), Frontiers in Artificial Intelligence (1), Frontiers in Energy Research (1), Hydrological Sciences Journal (1), IEEE Transactions on Intelligent Transportation Systems (8), International Journal of Data Science and Analytics (1), International Journal of Geographical Information Science (3), International Journal of Production Economics (1), International Journal of Remote Sensing (1), International Regional Science Review (1), ISPRS International Journal of Geo-Information (1), Journal of Advanced Transportation (1), Journal of Applied Statistics (1), Journal of Atmospheric and Solar-Terrestrial Physics (1), Journal of Cleaner Production (1), Journal of Econometrics (1), Journal of Geophysical Research - Atmospheres (1), Journal of Hydrology: Regional Studies (1), Journal of the Royal Statistical Society: Series C (Applied Statistics) (1), Journal of Traffic and Transportation Engineering (1), Mathematics MDPI (1), PLOS ONE (2), Quantitative Finance (4), Regional Studies (2), Remote Sensing (2), Remote Sensing of Environment (3), Renewable Energy (3), Research in Statistics (1), Review of Economic Dynamics (1), Review of Regional Research (1), Revista*

[6]Number of papers in parentheses.

Colombiana de Estadistica (1), Scientific Reports (2), Sensors (1), Simulation: Transactions of the Society for Modeling and Simulation International (2), Simulation Modeling Practice and Theory (1), Solar Energy (1), Solar Energy Advances (1), Statistica Neerlandica (1), Stochastic Environmental Research and Risk Assessment (1), Sustainability (1), Technometrics (1), The Annals of Regional Science (1), Transportmetrica A: Transport Science (2), Transportation Research Part C (49), Transportation Research Record (6), Transportation Science (1), Water Resources Research (1).

— Book proposal reviews: CRC Press, Taylor and Francis Group (1).

ORGANIZATION OF CONFERENCES AND SYMPOSIA

— Organizing Committee Chair, 15th FORTH Scientific Retreat, Heraklion, 2026.

— Scientific Committee and Session Organizer, EUROSTAT: New Techniques and Technologies for Statistics, Brussels, 2021.

— Organizing Committee, 12th FORTH Scientific Retreat, Patras, 2019.

— Scientific Committee, 6th International Young Scientist Conference on High Performance Computing and Simulation, Heraklion, 2018.

ADMINISTRATIVE ACTIVITIES

— Deputy Director, IACM-FORTH (2026-present).

— Chair of the Research Ethics Committee of FORTH (2026-present).

— Member of FORTH's committee on Gender Equality and Anti-Discrimination (2025-present).

— Member of FORTH's committee which aims at HR-Logo (HR Excellence in Research Award) certification (2022-present).

— Member of the Scientific Council, IACM-FORTH (2018-present).

— Graduate Admissions Committee, Data Analysis & Machine-Statistical Learning Master's Program, UoC & FORTH (2023-2025).

— Administrative Board, Researchers' Association of FORTH (2019-2021).