Department of Civil Engineering and Geomatics Cyprus University of Technology Achilleos 1 Bldg., 1st Floor 2-8 Saripolou Str., 3036 Lemesos, CYPRUS ORCID: 0000-0003-4222-8567 Tel: +(357) 25002624 Fax: +(357) 25002769 phaedon.kyriakidis@cut.ac.cy www.cut.ac.cy/ceg http://geospatialanalytics.cut.ac.cy

Phaedon C. Kyriakidis Curriculum Vitae

Updated on: September 2021

Education

- Ph.D.: Department of Geological & Environmental Sciences, Stanford University, U.S.A. Specialization: Geostatistics in the Earth Sciences. Thesis advisor: Prof. André G. Journel.
- B.Sc. (Ptychion): Department of Geology, Aristotelian University of Thessaloniki, Greece.

Professional Appointments

| 2020- | Research Coordinator, Eratosthenes Centre of Excellence |
|---------|--|
| 2017-20 | • Dean, Faculty of Engineering and Technology, Cyprus University of Technology, Cyprus |
| 2016- | • (co)Director, MSc Program in Geoinformatics and Geospatial Technologies |
| 2016-17 | • Chair, Dept. of Civil Engineering and Geomatics, Faculty of Engineering and Technol- |
| | ogy, Cyprus University of Technology, Cyprus |
| 2015-18 | • Adjunct Professor, Dept. of Geography, University of California Santa Barbara, U.S.A. |
| 2015- | • Professor, Dept. of Civil Engineering and Geomatics, Faculty of Engineering and Tech- |
| | nology, Cyprus University of Technology, Cyprus |
| 2012-14 | • Graduate Advisor (Director of Graduate Studies), Dept. of Geography, University of |
| | California Santa Barbara, U.S.A. |
| 2012-14 | • Vice Chair, Dept. of Geography, University of California Santa Barbara, U.S.A. |
| 2012-15 | Professor, Dept. of Geography, University of California Santa Barbara, U.S.A. |
| 2010-12 | • Director of Graduate Studies Program in: Geography and Applied Geo-Informatics, |
| | Dept. of Geography, University of the Aegean, Greece. |
| 2010-15 | • Professor of Spatial Analysis, Dept. of Geography, University of the Aegean, Greece. |
| 2009-10 | • Instructor on short-term contract at the Professorial level (presidential decree |
| | 407/1982), Dept. of Geography, University of the Aegean, Greece. |
| 2008-09 | • Graduate Advisor (Director of Graduate Studies), Dept. of Geography, University of |
| | California Santa Barbara, U.S.A. |
| 2008-09 | Vice Chair, Dept. of Geography, University of California Santa Barbara, U.S.A. |
| 2005-12 | • Associate Professor, Dept. of Geography, University of California Santa Barbara, U.S.A. |
| | on leave-of-absence (without salary) from September 2009 to December 2012. |
| 2001-13 | Faculty Staff, Earth Sciences Division, Berkeley National Laboratory, U.S.A. |
| 2001-05 | • Assistant Professor, Dept. of Geography, University of California Santa Barbara, U.S.A. |

Professional Appointments

- Post-doctoral Fellow, Earth Sciences Division, Berkeley National Laboratory, U.S.A.
- Graduate Research Assistant, Dept. of Geological & Environmental Sciences, Stanford University, U.S.A.
- Visiting Graduate Research Assistant (June-August), National Center for Geographic Information and Analysis (NCGIA), University of California Santa Barbara, U.S.A.
- Visiting Graduate Research Assistant (June-August), Earth and Environmental Sciences Division GeoAnalysis (EES-5) Group, Los Alamos National Laboratory, U.S.A.

Scientific Recognition & Service

- Best poster award: "Enhancing Human Security through the GeoSpatioTemporal Profile Assessment Tool" (lead-author Savvas Chrysoulidis), presented (on-line) at AGILE 2021: 24th Conference on Geoinformation Science, Annual Conference of the Association of Geographic Information Laboratories in Europe (AGILE), on June 2021 on-line.
- Within top 2% of researchers worldwide across scientific fields, according to study published in PLOS BIOLOGY https://doi.org/10.1371/journal.pbio.3000918. Composite index across scientific fields = 3.365, and associated overall rank = 116790. Within top 1% of researchers worldwide in the subfield of Geological & Geomatics Engineering. Rank of composite index in subfield = 440, among 44176 authors considered in that subfield. All scores reported are computed without considering self-citations.
- 2019 Excellence Hubs program Cyprus Research and Innovation Foundation: The project proposal SaRoCy "Delineating probable sea routes between Cyprus and its surrounding coastal areas at the start of the Holocene: A simulation approach", was ranked 2nd out of a total of 65 proposals submitted to the Social Sciences and Humanities scientific area of the "Excellence Hubs" Program of the Cyprus Research and Innovation Foundation, and received €150,000 in funding.
- Best paper award: "Beyond pairs: Generalizing the geo-dipole for quantifying spatial patterns in geographic fields", co-authored by Rui Zhu, Phaedon Kyriakidis, and Krzysztof Janowicz, and presented at AGILE 2017: 20th Conference on Geoinformation Science, Annual Conference of the Association of Geographic Information Laboratories in Europe (AGILE), on May 2017, in Wageningen, The Netherlands.
- 2017 Teaming for Excellence project MedSTACH The proposal entitled Eastern Mediterranean Science and Technology Centre of Excellence for Archaeology and Cultural Heritage, with acronym MedSTACH and budget €400,000 from Horizon 2020, was ranked first attaining an excellent score (15/15) out of a total of 208 proposals submitted to the Phase 1 Teaming for Excellence call. As for the Teaming Phase 2 evaluation procedure, the MedSTACH proposal passed all the individual evaluation criteria thresholds, and was invited (along with a set of 25 other Phase 2 proposals) to Brussels for a panel hearing on February 20, 2019. The final score attained by the MedSTACH proposal, however, was not sufficient to lead to its selection for funding, given the budgetary resources available for the Teaming Phase 2 call.

- Best poster award: "Delineating water quality regions from remotely sensed data using textural information" (co-authored with Vasios and Kitsiou), and presented at the *Third International Conference on Remote Sensing and Geoinformation of Environment (RSCy 2015)*, on March 16-19 2015, in Paphos, Cyprus.
- Best paper award: "Efficient simulation of (Log)Normal Random Fields for Hydrogeological Applications" (co-authored with Gaganis), published in *Mathematical Geosciences*, 45(6): 531-556. Selected as the best paper for 2013 (out of a total of 48 published papers); see the related announcement of the International Association for Mathematical Geosciences (IAMG) in the November 2014 issue of Mathematical Geosciences, 46(8): 1035-1037, DOI 10.1007/s11004-014-9572-8, as well as in the biannual IAMG Newsletter No. 89 (Winter 2014).
- 2012 Research Excellence program Greek General Secretariat for Research and Technology: The project proposal Advances in Geostatistics for Environmental Characterization and Natural Resources Management was selected for funding (€250,000) in the 1st national call for scientific research excellence, "Aristeia", administered by the Greek General Secretariat for Research and Technology. This proposal was one of the 206 proposals selected for funding out of a total of 1497 proposals submitted. It was also one of the 14 proposals (out of the 206 retained) that was funded as interdisciplinary – Primary disciplinary field: 01. Mathematics, Statistics, Informatics and Computer Science; Secondary disciplinary field: 10. Energy and the Environment.
- Best paper award: "Geostatistical Regression for Areal Data" (co-authored with Nagle), and published in the proceedings of the 9th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Leicester, UK, July 20-23.
- Exemption (until 2003) from the obligatory military services of Greece due to distinguished scientific activities abroad.
- First place in written competition on Statistics in Geology organized by the National Scholarship Foundation of Greece.
- Honors degree from the Department of Geology of the Aristotelian University of Thessaloniki, Greece. Highest GPA in graduating class, and among the five highest GPAs in the Department's history.

Citations to Published Work

- Number of cited documents = 82. Number of citations = 2813. h-index = 28. Number of citations excluding self citations of all (co)authors = 2559. h-index = 27. Search date: September 20, 2021.
- WebSci [Web of Science] Total number of publications = 82. Number of times cited = 2553. Number of citing articles = 2154. h-index = 26. Search date: September 20, 2021.
- Google [Google Scholar] Number of citations = 4759. h-index = 33. Search date: September 20, 2021.

Invited Keynote Speaker

| 2020 | • Delineating Probable Sea Routes between Cyprus and its surrounding Coastal Areas at the Start of the Holocene: A Simulation Approach: Objectives, Methods and Pre- liminary Results, <i>CAA-GR 2020 Sessions: Current Status and the Future of Digital Archaeology in the Eastern Mediterranean</i> , Session 1: Research and Innovation, October 9, 2020; online event organized by CAA-GR, the Greek Chapter of the international organization Computer Applications and Quantitative Methods in Archaeology. |
|---------|--|
| 2020 | Geostatistical Perspectives on Spatial Scale, Scale and Spatial Analytics Workshop, Spatial Analysis Research Center, Arizona State University, Tempe, USA, February 10-11. |
| 2019 | • Spatial Analysis and Spatial Statistics in Environment and Agriculture, 3rd Confer- ence on Geographic Information Systems and Spatial Analysis in Environment and Agriculture, Agricultural University of Athens, Greece, December 11-13. |
| 2018 | • Eastern Mediterranean Science and Technology Centre of Excellence for Archaeology and Cultural Heritage (MedSTACH): Context, Vision, Mission & Objectives, 10th Conference of the Hellenic Society for Geographical Information Systems, Athens, Greece, November 12-14. |
| 2014 | • A geostatistical framework for studying the modifiable area unit and ecological infer- ence problems, 8th Conference of the Hellenic Society for Geographical Information Systems, Athens, Greece, December 11-12. |
| 2008 | Perspectives on geostatistical downscaling, geoENV 2008: 7th International Conference on Geostatistics for Environmental Applications, Southampton, UK, September 8-10. |
| 2006 | Towards a systems approach to the visualization of spatial uncertainty, 7th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Lisbon, Portugal, July 5-7. |
| 1999 | • Stochastic imaging for assessing the impact of imprecise spatial information on ecolog- ical models, <i>International Statistics Institute (ISI) Cutting Edge Conference on Spatial</i> <i>Statistics for Production Ecology, GIS, Remote Sensing, and Modeling,</i> Wageningen, The Netherlands, April 19-21. |
| 2002 | • <u>Plenary discussant</u> : Spatial Analysis and Modeling (SAM) Specialty Group of the Association of American Geographers (AAG), 98 th Annual Meeting of the Association of American Geographers, Los Angeles, CA, March 19-23. |
| | Editorial Boards |
| 2021- | Remote Sensing, MDPI Open Access Journal, Member of Editorial Board |
| 2018- | • <i>Cartographica</i> , Canadian Cartographic Association, University of Toronto Press, Member of Editorial Board |
| 2012- | Spatial Statistics, Elsevier, Member of Editorial Board |
| 2014-17 | Geographical Analysis, Wiley, Associate Editor |
| 2007-17 | International Journal of Geographical Information Science, Taylor & Francis, Mem- ber of Editorial Board |

| | Editorials |
|---------|--|
| 2015 | • <i>ISPRS International Journal of Geo-Information</i> : Guest Editor (with Stefanakis and Liu) for a special issue on "Advances in Spatio-Temporal Data Analysis and Mining" |
| 2006-07 | • <i>Encyclopedia of GIS</i> : Field Editor for the field of <i>Spatial Uncertainty and Imprecision</i> in the encyclopedia edited by S. Shekhar and H. Xiong, and published in 2007 by Springer |
| | Scientific Committees & Panels |
| 2019-21 | • Foundation for Research and Technology - Hellas (FORTH): Evaluation Commit- tee member for the first ever call for Synergy Grants administered by FORTH, aiming to promote interdisciplinary collaboration between at least two FORTH Institutes |
| 2019 | Scientific Chair of the Geography Panel formed by the Ministry of Education, Culture and Sports of Cyprus, charged with the task of preparing written exams in the field of Geography within the context of the 2019 national System of Teacher Appointment in Secondary Education |
| 2005-06 | UCGIS GI S&T Body of Knowledge : Advisory board member for the Model Curriculum Project for Geographic Information Science & Technology, sponsored by the University Consortium for Geographic Information Science (UCGIS) NSF Geography & Regional Science DDRI panelist : Panel member for the Doc- |
| | toral Dissertation Research Improvement grants awarded by the Geography & Regional Science Program of the National Science Foundation (NSF) Offices in Scientific Organizations |
| 2019- | • Steering Committee member of CAA International, the Computer Applications & Quantitative Methods in Archaeology international organization |
| 2018- | • <u>Council member elect</u> of AGILE, the Association of Geographic Information Laborato- ries in Europe |
| 2015-16 | • <u>Board member elect</u> of HellasGIS, the Hellenic Geographic Information Systems Society |
| 2004-07 | • <u>Board member</u> of the Spatial Analysis and Modeling (SAM) specialty group of the Association of American Geographers (AAG) |
| | Membership in Scientific Committees |
| 2022 | • 1st Conference on Future Challenges in Sustainable Urban Planning & Territorial Man- agement, January 17-19, 2022 (online event) link |
| 2021 | • <u>CAA 2021</u> : Chair of the Local Organizing Committee of CAA 2021: Digital Cross- roads, Annual Conference of the International Organization Computer Applications and Quantitative Methods in Archaeology (CAA), June 14-18, 2021 (online event) link |
| 2021 | • <u>AGILE 2021</u> : Co-Chair of the Scientific Program Committee of the 24th Con- ference on Geographic Information Science, June 8-11, 2021 (online event) link |
| 2019 | • <u>AGILE 2019</u> : Chair of the Scientific Program Committee of the 22nd Conference on Geographic Information Science, Limassol, Cyprus, June 17-20, 2019 link |

| 2018 | • <u>CAA-GR 2018</u> : Chair of the Organizing Committee of the 3rd CAA-GR Confer- ence: Spreading Excellence in Computer Applications for Archaeology and Cultural |
|------|--|
| | Heritage, Limassol, Cyprus, June 19-20, 2018 link |
| 2019 | • Spatial Statistics 2019: Towards Spatial Data Science: 5th Conference on Spatial Statistics |
| 2018 | • <u>GIScience 2018</u> : 10th International Conference on Geographic Information Science, Melbourne, Australia, 28-31, August, 2018 |
| 2017 | • Spatial Statistics 2017: One world, one health: 4th Conference on Spatial Statistics |
| 2017 | • <u>IAMG 2017:</u> 18th Annual Conference of the International Association for Mathematical Geosciences |
| 2016 | <u>GIScience 2016</u>: 9th International Conference on Geographic Information Science <u>geoEnv 2014</u>: 11th International Conference on Geostatistics for Environmental Applications |
| 2015 | Spatial Statistics 2015: Emerging Patterns: 3rd Conference on Spatial Statistics 1st Conference on Geographical Information Systems and Spatial Analysis in Agriculture and Environment, Athens, Greece |
| 2014 | <u>GIScience 2014</u>: 8th International Conference on Geographic Information Science <u>geoEnv 2014</u>: 10th International Conference on Geostatistics for Environmental Applications |
| 2013 | Spatial Statistics 2013: 2nd Conference on Spatial Statistics <u>RSCy 2013</u>: First International Conference on Remote Sensing and Geoinformation of the Environment, Paphos, Cyprus |
| 2012 | 1st Conference on Spatial Analysis, Harokopeion University, Athens, Greece <u>GIScience 2012</u>: 7th International Conference on Geographic Information Science <u>geoEnv 2012</u>: 9th International Conference on Geostatistics for Environmental Appli- cations |
| 2011 | cations <u>ECQTG 2011</u>: 17th European Colloquium on Theoretical and Quantitative Geography Spatial Statistics 2011 - Mapping Global Change: 1st Conference on Spatial Statistics |
| 2010 | <u>GIScience 2010</u>: 6th International Conference on Geographic Information Science <u>Spatial Accuracy 2010</u>: 9th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences |
| 2009 | <u>IAMG 2009</u>: 2009 Annual Conference of the International Association for Mathematical Geosciences |
| | <u>StatGIS 2009</u>: GeoInformatics for Environmental Surveillance Conference <u>IGARSS 2009</u>: 2009 IEEE International Geoscience and Remote Sensing Symposium <u>ASCE/EWRI KSTAT-3 Standard</u>: Consultant to the ASCE/EWRI's Standards Committee for the development of a Standard Guideline for the geostatistical estimation and block-averaging of homogeneous and isotropic saturated hydraulic conductivity |
| 2008 | • Spatial Accuracy 2008: Member of Scientific and Organizing Committees for the 8th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences |
| | <u>IGARSS 2008</u>: 2008 IEEE International Geoscience and Remote Sensing Symposium <u>geoENV 2008</u>: 7th European Conference on Geostatistics for Environmental Applications |

| 2006 | • geoENV 2006: Member of Scientific and Organizing Committees for the 6th European |
|------|---|
| | Conference on Geostatistics for Environmental Applications |
| | • Spatial Accuracy 2006: 7th International Symposium on Spatial Accuracy Assessment |
| | in Natural Resources and Environmental Sciences |
| 2004 | <u>Geostatistics Banff 2004</u>: 7th International Geostatistics Congress |
| | • geoENV V: 5th European Conference on Geostatistics for Environmental Applications |
| | • Environmental Soil-Landscape Modeling: Member of Scientific Committee for book |
| | edited by S. Grunwald, and published by CRC Press |
| 2003 | • Geodynamics: Member of Scientific Committee for book edited by P.M. Atkinson, |
| | G.M. Foody, S.E. Darby, and F. Wu, and published by CRC Press |
| 1999 | • Assessment of Non-Point Source Pollution in the Vadose Zone: Member of Scientific |
| | Committee for book edited by D.L. Corwin, K. Loague, and T.R. Ellsworth, and pub- |
| | lished by AGU Press |
| 1998 | • geoENV II: 2nd European Conference on Geostatistics for Environmental Applications |

Grants & Contracts

- OenoWatch: Implementation of a Decision Support System using unmanned aerial systems (UASs) and establishment of a Competence Centre for innovative vine-growing to support the sustainable development of precision viticulture in Cyprus and maximize the national oenological potential. PI: Dimopoulos, European University of Cyprus. CUT-PI: Kyriakidis. Funding Source: Cyprus Research Promotion Foundation, Integrated Projects Program. Budget: €633,000. CUT budget €86,000.
- FOCASTOCK: Assessment of innovative technologies and their "readiness" for remote sensing-based estimation of forest carbon stocks and dynamics. Consultant to GMV Innovating Solutions. Funding Source: World Bank. Budget: €100,000. CUT budget €10,000.
- SaRoCy: Delineating probable sea routes between Cyprus and its surrounding coastal areas at the start of the Holocene: A simulation approach. PI: Kyriakidis. Funding Source: Cyprus Research Promotion Foundation, Excellence Hubs Program. Budget: €150,000.
- MEDSAL: Salinization of critical groundwater reserves in coastal Mediterranean areas: Identification, risk assessment and sustainable management with the use of integrated modelling and smart ICT tools. PI: Tziritis, Soil and Water Resources Institute, Hellenic Agricultural Organization "Demeter; CUT-PI: Kyriakidis. Funding Source: H2020 PRIMA Program Partnership for Research and Innovation in the Mediterranean Area through the Cyprus Research Promotion Foundation. Budget: €1.39M; Budget for CUT: €80,000.
- GEOWINDSAT: Geostatistical Downscaling of wind field predictions using high resolution satellite data. PI: Kyriakidis. Funding Source: Cyprus Research Promotion Foundation, International Collaborations Dual Targeting Program. Budget: €80,000.
- ΘAΛ-XΩP 2: Trans-border Collaboration for the application of Marine Spatial Planning. Pl: Cyprus Deputy Ministry of Shipping. CUT-Pl: Hadjimitsis. Funding Source: Interreg V-A Greece-Cyprus, Territorial Co-operation. Budget: €2.75M.

- Digitization Pilots for the Cultural Heritage of the Churches of Crete and Cyprus. PI: Holly Archdiocese of Limassol. CUT-PI: Hadjimitsis. Funding Source: Interreg V-A Greece-Cyprus, Territorial Co-operation. Budget: €0.93M.
- MedSTACH: Eastern Mediterranean Science and Technology Center of Excellence for Archaeology and Cultural Heritage. PI: Kyriakidis. Funding Source: H2020-WIDESPREAD-04-2017 - Teaming Phase 1. Budget: €400,000.
- *iMareCulture:* Advanced VR, *iMmersive serious games and Augmented REality as* tools to raise awareness and access to European underwater CULTURal heritagE. PI: Skarlatos. Funding source: Call H2020 CULT-COOP-08-2016: Virtual museums and social platform on European digital heritage, memory, identity and cultural interaction. Budget: €2.7M.
- Clima: Cultural Landscape risk Identification, Management and Assessment. P.I. Universitá degli studi della Tuscia. CUT-PI: Hadjimitsis. Funding source: Joint Programming Initiative (JPI) on Cultural Heritage. Budget: €614, 444.
- Prothego: PROTection of European Cultural Heritage from GeO-hazards. P.I. Instituto Superiore per la Protezione e la Ricerca Ambientale, Geological Survey of Italy. CUT-PI: Hadjimitsis. Funding source: Joint Programming Initiative (JPI) on Cultural Heritage. Budget: €598, 680.
- Demonstrating an Effective Marine Biodiversity Observation Network in the Santa Barbara Channel. PI: Miller, Co-PIs: Carlson, Lafferty, Rassweiler, Reed, Kyriakidis, Siegel, Iglesias-Rodriguez, Manjunath, Love, Thompson, Hildebrand, McCauley. Funding sources: NASA, NOAA. This project is funded as part of the US National Oceanographic Partnership Program federal funding opportunity "FY2014 Demonstration of a U.S. Marine Biodiversity Observation Network (Marine BON)". Budget: \$6M. Post 2015 role in project: Associate investigator (without salary).
- Collaborative Research: Thermal Controls on Ecosystem Metabolism and Function: Scaling from Leaves to Canopies to Regions. PI: Roberts, Co-I: Kyriakidis. Funding source: National Science Foundation (NSF). Amount: \$255,000. This project is part of a larger collaborative project involving Oregon State, Harvard, UPenn, UC Irvine, and UC Santa Barbara, led by Prof. Still at Oregon State, and funded by NSF's MacroSystems Biology program with an overall budget of approximately \$1M.
- Advances in Geostatistics for Environmental Characterization and Natural Resources Management. PI: Kyriakidis. Funding source: Greek General Secretariat for Research and Technology. Budget: €250,000.
- A Geostatistical Framework for Geospatial Data Analysis and Modeling Across Multiple Spatial and Temporal Scales. PI: Goodchild, Co-PI: Kyriakidis. Funding source: National Geospatial-Intelligence Agency (NGA). Budget: \$450,000.
- Modeling Soil Moisture in California Across Multiple Scales. PI: Chadwick, Co-PIs: Roberts & Kyriakidis. Funding source: Kearney Foundation of Soil Science. Budget: \$88,951.
- Remote Assessment of Giant Kelp Dynamics The Engineer of California's Near-Shore Ecosystems. PI: Siegel, Co-I: Kyriakidis. Funding source: National Aeronautics and Space Administration (NASA). Budget: \$859,049.

Grants & Contracts

| 2005-06 | • Intra-urban Industrial Location Under Institutional and Accessibility Constraints: An Empirical Approach. PI: Sweeney, Co-PI: Kyriakidis. Funding source: National Science Foundation (NSF). Budget: \$100,000. |
|---------|--|
| 2004-06 | • A Geostatistical Framework for Downscaling Spatial Data. PI: Kyriakidis. Funding source: National Science Foundation (NSF). Budget: \$125,002. |
| 2004-06 | • An Integrated, Dynamic and Predictive Model of Wildfire Risk in Southern California Using MODIS Imagery. PI: Kyriakidis, Co-PI: Schneider. Funding source: National Aeronautics and Space Administration (NASA). Budget: \$48,000. |
| 2004-07 | • Strategic Enhancement of NGA's Geographic Information Science Infrastructure PI: Goodchild, Co-I: Kyriakidis. Funding source: National Geospatial-Intelligence Agency (NGA). Budget: \$693,000. |
| 2004-05 | • Instructional Improvement Grant: An Integrated Software Environment for Enhanced Geographic Education. PIs: Sweeney and Kyriakidis. Funding source: Academic Senate University of California Santa Barbara. Budget: \$24,000. |
| 2003-05 | • A Systems Approach to the Visualization of Spatial Uncertainty. PI: Kyriakidis. Funding source: National Science Foundation. Budget: \$69,951. |
| 2002-03 | Sub-County Population and Household Projections for SCAG Sub-Regions, Cities, and Unincorporated Areas to 2025. PI: Sweeney, Co-PI: Kyriakidis. Funding source: Southern California Association of Governments (SCAG). Budget: \$74,937. |
| 2001 | • Junior Faculty Research Incentive Award. PI: Kyriakidis. Funding source: Academic Senate, University of California Santa Barbara. Budget: \$5,000. |

Publications

Edited Volumes

- Partsinevelos, P., **Kyriakidis**, P., and Kavouras, M., Eds., (2021): *Proceedings of the 24th AGILE Conference on Geographic Information Science*, AGILE: GIScience Series; Openaccess proceedings of the Association of Geographic Information Laboratories in Europe, Copernicus Publications, 2; link
- Partsinevelos, P., **Kyriakidis**, P., and Kavouras, M., Eds., (2020): *Proceedings of the 23rd AGILE Conference on Geographic Information Science*, AGILE: GIScience Series; Openaccess proceedings of the Association of Geographic Information Laboratories in Europe, Copernicus Publications, 1; link
- Kyriakidis, P., Hadjimitsis, D., Skarlatos, D., and Mansourian, A., Eds., (2019): Geospatial Technologies for Local and Regional Development, Proceedings of the 22nd AGILE Conference on Geographic Information Science, Lecture Notes in Geoinformation and Cartography, Springer International Publishing. doi:10.1007/978-3-030-14745-7. link
- Kyriakidis, P., Agapiou, A., and Lysandrou, V., Eds., (2019): Spreading Excellence in Computer Applications for Archaeology and Cultural Heritage, Proceedings of the 3rd CAA-GR Conference, 18-20 June 2018, Limassol, Cyprus, Cyprus University of Technology. ISBN 978-9963-697-36-6 (ebook); link

Scientific Reports

Gómez Giménez, M., Ballester, M. J. Y., Revilla Romero, B., Sebastián López, A., De Grandi, E. C., Dutta, O., Pinto Bañuls, E., Nieto, A. F., Pérez Ramírez, P., Fernández Carrillo, Á., Tabasco Cabezas, A., McNicol, I., Mitchard, E., Staddon, S., Vyhmeiste, E., González-Castañé, G., Kyriakidis, P., Nanos, N., and Chiappe, F. (2021): Assessment of Innovative Technologies and their Readiness for Remote Sensing-Based Estimation of Forest Carbon Stocks and Dynamics, World Bank Group, Report No. 160649, Washington D.C. link

Books

• Journel A.G., and **Kyriakidis**, P.C. (2004): *Evaluation of Mineral Reserves: A Simulation Approach*, Oxford University Press, Applied Geostatistics Series, 216p.

Peer-Reviewed Journals

- Katikas, L., Dimitriadis, P., Koutsoyiannis D., Kontos, T, and Kyriakidis, P. (2021): A stochastic simulation scheme for the long-term persistence, heavy-tailed and double period behavior of observational and reanalysis wind time-series, *Applied Energy*, 295, 116783; https://doi.org/10.1016/j.apenergy.2021.116873.
- Dai, J., Roberts, D.A., Stow, D.A., An, L., Hall, S.J., Yabiku, S.T., and Kyriakidis, P.C. (2020): Mapping understory invasive plant species with field and remotely sensed data in Chitwan, Nepal, *Remote Sensing of Environment*, 250, 112037; https://doi.org/10.1016/j.rse.2020.112037.
- Yeseul, K., **Kyriakidis**, P.C., and Park, N.W. (2020): A cross-resolution, spatiotemporal geostatistical fusion model for combining satellite image time-series of different spatial and temporal resolutions, *Remote Sensing*, 12(10), 1553; https://doi.org/10.3390/rs12101553.
- Alverti, M.N., Themistocleous, K., Kyriakidis, P.C., and Hadjimitsis, D.G. (2020): A study of the interaction of human smart characteristics with demographic dynamics and built environment: The case of Limassol, Cyprus, *Smart Cities*, 3, 48-73. https://doi.org/10.3390/smartcities3010004.
- Park, No-Wook, and Kyriakidis, P.C. (2019): A Geostatistical approach to spatial quality assessment of coarse spatial resolution remote sensing products, *Journal of Sensors*, vol. 2019, Article ID 7297593. https://doi.org/10.1155/2019/7297593.
- Poullis, C., Kersten-Oerte, M., Benjamin, J.P., Philbin-Briscoe, O., Simon, B., Perissiou, D., Demesticha, S., Markou, E., Frentzos, E., Kyriakidis, P., Skarlatos, D., and Rizvic, S. (2019): Evaluation of the "Seafarers": A serious game on seaborne trade in the Mediterranean Sea during the Classical period, *Digital Applications in Archaeology and Cultural Heritage*, 12, March 2019, e00090. https://doi.org/10.1016/j.daach.2019.e00090.
- Alverti, M.N., Themistocleous, K., Kyriakidis, P.C., and Hadjimitsis, D.G. (2018): A human centric approach on the analysis of the Smart City concept: the case study of Limassol city in Cyprus, *Advances in Geosciences*, 45, 305-320. https://doi.org/10.5194/adgeo-45-305-2018.
- Liodakis, S., **Kyriakidis**, P., and Gaganis, P. (2018): Conditional Latin hypercube simulation of (log)Gaussian random fields, *Mathematical Geosciences*, 50(2), 127-146.

- Kwak, G.-H., Park, N.-W., and **Kyriakidis**, P.C. (2018): Development of an R-based spatial downscaling tool to predict find scale information from coarse satellite products, *Korean Journal of Remote Sensing*, 34(1), 89-99.
- \$alap-Ayça, S., Jankowski, P., Clarke, C., Kyriakidis, P., and Nara, A. (2018): A meta-modeling approach for spatio-temporal uncertainty and sensitivity analysis: An application for a Cellular Automata based urban growth and land use change model, *International Journal for Geographical Information Science*, 32(4), 637-662.
- Sales, M., de Bruin, S., Herold, M., Kyriakidis, P., Souza Jr., C. (2017): A spatiotemporal geostatistical hurdle model approach for short-term deforestation prediction, *Spatial Statistics*, 21(1), 304-318, doi:10.1016/j.spasta.2017.06.003.
- Park, N.-W., **Kyriakidis**, P.C., and Hong, S. (2017): Geostatistical integration of coarse resolution satellite precipitation products and rain gauge data to map precipitation at fine spatial resolutions, *Remote Sensing*, 9(3), 255. doi:10.3390/rs9030255.
- Sifaki-Pistolla, D., Lionis, C., Georgoulias, V., Kyriakidis, P., Koinis, F., Aggelaki, S., and Tzanakis, N. (2017): Lung cancer and tobacco smoking in Crete, Greece: Reflections from a population-based cancer registry from 1992 to 2013, *Tobacco Induced Diseases*, 15(6). DOI: 10.1186/s12971-017-0114-2.
- Park, N.-W., Hong, S., **Kyriakidis**, P.C., Lee W., and Lyu S.-J. (2016): Geostatistical downscaling of AMSR2 precipitation with COMS infrared observations, *International Journal of Remote Sensing*, 37(16), 3858-3869. doi:10.1080/01431161.2016.1204031.
- López-Carr, D., Mwenda, K.M., Pricope, N.G., Kyriakidis, P.C., Jankowska, M.M., Weeks, J., Funk, C., Husak, G., and Michaelsen, J. (2016): Climate-related child undernutrition in the Lake Victoria Basin: An integrated spatial analysis of health surveys, NDVI, and precipitation data, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 9(6): 2830 2835. doi:10.1109/JSTARS.2016.2569411.
- Park, N.-W., Kyriakidis, P.C., and Hong, S.-Y. (2016): Spatial estimation of classification accuracy using indicator Kriging with an image-derived ambiguity index, *Remote Sensing*, 8(4), 320; doi:10.3390/rs8040320.
- Mwenda, K.M., **Kyriakidis**, P.C., and López-Carr D. (2015): Quantifying spatial uncertainty of population estimates: Evidence from three Tanzanian districts, *Plurimondi*, VIII, 215-221.
- Liodakis, S., **Kyriakidis**, P., and Gaganis, P. (2015): Efficient uncertainty analysis in an anisotropic three dimensional hydrogeological model of flow and transport, *Mathematics in Engineering, Science and Aerospace*, 6(4), 657-673.
- Liodakis, S., Kyriakidis, P., and Gaganis, P. (2015): Accounting for model sensitivity in controlled (log)Gaussian geostatistical simulation, *Spatial Statistics*, 14, Part C, 224-239. doi:10.1016/j.spasta.2015.05.007.
- Menzer, O., Meiring, W., Kyriakidis, P.C., and McFadden, J.P. (2015): Annual sums of carbon dioxide exchange over a heterogeneous urban landscape through machine learning based gap-filling, *Atmospheric Environment*, 101, January 2015, 312–327. doi:10.1016/j.atmosenv.2014.11.006.
- Kavroudakis, D., and Kyriakidis, P.C. (2013): "DTH 1.0": Towards an artificial intelligence system for geographical analysis of health data, *European Journal of Geography*, 4(3), 38–49.

- Kyriakidis, P.C., and Gaganis, P. (2013): Efficient simulation of (log)normal random fields for hydrogeological applications, *Mathematical Geosciences*, 45(5), 531–556. DOI 10.1007/s11004-013-9470-5.
- Palaiologou, P., Kalabokidis, K., and Kyriakidis, P. (2013): Forest mapping by geoinformatics for landscape fire behaviour modelling in coastal forests, Greece, *International Journal of Remote Sensing*, 34(12), 4466–4490.
- Hamada, Y., Stow., D.A., Roberts, D.A., Franklin, J., and Kyriakidis, P.C. (2013): Assessing and monitoring semi-arid shrublands using object-based image analysis and multiple endmember spectral mixture analysis, *Environmental Monitoring and Assessment*, 185(4), 3173–3190.
- Sales, M.H., Sousa Jr., C.M., and Kyriakidis, P.C. (2013): Fusion of MODIS images using Kriging with External Drift, *IEEE Transactions on Geoscience and Remote Sensing*, 51(4): 2250–2259.
- Cao, G., Kyriakidis, P.C., and Goodchild, M.F. (2012): Response to 'Comments on "Combining spatial transition probabilities for stochastic simulation of categorical fields" with communications on some issues related to Markov chain geostatistics', *International Journal of Geographical Information Science*, 26(10): 1741–1750.
- Cao, G., **Kyriakidis**, P.C., and Goodchild, M.F. (2011): A multinomial logistic mixed model for the prediction of categorical spatial data, *International Journal of Geographical Information Science*, 25(12): 2071–2086.
- Cao, G., **Kyriakidis**, P.C., and Goodchild, M.F. (2011): Combining spatial transition probabilities for stochastic simulation of categorical fields, *International Journal of Geographical Information Science*, 25(11): 1773–1791.
- Guan, Q., **Kyriakidis**, P.C., and Goodchild, M.F. (2011): A parallel computing approach to fast geostatistical areal interpolation, *International Journal of Geographical Information Science*, 25(8): 1241–1267.
- Legleiter, C.J., Kyriakidis, P.C., McDonald R.R., and Nelson J.M. (2011): Effects of uncertain topographic input data on two-dimensional flow modeling in a gravel-bed river, *Water Resources Research*, 47, W03518, doi:10.1029/2010WR009618.
- Husak, G.J., Michaelsen, J., Kyriakidis, P.C., Verdin, J.P., Funk, C., and Galu, G. (2011): The forecast interpretation tool – A Monte Carlo technique for blending climatic distributions with probabilistic forecasts, *International Journal of Climatology*, 31(3): 461–467.
- Nagle, N.N., Sweeney, S.H., and **Kyriakidis**, P.C. (2011): A geostatistical linear regression model for small-area data, *Geographical Analysis*, 43(1): 38–60.
- Yoo, E.-H., **Kyriakidis**, P.C., and Tobler, W. (2010): Reconstructing population density surfaces from areal data: A comparison of Tobler's pycnophylactic interpolation method and area-to-point Kriging, *Geographical Analysis*, 42(1): 78–98.
- Yoo, E.-H., and **Kyriakidis**, P.C. (2009): Area-to-point Kriging in spatial hedonic pricing models, *Journal of Geographical Systems*, 11(4): 381–406.
- Zhang, J., **Kyriakidis**, P.C., and Kelly, R. (2009): Geostatistical approaches to conflation of continental snow data, *International Journal of Remote Sensing*, 30(20): 5441–5451.
- Goodchild, M.F, Zhang, J., and **Kyriakidis**, P.C. (2009): Discriminant models of uncertainty in nominal fields, *Transactions in GIS*, 13(1): 7–23.

- Park, N.-W., and **Kyriakidis**, P.C. (2008): Geostatistical integration of different sources of elevation and its effect on landslide hazard mapping, *Korean Journal of Remote Sensing*, 24(5): 453–462.
- Yoo, E.-H., and **Kyriakidis**, P.C. (2008): Area-to-point prediction under boundary conditions, *Geographical Analysis*, 40(4): 355–379.
- Schneider, P., Roberts, D.A., and Kyriakidis, P.C. (2008): A VARI-based relative greenness from MODIS data for computing the Fire Potential Index, *Remote Sensing of Environment* 112(3): 1151–1167.
- Liu, X., Kyriakidis, P.C., and Goodchild, M.F. (2008): Population density estimation using regression and area-to-point residual Kriging, *International Journal of Geographical Information Science* 22(4): 431–447.
- **•** Legleiter, C., and **Kyriakidis**, P.C. (2008): Spatial prediction of river channel topography by Kriging, *Earth Surface Processes and Landforms* 33(6): 841–867.
- Boucher, A., Kyriakidis, P.C., and Cronkite-Ratcliff, C. (2008): Geostatistical solutions for super-resolution land cover mapping, *IEEE Transactions on Geoscience and Remote Sensing*, 46(1): 272–283.
- Zhang, J., Goodchild, M., and **Kyriakidis**, P. (2007): A conceptual framework for categorical mapping and error modeling, *Acta Geodaetica et Cartographica Sinica*, 3(8): 296–301.
- Sales, M.H., Souza Jr., C.M., Kyriakidis, P.C., Roberts, D.A., and Vidal, E. (2007): Improving spatial distribution estimation of aboveground forest biomass with geostatistics: A case study of Rondônia, Brazil, *Ecological Modelling*, 205(1-2): 221–230.
- Ekström, M., Kyriakidis, P.C., Chappell, A., and Jones, P. (2007): Spatiotemporal stochastic simulation of monthly rainfall patterns in the United Kingdom (1980-1987), *Journal of Climate*, 20(16): 4194–4210.
- Boucher, A., and **Kyriakidis**, P.C. (2007): Integrating fine scale information in superresolution land cover mapping, *Photogrammetric Engineering & Remote Sensing*, 73(8): 913–921.
- Legleiter, C., and **Kyriakidis**, P.C. (2006): Forward and inverse transformations between Cartesian and channel-fitted coordinate systems for meandering rivers, *Mathematical Geology*, 38(8): 927–958.
- Yoo, E.-H., and **Kyriakidis**, P.C. (2006): Area-to-point Kriging with inequality-type data, *Journal of Geographical Systems*, 8(4): 357–390.
- Boucher, A., and **Kyriakidis**, P.C. (2006): Super-resolution land cover mapping with indicator geostatistics, *Remote Sensing of Environment*, 104(3): 264–282.
- Kyriakidis, P.C., and Goodchild, M.F. (2006): On the prediction error variance of three common spatial interpolation schemes, *International Journal of Geographical Information Science*, 20(8): 823–855.
- Adler, P.B., Hille Ris Lambers, J., **Kyriakidis**, P.C., Guan, Q., and Levine, J.M. (2006): Climate variability has a stabilizing effect on the coexistence of prairie grasses, *Proceedings* of the National Academy of Sciences, 103(34): 12793–12798.
- Holmes, K.W., Chadwick, O.A., Kyriakidis, P.C., Silva de Filho, E.P., Soares, J.V., and Roberts, D.A. (2006): Large-area spatially explicit estimates of tropical soil carbon stocks and response to land-cover change, *Global Biogeochemical Cycles*, 20(3), GB3004, doi:10.1029/2005GB002507.

- **Kyriakidis**, P.C., and Yoo, E.-H. (2005): Geostatistical prediction and simulation of point values from areal data, *Geographical Analysis*, 37(2): 124–151.
- Holmes, K.W., Kyriakidis, P.C., Chadwick, O.A., Soares, J.V. and Roberts, D.A. (2005): Multi-scale variability in tropical soil nutrients following land-cover change, *Biogeochemistry*, 74(2): 173–203.
- Washburn, L., Clark, J., and **Kyriakidis**, P.C. (2005): The spatial scales, distribution, and intensity of natural marine hydrocarbon seeps near Coal Oil Point, California, *Marine and Petroleum Geology*, 22(4): 569–578.
- Kyriakidis, P.C., Miller, N.L., and Kim, J. (2004): A spatial time series framework for simulating daily precipitation at regional scales, *Journal of Hydrology*, 297(1-4): 236–255.
- **Kyriakidis**, P.C. (2004): A geostatistical framework for area-to-point spatial interpolation, *Geographical Analysis*, 36(3): 259–289.
- **Kyriakidis**, P.C., and Dungan, J.L. (2001): A geostatistical approach for mapping thematic classification accuracy and evaluating the impact of inaccurate spatial data on ecological model predictions, *Environmental and Ecological Statistics*, 8(4): 311–330.
- **Kyriakidis**, P.C., Kim, J., and Miller, N.L. (2001): Geostatistical mapping of precipitation from rain gauge data using atmospheric and terrain characteristics, *Journal of Applied Meteorology*, 40(11): 1855–1877.
- **Kyriakidis**, P.C., and Journel, A.G. (2001): Stochastic modeling of atmospheric pollution, a spatial time series framework. Part II: Application to monitoring monthly sulphate deposition over Europe, *Atmospheric Environment*, 35(13): 2339–2348.
- **Kyriakidis**, P.C., and Journel, A.G. (2001): Stochastic modeling of atmospheric pollution, a spatial time series framework. Part I: Methodology, *Atmospheric Environment*, 35(13): 2331–2337.
- Kyriakidis, P.C., Miller, N.L., and Kim, J. (2001): Uncertainty propagation of regional climate precipitation forecasts to hydrologic impact assessment, *Journal of Hydrometeorology*, 2(2): 140–160.
- Holmes, K.W., Chadwick, O.A., and **Kyriakidis**, P.C. (2000): Error in a USGS 30m digital elevation model and its impact on terrain modeling, *Journal of Hydrology*, 233: 154–173.
- Journel, A.G., Kyriakidis, P.C., and Mao, S. (2000): Correcting the smoothing effect of estimators: A spectral post-processor, *Mathematical Geology*, 32(7): 787–813.
- Loague, K., Gander, G.A., Van der Kwaak, J.E., Abrahams, R.H., and Kyriakidis, P.C. (2000): Simulating hydrologic response for the R-5 catchment: A never ending story, *Journal of Floodplain Management*, 1(2): 57–83.
- 5 Kyriakidis, P.C., and Journel, A.G. (1999): Geostatistical space-time models: A review, *Mathematical Geology*, 31(6): 651–684.
- Kyriakidis, P.C., Deutsch, C.V., and Grant, M.L. (1999): Calculation of the normal scores variogram for truncated Gaussian lithofacies simulation: Theory and FORTRAN code, *Computers & Geosciences*, 25(2): 161–169.
- **Kyriakidis**, P.C., Shortridge, A.M., and Goodchild, M.F. (1999): Geostatistics for conflation and accuracy assessment of digital elevation models, *International Journal of Geographical Information Science*, 13(7): 677–708.
- Wahlstrom, E., Loague, K., and **Kyriakidis**, P.C. (1999): Hydrologic response: Kaho'olawe, Hawaii, *Journal of Environmental Quality*, 28: 481–492.

Loague, K., and Kyriakidis, P.C. (1997): Spatial and temporal variability in the R-5 infiltration data set: Déjà vu and rainfall-runoff simulations, *Water Resources Research*, 33(12): 2883–2895.

Peer-Reviewed Conference Proceedings

- Kyriakidis, P., Kavroudakis, D., Fayad, P., Hadjipetrou, S., Leventis, G., and Papakonstantinou, A. (2021): Promoting the adoption of agent-based modelling for synergistic interventions and decision-making during pandemic outbreaks, AGILE GIScience Series: Open-Access Proceedings of the Association of Geographic Information Science in Europe, 2, 44, Copernicus Publications. https://doi.org/10.5194/agile-giss-2-44-2021, 2021.
- Hadjimitsis et al. (2021): 'EXCELSIOR' H2020 Widespread Teaming Phase 2 Project: Earth Observation and Geoinformatics Research and Innovation Agenda for Cultural Heritage, in: *Ioannides M., Fink E., Cantoni L., Champion E. (eds) Digital Heritage. Progress in Cultural Heritage: Documentation, Preservation, and Protection, EuroMed 2020*, Lecture Notes in Computer Science, vol 12642. Springer, Cham. doi:10.1007/978-3-030-73043-7_13.
- Hadjimitsis et al. (2021): The ERATOSTHENES Centre of Excellence (ECoE) as a digital innovation hub for Earth Observation, in: SPIE Proceedings Volume 11418, Detection and Sensing of Mines, Explosive Objects, and Obscured Targets XXV; 114180F (2020) https://doi.org/10.1117/12.2567070.
- Hadjipetrou, S., Liodakis, S., Sykioti, A., Fayad, P., Akylas, E., Park, N.-W., and Kyriakidis, P. (2020): Preliminary assessment of offshore wind speed around Cyprus based on Sentinel-1 Level 2 OCN data, in: SPIE Proceedings Volume 11524, Eighth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2020); 1152400 (2020). https://doi.org/10.1117/12.2571945.
- Chrysoulidis, S., and Kyriakidis, P. (2019): Dynamic geovisualization of population expected at points of interest over daily timescales: An application at Latsia, Nicosia, Cyprus, Proceedings SPIE 11174, Seventh International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2019), 111740E (27 June 2019); doi:10.1117/12.2535588.
- Fayad, P., Papakonstantinou, A., and Kyriakidis, P. (2019): Sampling designs for selecting points from Digital Surface Models to create Digital Terrain Models, in: Kyriakidis, P., Had-jimitsis, D., Skarlatos, D. & Mansourian, A. (Eds.), Accepted Short Papers and Posters from the 22nd AGILE Conference on Geo-information Science, Cyprus University of Technology 17-20 June 2019, Limassol, Cyprus. ISBN 978-90-816960-9-8, Publisher: Stichting AGILE.
- Chrysoulidis, S.E., and **Kyriakidis**, P.C. (2018): Personalised security: A step towards applied human security, *The 4th International Academic Conference on Human Security* (*IC4HS*) *Human Security and New Technologies*, Belgrade, Serbia, November 2-3, 2018.
- Kyriakidis, P., Agapiou A., and Lysandrou, V. (2018): Designing a geospatial technologiesenabled Eastern Mediterranean science, engineering and technology centre of excellence for archaeology and cultural heritage, in Proceedings of: *AGILE 2018: 21st Conference on Geo-Information Science*, Lund, Sweden, June 12-15, 2018.
- Liodakis, S., **Kyriakidis**, P., and Gaganis, P. (2018): Efficient geostatistical simulation for spatial uncertainty propagation, in: *AGILE 2018: 21st Conference on Geo-Information Science*, Lund, Sweden, June 12-15, 2018.

- Zhu, R., Kyriakidis, P.C., and Janowicz, K. (2017): Beyond pairs: Generalizing the geodipole for quantifying spatial patterns in geographic fields, in: A. Bregt, T. Sarjakoski, R. van Lammeren, and F. Rip (Eds.), Societal Geo-innovation: Selected Papers of the 20th AGILE Conference on Geographic Information Science, pp. 331-348, Lecture Notes in Geoinformation and Cartography, Springer.
- Skarlatos, D., Agrafiotis, P., Balogh, T., Bruno, F., Castro, F., Davidde Petriaggi, B., Demesticha, S., Doulamis, A., Drap, P., Georgopoulos, A., Kikillos, F., Kyriakidis, P., Liarokapis, F., Poullis, C., and Rizvic, S. (2016): Project iMARECULTURE: Advanced VR, iMmersive Serious Games and Augmented REality as Tools to Raise Awareness and Access to European Underwater CULTURal heritagE, in: M. Ioannides et al. (Eds.): *EuroMed 2016, Part I, Lecture Notes in Computer Science 10058*, pp. 805–813, 2016, DOI: 10.1007/978-3-319-48496-9-64.
- Themistocleous K., Cuca, B., Agapiou, A., Lysandrou, V., Tzouvaras, M., Hadjimitsis, D.G., Kyriakides, F., Kouhartsiouk, D., Margottini, C., Spizzichino, D., Cigna, F., Crosta, G., Frattini, P., Fernandez Merodo, J.A. (2016): The Protection of Cultural Heritage Sites from Geo-Hazards: the PROTHEGO project, in: M. Ioannides et al. (Eds.): *EuroMed 2016, Part II, Lecture Notes in Computer Science 10059*, pp. 91-98, doi: 10.1007/978-3-319-48974-2-11.
- Alverti, M., Hadjimitsis, D., Kyriakidis, P., and Serraos, K. (2016): Smart city planning from a "bottom-up" approach: Local communities intervention for a smarter urban environment, in: Themistocleous, K., Hadjimitsis, D., Michaelides, S., and Papadavid, G. (Eds.), *Proceedings of SPIE 9688 968819-1, Fourth International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2016)*, doi:10.1117/12.2240762.
- Liodakis, S.C., Kyriakids, P.C., and Gaganis, P. (2015): Efficient uncertainty propagation of lognormal hydraulic conductivity in a three dimensional hydrogeological model of flow and transport on very large regular grids, in: *Proceedings of the 17th Annual Conference of the International Association for Mathematical Geosciences (IAMG 2015)*, September 5-13, 2015, Freiberg (Saxony), Germany.
- Vasios, G.K., Kyriakidis, P.C., and Kitsiou, D. (2015): Measurement aggregation effects on the spatial statistics of sea surface temperature (SST) and chlorophyll (Chl-a) over the North Aegean, in: Proceedings of the 14th International Conference on Environmental Science and Technology (CEST 2015), September 3-5, Rhodes, Greece.
- Liodakis, S., Kyriakidis, P.C., and Gaganis, P. (2015): Efficient uncertainty analysis in a three dimensional hydrogeological model of flow and transport, in: *Proceedings of the* 14th International Conference on Environmental Science and Technology (CEST 2015), September 3-5, Rhodes, Greece.
- Mwenda, K., Kyriakidis, P., and López-Carr, D. (2015): Exploring HIV prevalence estimates using fine-scale population estimates: Evidence from three Tanzanian districts, in: *Proceedings of the 19th European Colloquium on Theoretical and Quantitative Geography (ECTQG2015)*, Bari, Italy, 3-7 September 2011. Draft also published in: *Plurimondi. An International Forum for Research and Debate on Human Settlements*, 7(15), 1-8.
- López-Carr, D., Mwenda, K.,M., Pricope, N.G., Kyriakidis, P.C., Jankowska, M.M., Weeks, J., Funk, C., Husak, G., and Michaelsen, J. (2015): A spatial analysis of climate-related child malnutrition in the Lake Victoria basin, in: *Proceedings of the 2015 International Geoscience and Remote Sensing Symposium (IGARSS 2015)*, July 26-31, Milan, Italy.

- Kyriakidis, P.C., Vasios, G., and Kitsiou, D. (2015): Delineating sea surface water quality regions from remotely sensed data using textural information, in: Hadjimitsis, D., Themistocleous, K., Michaelides, S., and Papadavid, G. (Eds.), *Proceedings of SPIE 9535, Third International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2015)*, 95351W (June 19, 2015); doi:10.1117/12.2192565.
- Vasios, G.K., Kyriakidis, P.C., and Kitsiou, D. (2015): Incorporating multivariate spatial association information for delineating sea water quality regions over the Aegean, in: *Proceedings of the 11th Panhellenic Symposium on Oceanography and Fisheries: Aquatic Horizons – Challenges and Perspectives*, pp 889-892, May 13-17, Mytilene, Lesvos, Greece.
- Kyriakidis, P.C., Kitsiou, D., and Kavroudakis, D. (2013): Multivariate variogram and madogram: Tools for quantifying diversity/dissimilarity in spatiotemporal data, in: E. Pardolgúzquiza, C. Guardiola-Albert, J. Hereida, L. Moreno-Merino, J.J. Durán, J.A. Vargas-Guzmán, Editors, *Mathematics of Planet Earth, Proceedings of the 15th Annual Conference of the International Association for Mathematical Geosciences*, Madrid, Spain, September 2013, Lecture Notes in Earth System Sciences, Springer, pp. 235–238.
- Zargli, E., Liodakis, S., Kyriakidis, P., and Savvaidis, A. (2013): Classification of topography using DEM data and its correlation with the geology of Greece, *First International Conference on Remote Sensing and Geoinformation of the Environment (RSCy2013)*, edited by: Diofantos G. Hadjimitsis, Kyriacos Themistocleous, Silas Michaelides, George Papadavid, Proc. of SPIE Vol. 8795, doi: 10.1117/12.2028801, Paphos, Cyprus, April 2013.
- Maina, I., Siapatis, A., Kavadas, S., Kyriakidis, P., Georgakarakos, S., and Somarakis, S. (2012): Geographic Information Systems and Generalized Additive Models for predicting potential spawning habitats of anchovy (in Greek), in *Proceedings of the 10th Panhellenic Symposium of Oceanography and Fisheries*, Athens, Greece, May 2012.
- Kavroudakis, D., and Kyriakidis, P.C. (2011): Towards an artificial intelligence health decision support system, in: *Proceedings of the 17th European Colloquium on Theoretical and Quantitative Geography (ECTQG2011)*, Harokopeio University, Athens, Greece, September 2-5, 2011.
- Kyriakidis, P.C. (2011): Popular cartographic areal interpolation methods viewed from a geostatistical perspective, in *Proceedings of the 25th International Cartographic Conference*, Paris, France, July 2011.
- Papakonstantinou, A., Varsamis, D., Soulakellis, N., and Kyriakidis, P.C. (2011): Inset Mapper: A tool for scale selection and inset placing configuration of multiple insets in island cartography, in *Proceedings of the 25th International Cartographic Conference*, Paris, France, July 2011.
- Cao, G., Kyriakidis, P.C., and Goodchild, M.F. (2009): Prediction and simulation in categorical fields: A transition probability combination approach, in: *Proceedings of the 17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, Seattle, Washington, November 2009.
- Zhang, J., Goodchild, M.F., Kyriakidis, P.C., and Rao, X. (2006): Categorical mapping and error modeling based on the discriminant space. in: J. Gong, and J. Zhang (Eds.), *Proceedings of SPIE –* Volume 6420, Geoinformatics 2006: Geospatial Information Science, 64201H.

- Kyriakidis, P.C. (2005): Sequential spatial simulation using Latin hypercube sampling, in:
 O. Leuangthong, and C.V. Deutsch (Eds.), *Geostatistics Banff 2004: Seventh International Geostatistics Congress*, Quantitative Geology and Geostatistics, 14(1): 65–74, Kluwer Academic Publishers, Dordrecht, The Netherlands.
- Kyriakidis, P.C., and Journel, A.G. (1999): Stochastic modeling of spatiotemporal distributions: Application to sulphate deposition trends over Europe, in: J. Gomez-Hernandez, A. Soares, and R. Froidevaux (Eds.), *geoENV II Geostatistics for Environmental Applications*, Quantitative Geology and Geostatistics, 10: 89–100, Kluwer Academic Publishers, Dordrecht, The Netherlands.
- Kyriakidis, P.C. (1997): Selecting panels for remediation in contaminated soils via stochastic imaging, in: E.Y. Baafi, and N.A. Schofield (Eds.), *Geostatistics Wollongong '96*, Quantitative Geology and Geostatistics, 8(2): 973–983, Kluwer Academic Publishers, Dordrecht, The Netherlands.

Peer-Reviewed Book Chapters

- Kavroudakis, D., Polydoropoulos, I., Kyriakidis, P., and Kizos, Th. (2018): Spatial patterns of accessibility between islands of the North and South Aegean regions and Attica, *The Practice of Spatial Analysis: Essays in memory of Professor Pavlos Kanaroglou*, Briassoulis, H., Kavroudakis, D., Soulakellis, N. (Eds.), Springer International Publishing AG. DOI: 10.1007/978-3-319-89806-3_5
- Kyriakidis, P. (2017): Geostatistics, The Wiley-AAG International Encyclopedia of Geography: People, the Earth, Environment and Technology, Richardson, D., Castree, N., Goodchild, M., Kobayashi, A., Liu, W., Marston, D. (Eds.), John Wiley & Sons Ltd. DOI: 10.1002/9781118786352.wbieg1159.
- Kyriakidis, P. (2016): Aggregate data, geostatistical solutions for reconstructing attribute surfaces, *Encyclopedia of GIS, 2nd Ed.*, Shekhar, S., Xiong, H., Zhou, X. (Eds.), Springer International Publishing. DOI:10.1007/978-3-319-23519-6_1645-1.
- Kavroudakis, D., and Kyriakidis, P. (2014): DTH 1.0: Towards an artificial intelligence decision support system for geographical analysis of health data, in: Koutsopoulos, K., and Photis, G. (Eds.), *Geospatial Technologies and Geographical Issues*, ISBN: 9783863874704.
- Kyriakidis, P.C., Liu, X., and Goodchild, M.F. (2004): Geostatistical mapping of thematic classification uncertainty, in: Lunetta, R.S., and Lyon, J.G. (Eds.), *Remote Sensing and GIS Accuracy Assessment*, p. 145–162, CRC Press, Boca Raton, FL. Also appearing In: *Geospatial Data Accuracy Assessment Report*, EPA/600/R-03/64, p. 171–190.
- Kyriakidis, P.C. (2001): Geostatistical models of uncertainty for spatial data, in: Hunsaker, C.T., Goodchild, M.F., Friedl, M.A., and Case, T.J. (Eds.), *Spatial Uncertainty in Ecology: Implications for Remote Sensing and GIS Applications*, p. 175–213, Springer-Verlag, New York.

Scientific Newsletters

Cao, C., Kyriakidis, P.C., and Goodchild, M.F. (2011): PhD Showcase: A geostatistical framework for categorical spatial data modeling, Newsletter of the Association for Computing Machinery Special Interest Group on Spatial Information – The SIGSPATIAL Special, 3(3), 4–9.

Book Reviews

• **Kyriakidis**, P.C. (2003): Geostatistics for Environmental Scientists, *International Journal* of Geographical Information Science, 17(2): 198–199.

Peer-Reviewed Extended Conference Abstracts

- Hadjipetrou, S., Liodakis, S., Sykioti, A., Kyriakidis, P., and Park, N.-W. (2021): Geostatistical downscaling of offshore wind speed data derived from numerical weather prediction models using higher spatial resolution satellite products, in: *Proceedings of geoENV2020, the 13th International Conference on Geostatistics and Environmental Applications*, Parma, Italy, June 18, 2021.
- Kavroudakis, D., Vasios, G. and Kyriakidis, P. (2014): Quantification of multivariate (dis)similarity in geospatial data with the use of Free/Open source software (in Greek), in: Proceedings of the 8th Panhellenic Conference of the Hellenic Association for Geographical Information Systems (HellasG.I.s), Athens, Greece, December 11-12, 2014.
- **Kyriakidis**, Ph., Polydoropoulos, I., and Kizos, Th (2014).: Global and local indicators of multivariate spatial association: A case study of accessibility between islands of the North and South Aegean prefectures and Attica, *10th International Congress of the Hellenic Geographical Society*, Thessaloniki, Greece, October 2014.
- Liodakis, S., **Kyriakidis**, Ph., and Gaganis, P. (2014): Latin hypercube simulation of hydraulic conductivity fields for efficient parameter uncertainty assessment in flow and transport problems, *10th International Congress of the Hellenic Geographical Society*, Thessaloniki, Greece, October 2014.
- Ravulaparthy, S., Goulias, K.G., Sweeney, S., and Kyriakidis, P.C. (2013): Exploring the spatial and temporal patterns of business concentration and dispersion: A case study of analysis for County of Santa Barbara, in proceedings of: 52nd Annual Meeting of Western Regional Science Association, Santa Barbara, CA, February 24-27, 2013.
- Kalabokidis, K., Palaiologou, P., and Kyriakidis, P.C. (2010): Forest fire fuels mapping by geoinformatics for fire behavior modeling, in: D.X. Viegas (Ed.), *Proceedings of the* 6th *International Conference on Forest Fire Research*, Coimbra, Portugal, November 2010.
- Kyriakidis, P.C., and Cao, G. (2010): Generating fine resolution area class maps subject to coarser resolution data constraints, in: R.S. Purves, and R. Weibel (Eds.), GIScience 2010: Extended Abstracts Volume of the 6th International Conference on Geographic Information Science, Zurich, Switzerland, September 2010.
- Kyriakidis, P.C., and Nagle, N.N. (2010): Geostatistical regression for areal data, in: N. Tate, and P. Fisher (Eds.), Proceedings of the 9th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Leicester, UK, June 2010.

- Cao, G., and Kyriakidis, P.C. (2008): Combining transition probabilities in the prediction and simulation of categorical fields, in: J. Zhang, and M.F. Goodchild (Eds.), Proceedings of the 8th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Shanghai, China, June.
- Zhang, J., Kyriakidis, P.C., and Kelly, R. (2008): Geostatistical approaches to conflation of continental snow data, in: J. Zhang, and M.F. Goodchild (Eds.), Proceedings of the 8th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Shanghai, China, June 2008.
- Boucher, A., and Kyriakidis, P.C. (2006): Geostatistical solutions for super-resolution land cover mapping, in: *Proceedings of the 2006 Annual Conference of the Remote Sensing and Photogrammetry Society*, Cambridge, UK, September 2006.
- Kyriakidis, P.C. (2006) Towards a systems approach to the visualization of spatial uncertainty, in: M. Caetano, and M. Painho (Eds.), Proceedings of the 7th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, Lisbon, Portugal, July 2006.
- Kyriakidis, P.C., Schneider, P., and Goodchild, M.F. (2005): Fast geostatistical areal interpolation, in: Y. Xie, and D. Brown (Eds.), *Proceedings of the* 8th International Conference on Geocomputation, Ann Arbor, Michigan, August 2005.
- Yoo, E.-H., and Kyriakidis, P.C. (2005): Area-to-point Kriging with inequality-type data, in: Y. Xie, and D. Brown (Eds.), *Proceedings of the* 8th International Conference on Geocomputation, Ann Arbor, Michigan, August 2005.
- Goodchild, M.F., Kyriakidis, P.C., Schneider, P., and Sifuentes, J. (2005): Uncertainty and interoperability: The areal interpolation problem. in: L. Wu, W. Shi, Y. Fang, and Q. Tong (Eds.), *Proceedings of the* 4th *International Symposium on Spatial Data Quality (ISSDQ 05)*, Beijing, China, August 2005.
- Kyriakidis, P.C, and Yoo, E.-H. (2003): Geostatistical prediction/simulation of point values from areal data, in: D. Martin (Ed.), *Proceedings of the* 7th International Conference on Geocomputation, Southampton, UK, September 2003.
- Kyriakidis, P.C., Miller, N.L., and Kim, J. (2002): A spatial time series framework for modeling daily precipitation at regional scales, in: *Proceedings of the* 82nd Annual Meeting of the American Meteorological Society, Orlando, FL, January 2002.
- Kyriakidis, P.C. (1999): Stochastic imaging for assessing the impact of imprecise spatial information on ecological models, in: *Proceedings of the International Statistical Institute (ISI) Cutting Edge Conference on Spatial Statistics for Production Ecology: GIS, Remote Sensing, and Modeling*, Wageningen, The Netherlands, April.

Peer-Reviewed Conference Abstracts

Kyriakidis, P., Nikolaidis, A., Moutsiou, D., Leventis, G., Constantinides, A., Akylas, E., Michailides, C., McCartney, C., Demesticha, S., Kassianidou, V., Zomeni, Z., Bar-Yosef Mayer, D., and Makovsky Y. (2021): Project SaRoCy – Delineating probable sea routes between Cyprus and its surrounding coastal areas at the start of the Holocene: A simulation approach – Objectives, methods and preliminary results, in: *Book of Abstracts: Geography in a Changing World*, Scientific Conference of the Department of Geography of the University of the Aegean, Greece, June 2-4, virtual event.

- Kyriakidis, P., Nikolaidis, A., Panagiotou, C., Leventis, G., Constantinides, A., Akylas, E., Michailides, C., Moutsiou, D., McCartney, C., Demesticha, S., Bitsakaki, L., Kassianidou, V., Zomeni, Z., Bar-Yosef Mayer, D., and Makovsky Y. (2021): A null model of drift-induced maritime connectivity between Cyprus and its surrounding coastal areas at the onset of the Holocene, in: Book of Abstracts CAA 2021, Computer Applications and Quantitative Methods in Archaeology (CAA) international conference, June 14-18, virtual event.
- Moutsiou, D., Kyriakidis, P., Nikolaidis, A., Leventis, G., Constantinides, A., Akylas, E., Michailides, C., Mc Cartney, C., Demesticha, S., Kassianidou, V., Zomeni, Z., and Bar-Yosef Mayer, D. (2021): Obsidian Maritime Interconnections in Early Holocene Eastern Mediterranean*, in: *Book of Abstracts of International Obsidian Conference 2021*, 30 April 2 May 2021 (virtual event); *Best poster award.
- Kyriakidis, P., Kavroudakis, D., Papakonstantinou, A., Hadjipetrou, S., Leventis, G., and Fayad, P. (2020): The role of geospatial modeling and simulation in synergistic decision-making during pandemics (in Greek), in: *Book of Abstracts of the 11th Panhellenic Conference of the Hellenic Association for Geographical Information Systems (HellasGls)*, Athens, Greece, November 18-20, 2020; ISSN: 2529-1564.
- Tziritis et al. (2020): MEDSAL Project Salinization of critical groundwater reserves in coastal Mediterranean areas: Identification, risk assessment and sustainable management with the use of integrated modelling and smart ICT tools, EGU General Assembly 2020, Online, 4–8 May 2020, EGU2020-2326, https://doi.org/10.5194/egusphere-egu2020-2326, 2020.
- Nikolaidis, A., Akylas, E., Michailides, C., Moutsiou, T., Leventis, G., Constantinides, A., McCartney, C., Demesticha, S., Kassianidou, V., Zomeni, Z., Bar-Yosef Mayer, D., Makovsky, Y., and Kyriakidis, P.: Modeling drift-induced maritime connectivity between Cyprus and its surrounding coastal areas during early Holocene, *EGU General Assembly 2020*, Online, 4–8 May 2020, EGU2020-19782, https://doi.org/10.5194/egusphere-egu2020-19782, 2020.
- Akylas, E., Gravanis, E., Nikolaidis, A., Panagiotou, C. F., Mettas, C., Kyriakidis, P., and Hadjimitsis, D.: Off-Shore wind potential in Cyprus: Towards an integrated representative geospatial database., *EGU General Assembly 2020*, Online, 4–8 May 2020, EGU2020-21656, https://doi.org/10.5194/egusphere-egu2020-21656, 2020.
- Kyriakidis, P., Agapiou A., Lysandrou, V., Kyriakides, N., and Leventis, G. (2018): Smart specialisation in support of regional development in the Eastern Mediterranean: Designing a University-led science, engineering and technology Centre of Excellence for Cultural Heritage in Cyprus, in Proceedings of: SMART-MED 2018: 3rd Euro-Mediterranean Conference-Exhibition, on: Featuring Territorial Intelligence of Small and Medium-sized Cities and Insular Communities in the Mediterranean Scenery Building Bridges between Local Endeavors and Global Developments, Larnaca, Cyprus, October, 5-6, 2018.
- Frentzos, E., Kyriakidis, P.C., and Skarlatos, D. (2018): Dynamic fastest sea route computation in support of "Seafaring in the Ancient Mediterranean" serious game, in: Book of Abstracts CAA 2018 Tübingen, 2018 Computer Applications and Quantitative Methods in Archaeology (CAA) international conference, March 19-23, Tübingen, Germany.

- Kyriakidis, P., Agapiou, A., Lysandrou, V., Kyriakides, N., Kassianidou, V., Papasavvas, G., Dikomitou-Eliadou, M., Charalambous, A., Moutsiou, T., Solomidou-Ieronymidou, M., Pilides, D., Kaldeli, A., Pantelides, P., Bevan, A., Martinon-Torres, M., Altaweel, M., and Sarris, A., (2018): MedSTACH: Eastern Mediterranean Science and Technology Centre of Excellence for Archaeology and Cultural Heritage, in: *Book of Abstracts CAA 2018 Tübingen, 2018 Computer Applications and Quantitative Methods in Archaeology (CAA) international conference,* March 19-23, Tübingen, Germany.
- Kyriakidis, P., Agapiou A., Lysandrou, V., and Kyriakides, N. (2017): MedSTACH: Eastern Mediterranean Science and Technology Center of Excellence for Archaeology and Cultural Heritage, in Proceedings of: *Monubasin 2017: 10th International Symposium on the Con*servation of Monuments in the Mediterranean Basin, Athens, Greece, September 20-22, 2017.
- Sifaki-Pistolla, D., Koinis, F., Gergoulias, V., Lionis, C., Kyriakidis, P., Aggelaki, S., and Tzanakis, N. (2016): Lung geographical variation in Crete, 1992-2013; Insights from a population-based registry, in: *9th European Public Health Conference*, Vienna, 9-12 November, 2016.
- Lamy T., Miller, R.J., Rassweiler, A., Siegel, D.A., Kyriakidis, P.C., Reed, D.C., and Staines, J. (2016): Uncovering the complex and multiscale drivers of marine community dynamics, in: *Proceedings of the 11th International Temperate Reef Symposium*, Pisa, Italy, June 26-30, 2016.
- Papakonstantinou, A., Soulakellis, N., and Kyriakidis, P. (2015): Finding groups in cartographic design solution spaces: A connected component labeling approach, in: 27th International Cartographic Conference, August 23-28, Rio de Janeiro, Brazil. ISBN 978-85-88783-11-9.
- Zevgolis, Y., Vasios, G.K., Kyriakidis, P.C., Troumbis, A.Y. (2015): Thermal map analysis of tree trunks in urban parks with spatial statistics, in: 18th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, September 26-30, Crete, Greece.
- Vasios, G.K., Kyriakidis, P.C., Dimitrakopoulos, P.G. (2015): Analyzing spatial distribution of plant species in a Mediterranean island: A geostatistical approach, in: 13th European Ecological Federation (EEF): Ecology at the Interface, Science-Based Solutions for Human Well-Being, September 21-25, Rome, Italy.
- Liodakis, S.C., Kyriakidis, P.C., and Gaganis, P.: Geostatistical sampling methods for efficient uncertainty analysis in flow and transport problems, in: European Geosciences Union General Assembly 2015, Session on Nonlinear Processes in Geosciences (General), Vienna, Austria, April 12–17, 2015.
- Vasios, G.K., Kyriakidis, P.C. Dimitrakopoulos, P.G. (2014): Geostatistical analysis of plant species spatial distribution: The case of Crete (in Greek), in: Dimitrakopoulos, P.G., Kokkoris, G.D. (Eds.), Abstracts Book of the 7th Panhellenic Conference of Ecology: Connecting Systems, Scales and Research Fields", October 9-12, Mytilene, Greece.
- **Kyriakids**, P., Liodakis, S., and Gaganis, P. (2014): Likelihood-representative sampling from (log)normal random field models, in: *10th Conference on Geostatistics for Environmental Applications (geoENV2014)*, July 7-11, Paris, France.

- Menzer, O., Meiring, W., **Kyriakidis**, P.C., and McFadden, J.P.: Post processing of CO_2 flux measurements from and urban landscape, *Fall Meeting of the American Geophysical Union*, San Francisco, CA, December 2013.
- Prentice, S.E., Kyriakidis, P., Bookhagen, B., Chadwick, O.A.: Soil-landscape modeling of coastal California hillslopes using terrestrial LIDAR: AGU Chapman Conference on Soil-Mediated Drivers of Coupled Biogeochemical and Hydrological Processes Across Scales, Tucson, AZ, October, 2013.
- Kyriakidis, P.C.: Computationally efficient uncertainty propagation for spatially distributed models, 17th European Colloquium on Theoretical and Quantitative Geography (EC-TQG2011), Harokopeio University, Athens, Greece, September 2011.
- Kyriakidis, P.C.: Latin hypercube sampling of Gaussian random fields on very large regular grids, *Spatial Statistics 2011 – Mapping Global Change*, University of Twente, Enschede, The Netherlands, March 2011.
- Cao, G., **Kyriakidis**, P.C., and Goodchild, M.F.: Prediction and simulation in categorical fields: A transition probability combination approach, *IAMG'09: Annual Meeting of the International Association for Mathematical Geosciences*, Stanford, CA, August 2009.
- Legleiter, C.J., McDonald, R., **Kyriakidis**, P.C., and Nelson, J.M.: Effects of uncertain topographic input data on two-dimensional modeling of flow hydraulics, habitat suitability, and bed mobility, *American Geophysical Union, Fall Meeting 2009*, San Francisco, CA, December 2009.
- **Kyriakidis**, P.C.: Perspectives on geostatistical downscaling, <u>Invited keynote</u> presentation: geoENV 2008: 7th International Conference on Geostatistics for Environmental Applications, Southampton, UK, September 2008.
- **Kyriakidis**, P.C., Nagle, N.N., and Goodchild, M.F.: Geostatistical alternatives for incorporating covariates in areal interpolation, *Geocomputation 2007*, National Center for Geocomputation, Maynooth, Ireland, September 2007.
- Legleiter, C.J., Wydzga, M.A., Faulkenberry, K., Encinas, D., Kyriakidis, P.C., and Thomas, D.: Morphologic response of a restored, gravel-bed reach of the Merced river to sustained high flows, 2006 CALFED Science Conference, Sacramento, CA, October 2006.
- Schneider, P., and **Kyriakidis**, P.C.: Improving spatial support interoperability in GIS using geostatistics: An areal interpolation toolbox, *GIScience 2006*, 4th International Conference on Geographic Information Science, Münster, Germany, September 2006.
- Schneider, P., Roberts, D.A., and Kyriakidis, P.C.: Using MODIS data as the remote sensing input to the Fire Potential Index, *American Geophysical Union, Fall Meeting 2006*, San Francisco, CA, December 2006.
- Holmes, K.W., Kyriakidis, P.C., Chadwick, O.A., Matricardi, E., Soares, J., and Roberts, D.A.: Environmental controls on multi-scale soil nutrient variability in the tropics: The importance of land-cover change, *American Geophysical Union, Fall Meeting 2003*, San Francisco, CA, December 2003.
- Kyriakidis, P.C, and J. Zhang, J.: A geostatistical framework for accuracy assessment of remotely sensed land-cover information, 7th International Conference on Geocomputation, Southampton, UK, September 2003.
- Washburn, L., Kyriakidis, P.C., Yoo, E.-H., and Clark, J.: Spatial scales and distribution of hydrocarbon seeps near Coal Oil Point, California, *Annual meeting of the American Association of Petroleum Geologists*, Salt Lake City, UT, May 2003.

- Holmes, K.W., Kyriakidis, P.C., Chadwick, O.A., Matricardi, E., Soares, J., Roberts, D.A.: Controls on plant-available soil nutrients in the tropics at multiple spatial scales, 5th Conference of the Commission on Pedometrics of the International Union of Soil Sciences, Reading, UK, September 2003.
- Rogan, J., **Kyriakidis**, P.C., and Stow, D.: Evaluation of thematic change map classification using geostatistical methods, *2nd International Conference on Geographic Information Science*, Boudler, CO, September 2002.
- Fabrikant, S.I., and Kyriakidis, P.C.: Geovizualization of large databases and spatial uncertainty, invited presentation in the session on Visualization Technology and Geographical Information Science sponsored by the University Consortium on Geographic Information Science (UCGIS), *Joint Statistical Meetings*, New York, NY, August 2002.
- **Kyriakidis**, P.C., Liu, X., and Goodchild, M.F.: A probabilistic framework for improved accuracy assessment of thematic classification, *Remote Sensing and GIS Accuracy Assessment Symposium*, U.S. Environmental Protection Agency, Las Vegas, NV, December 2001.
- Kyriakidis, P.C.: Graduate deformation of conditional stochastic simulations for dynamic visualization of spatial uncertainty, *GIScience 2000:* 1st International Conference on Geographic Information Science, Savannah, GA, October 2000.
- Kyriakidis, P.C.: Stochastic imaging for assessing the impact of imprecise spatial information on ecological models, invited keynote presentation, International Statistical Institute (ISI) Cutting Edge Conference on Spatial Statistics for Production Ecology: GIS, Remote Sensing, and Modeling, Wageningen, The Netherlands, April 1999.
- Kyriakidis, P.C.: Geostatistical models for integrating indirect (soft) data into spatial uncertainty assessment, American Geophysical Union (AGU) Chapman-Soil Science Society of America (SSSA) Outreach Conference: Applications of GIS, Remote Sensing, Geostatistics, and Solute Transport Modeling to the Assessment of Non-point Source Pollutants in the Vadose Zone, Riverside, CA, October 1997.

Conference Abstracts (not peer-reviewed)

- Zhu, R., **Kyriakidis**, P., and Janowicz, K.: From the geo-dipole to the geo-multipole: A framework of applying multiple-point (geo)statistics for geographic field analysis, 2017 *Association of American Geographers Annual Meeting*, Boston, MA, April 2017.
- Cao, G., Clarke, K., Goodchild, M., Wang, S., and **Kyriakidis**, P.: A spatial multinomial logistic mixed model for mapping thematic classification uncertainty, 108th Annual Meeting of the Association of American Geographers, New York, NY, February 2012.
- Guan, Q., **Kyriakidis**, P.C., and Goodchild, M.F.: Speeding up geostatistical areal interpolation using parallel computing technology, 107th Annual Meeting of the Association of American Geographers, Seattle, Washington, April 2011.
- Cao, G., Kyriakidis, P.C., and Goodchild, M.F.: Transition probability-based geostatistical methods for modeling categorical spatial data, 106th Annual Meeting of the Association of American Geographers, Washington, DC, April 2010.
- Cao, G., and Kyriakidis, P.C.: An approach for combining spatial transition probabilities in the prediction and simulation of categorical fields, 105th Annual Meeting of the Association of American Geographers, Las Vegas, NV, March 2009.

- Schneider, P., Roberts, D.A., and Kyriakidis, P.C.: Evaluation of MODIS time-series for wildfire susceptibility assessment in southern California, 103rd Annual Meeting of the Association of American Geographers, San Francisco, CA, April 2007.
- Yoo, E.-H., and Kyriakidis, P.C.: Area-to-point coKriging in spatial hedonic pricing models, 103rd Annual Meeting of the Association of American Geographers, San Francisco, CA, April 2007.
- Nagle, N., Sweeney, S., and Kyriakidis, P.C.: Change of support and the regression analysis of areally aggregated data, 102nd Annual Meeting of the Association of American Geographers, Chicago, IL, March 2006.
- Quan, Q., Kyriakidis, P.C., and Goodchild, M.F.: Parallel computing for geostatistical areal interpolation, 102nd Annual Meeting of the Association of American Geographers, Chicago, IL, March 2006.
- Yoo, E.-H., and **Kyriakidis**, P.C.: Extension of a geostatistical framework for reconstructing population density surfaces, 102nd Annual Meeting of the Association of American Geographers, Chicago, IL, March 2006.
- **Kyriakidis**, P.C. (2005): A Geostatistical Framework for area-to-point spatial interpolation, 101^{st} Annual Meeting of the Association of American Geographers, Denver, CO, April 2005.
- Schneider, P., Goodchild, M.F., Kyriakidis, P.C., Guan, Q., Hastings, J., and Rice, M.: A framework for areal interpolation and its applications for geospatial data interoperability in a distributed GIS environment, 101st Annual Meeting of the Association of American Geographers, Denver, CO, April 2005.
- **Kyriakidis**, P.C.: A systems approach to the visualization of spatial uncertainty, *Centennial Annual Meeting of the Association of American Geographers*, Philadelphia, PA, March 2004.
- **Kyriakidis**, P.C.: On the use of interpolation in spatial analysis, 98th Annual Meeting of the Association of American Geographers, Los Angeles, CA, March 2002.

Proceedings of Research Unit Meetings

- Boucher, A., and Kyriakidis, P.C. (2006): Super-resolution land cover mapping with indicator geostatistics, in: *Proceedings of the* 19th Annual Meeting of the Stanford Center for *Reservoir Forecasting*, Stanford University, CA, May 2006.
- Liu, Y., Jiang, Y., and Kyriakidis, P.C. (2006): Calculation of average covariance using Fast Fourier Transform (FFT), in: *Proceedings of the* 19th Annual Meeting of the Stanford Center for Reservoir Forecasting, Stanford University, CA, May 2006.
- Kyriakidis, P.C., Journel, A.G., and Mao, S. (1999): Correcting the smoothing effect of estimators: A spectral post-processor, in: *Proceedings of the* 12th Annual Meeting of the Stanford Center for Reservoir Forecasting, Stanford University, CA, May 1999.
- **Kyriakidis**, P.C. (1998): Stochastic modeling of spatiotemporal distributions: Application to monitoring sulphate deposition over Europe, in: *Proceedings of the* 11th Annual Meeting of the Stanford Center for Reservoir Forecasting, Stanford University, CA, May 1998.
- Kyriakidis, P.C. (1997): Stochastic models for spatiotemporal phenomena: A review and a proposal, in: *Proceedings of the* 10th Annual Meeting of the Stanford Center for Reservoir Forecasting, Stanford University, CA, May 1997.

Dissertations

• Kyriakidis, P.C. (1999): *Stochastic Simulation of Spatiotemporal Phenomena*, Ph.D. Dissertation, Branner Earth Sciences Library, Stanford University, 220p.

Presentations

In Meetings & Workshops

- Offshore Wind Power Assessment around Cyprus using Sentinel-1 Data, *Space Operations and Environmental Monitoring in Cyprus*, First Virtual EXCELSIOR International Technical Workshop, July 15, 2020; online event organized by the EXCELSIOR H2020 Teaming Project Consortium and the ERATOSTHENES Centre of Excellence
- Geomatics at the Cyprus University of Technology: An Overview of Degree Programmes and Related Activities, *135th EuroSDR Board of Delegates Meeting*, Nicosia, Cyprus, November 13, 2019

MedSTACH Dissemination/Promotion/Networking

- Walk of Truth, Limassol, Cyprus 30/05/2018
- Limassol Municipality, Limassol, Cyprus 26/04/2018
- \bullet Greek Ministry of Culture and Sports, Athens, Greece 03/03/2018
- \bullet Greek National Tourism Organization, Athens, Greece 23/02/2018
- \bullet Department of Lands and Surveys, Nicosia, Cyprus 22/02/2018
- Geological Survey Department, Nicosia, Cyprus 16/02/2018
- Microsoft Cyprus / Reyelise, Nicosia, Cyprus 29/01/2018
- Cyprus Cultural Centre: House of Cyprus, Athens, Greece 25/01/2018
- Department of Antiquities of Cyprus, Cyprus Museum, Nicosia, Cyprus 08/01/2018
- Technical Chamber of Cyprus, Nicosia, Cyprus 20/12/2017
- Archaeological Research Unit, University of Cyprus, Nicosia, Cyprus 05/12/2017
- British High Commission, Nicosia, Cyprus 03/10/2017

In Meetings & Workshops

- Sifaki-Pistolla, D., Chatzea, V.-E., Frouzi, E., Georgoulias, V., Aggelaki, S., **Kyriakidis**, P., Lionis, C., and Tzanakis, N. (2016): Evidence-based toolkit of spatial epidemiology and analysis to enhance cancer surveillance, *European Network of Cancer Registries Scientific Meeting and General Assembly*, Baveno, Italy, October 5-7, 2016.
- Kyriakidis, P: A geostatistical framework for studying the modifiable area unit and ecological inference problems, 8th Conference of the Hellenic Society for Geographical Information Systems, Athens, Greece, December 2014.
- López-Carr D., Bookhagen, B., and **Kyriakidis**, P.: A Vision for Geography: Dynamic Integration of Human and Physical Sciences in Space and Place, *76th Annual Meeting of the Association of Pacific Coast Geographers*, Lake Tahoe, CA, September 2013.
- Kyriakidis, P.C.: Spatial uncertainty and decision making. *Vespucci Institute: Synthesizing Population, Health, and Place,* Wrigley Marine Science Center, University of Southern California, Catalina Island, CA, April 2013.

Presentations

- Kyriakidis, P.C.: Applications of geostatistics in hydrocarbon research: Data integration, geomodel development and uncertainty. *Hydrocarbon Prospecting, Research and Exploitation,* Aristotle University of Thessaloniki, Greece, March 2012.
- Sales, M.H., Souza, C., Kyriakidis, P.C., Roberts, D.A., and Vidal, E.J.: Estimating aboveground forest biomass using geostatistics: A case study of Rondonia, southern Brazilian Amazon. LBA-ECO 9th Science Team Meeting, Sao Paulo, Brazil, November 2005.
- Goodchild, M.F., Kyriakidis, P.C., Schneider, P., Guan, Q., and Rice, M.: Improving spatial support interoperability: A computationally fast, geostatistical approach and its GIS implementation, Army Research Office Principal Investigator Research Review Meeting, US Army Corps of Engineers Topographical Engineering Center, Ft. Belvoir, VA, September 2005.
- Goodchild, M.F., Kyriakidis, P.C., Schneider, P., Guan, Q., and Rice, M.: Improving spatial support interoperability: A computationally fast, geostatistical approach and its GIS implementation, National Geospatial-Intelligence Agency Academic Research Program Symposium (NARP), National Academy of Sciences, Washington, D.C., September 2005.
- Goodchild, M.F., Kyriakidis, P.C., Schneider, P., Rice, M., Guan, Q., and Hastings, J.: Improving spatial data interoperability: A framework for geostatistical support-to-support interpolation, U.S. Army Research Office Principal Investigator Research Review Meeting, US Army Corps of Engineers Topographical Engineering Center, Ft Belvoir, VA, February 2005.
- Kyriakidis, P.C.: Some geostatistical concepts for interoperability, *NCGIA Specialist Meeting* on Spatial Webs, Santa Barbara, CA, December 2004.
- Goldsberry, K., Fabrikant, S.I., and **Kyriakidis**, P.C.: The influence of classification choice on animated choropleth maps, *Annual Meeting of the North American Cartographic Society*, Portland, Maine, October 2004.
- Holmes, K.W., **Kyriakidis**, P.C., Chadwick, O.A., Matricardi, E., Soares, J., and Roberts, D.A.: Impact of land-cover change on soil nutrient levels at multiple spatial scales, *7th LBA-ECO Science Team Business Meeting*, Fortaleza, Ceara, Brazil, November 2003.
- Holmes, K.W., **Kyriakidis**, P.C., Matricardi, E., Batista, G.T., Chadwick, O.A.: Modeling regional soil patterns based on lithology and topographic attributes, *LBA-Ecology International Science Meeting*, Manaus, Brazil, July 2002.
- Loague, K., and **Kyriakidis**, P.C.: R-5 revisited, again: A closer look at the spatial and temporal variability in an infiltration data set for a small rangeland catchment, invited presentation, *Workshop on Scale Problems in Hydrology*, Schlob Krumbach, Austria, June 1996.

Invited Seminars & Colloquia

All presentations are given by Kyriakidis, unless otherwise noted

- Promoting uncertainty analysis in hydrogeology via efficient geostatistical simulation, Institute of Earth Surface Dynamics Seminar Series, University of Lausanne, Switzerland, May, 2018.
- Efficient uncertainty assessment methods in spatially distributed hydrogeological models of flow and transport, (presented by Liodakis, S.), in: *Space-Time Stochastic Models and their Applications*, Scientific Workshop, Geostatistics Laboratory, School of Mineral Resources Engineering, Technical University of Crete, September, 2015.
- Efficient simulation of (log)normal random fields for hydrogeological applications, *Department* of *Mathematics and Statistics Seminar Series*, University of Cyprus, Nicosia, Cyprus, November 2013.

Presentations

- Dynamic visualization of spatial uncertainty with geostatistics, *Geomatics Seminar Series*, Department of Civil, Environmental and Geomatic Engineering, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland, September 2011.
- Recent developments in reconstructing attribute surfaces from areal data, *Postgraduate Colloquium Series*, Department of Geography, Harokopion University, Athens, Greece, May 2011.
- An overview of geostatistical modeling concepts, *Colloquium Series*, Department of Geomatics Engineering, Inha University, Incheon, South Korea, September 2010.
- Super-resolution simulation of land cover patterns, *GISLERS Summer School: Bridging GIS, Landscape Ecology and Remote Sensing for Landscape Planning*, Centre for Geoinformatics, University of Salzburg, Salzburg, Austria, July 2009.
- Some geostatistical approaches for downscaling spatial data, *Colloquium Series*, Department of Geography, San Diego State University, San Diego, December 2008.
- Geostatistical super-resolution land cover mapping from coarse class fractions, *Colloquium Series*, Department of Geography, University of Colorado, Boulder, March 2008.
- Geostatistical approaches for super-resolution land cover mapping, *National Center for Geocomputation Seminar Series*, National Center for Geocomputation, Maynooth, Ireland, February 2008.
- Evaluation of recoverable mineral reserves: A geostatistical simulation approach, *Director's Seminar Series*, Greek Geological Institute, Athens, Greece, May 2006.
- Geostatistical super-resolution land cover mapping, *Post-Graduate Seminar Series on Geography and Applied Geographic Information Science*, Department of Geography, University of the Aegean, Greece, May 2006.
- Areal interpolation from an inverse problem perspective: Geostatistical solutions and some well-known particular cases, *Colloquium on Geographic Information Science*, Department of Geography, University of Zurich, Switzerland, May 2006.
- Super-resolution land cover mapping with indicator geostatistics, *Brown-Bag Seminar*, Department of Geography, University of Zurich, Switzerland, May 2006.
- Schneider, P., **Kyriakidis**, P.C., Goodchild, M.F., Guan, Q., and Rice, M.: Applications of geostatistics for improving spatial support Inter-operability of GIS, *Joint Colloquium of the University of Redlands Master's of GIS Program and the Environmental Systems Research Institute (ESRI)*, Environmental Systems Research Institute, Redlands, CA, October 2005.
- On the role of geostatistics in spatial analysis, *Geographic Science Seminar "Why Space Matters"*, Department of Geological and Environmental Sciences, Stanford University, CA, May 2005.
- Spatial analysis of areal data: The geostatistical alternative, *NCGIA Brown-Bag Seminar*, Department of Geography, UCSB, October 2003.
- Area-to-point spatial interpolation using geostatistics, *Quantitative Methods in Social Sciences Colloquium*, UCSB, April 2003.
- Changing spatial resolution using geostatistics, *NCGIA Brown-Bag Seminar*, Department of Geography, UCSB, November 2002.
- Dynamic visualization of spatial uncertainty via gradual deformation of conditional stochastic simulations, *Department of Geography Colloquium Series*, UCSB, February 2001.
- On the role of geostatistics in geographical information science, *Department of Geography Colloquium Series*, UCSB, January 2000.

Presentations

- Geostatistics for environmental applications, *Earth Sciences Division Colloquium Series*, Berkeley National Laboratory, May 1999.
- Modern geostatistics: A comprehensive framework for environmental risk assessment, *Donald Bren School of Environmental Science and Management Colloquium Series*, UCSB, February 1999.
- Geostatistical space-time models and their application to monitoring sulphate deposition, *Hy-drogeology Seminar Series*, Department of Geological and Environmental Sciences, Stanford University, January 1999.
- Stochastic space-time models for sulphate deposition, *Earth Sciences Division Colloquium*, NASA-Ames Research Center, January 1999.
- Beyond summary statistics for assessing accuracy in digital elevation models, *NCGIA Brown Bag Seminar*, Department of Geography, UCSB, August 1997.
- Geostatistical space-time models, *NCGIA Brown-Bag Seminar*, Department of Geography, UCSB, July 1997.
- Stochastic imaging for spatial uncertainty assessment and integration of secondary (soft) information, *NCGIA Brown-Bag Seminar*, Department of Geography, UCSB, May 1997.
- Selecting panels for remediation in contaminated soils via stochastic imaging, *Environmental* and *Earth Sciences Division Colloquia*, Sandia National Laboratory, July 1996.
- Selecting panels for remediation in contaminated soils via stochastic imaging, *Environmental* and Earth Sciences Division Colloquia, Los Alamos National Laboratory, July 1996.

Scientific Networking

Invited Visits

- Networking visit (December 8-10) to the School of Geography and Planning of Sun Yatsen University, Guangzhou, China, to attend the "Global Network of Geography Education and Research Workshop", hosted by the School's Dean, Prof. Desheng Xue
- Visiting Scholar (June 09-16) to the Department of Geography of the University of Southampton, UK, under the auspices of the Erasmus Mundus MSc Program "Geo-Information Science for Environmental Modelling and Management", hosted by Prof. Peter Atkinson

Post-Doctoral Researchers

- 2013 Dr. Dimitris Kavroudakis Geographer, PhD University of Sheffield, UK. Funding source: Greek General Secretariat of Research and Technology.
- Dr. No-Wook Park: Senior researcher from the (South) Korea Institute of Geoscience and Mineral Resources (KIGAM). Funding source: Fellow of the (South) Korea Research Foundation from January 2008 through August 2008. <u>Current affiliation</u>: Assistant Professor, Department of Geomatics Engineering, Inha University, South Korea.

Teaching

CUT Catalog Courses

- GEO 563
 - Advanced GIS Applications, course coordinator, MSc-level, 6 units. Components of Geographic Information Systems (GIS) user needs, provision of information, decision support systems, infrastructure, legal framework. Applications in GIS. Database organization and selection of a GIS depending upon a specific application. GIS applications in Cyprus. GIS applications in various fields : Environment, water quality, air pollution, agriculture, geology, blue growth, social policy, urban planning, land register, coastal, project management, road management and road works, telecommunications, archeology, cultural heritage, etc... Modern methods of acquiring and analyzing geospatial data.
- GEO 554 Spatial Analysis and Geostatistics, MSc-level, 6 units. Geospatial data types and spatial analysis objectives for each type. Elements of descriptive statistics and their application in spatial analysis. Methods for the analysis of spatial distribution of point data. Analysis of spatial distribution of linear features, graphs and networks, topology and accessibility, network analysis. Problems and models for spatial allocation/siting. Analysis of areal data, spatial differentiation indices, spatial auto-correlation. Geostatistics, spatial association, spatial regression, spatial interpolation. Categorical data and methods for analyzing their spatial distribution.
- GEO 551
 Geoinformatics and Geographical Information Systems, course coordinator, MSclevel, 6 units. Theoretical framework of Geoinformatics. Application areas, computer/information systems, and their architecture. Spatial and temporal notions in spatial information. Sources of spatial and descriptive data. Data acquisition from maps. Geospatial data acquisition from geodetic, photogrammetric and remotelysensed sources. Object and field data models in spatial information. Data bases and their structure. Spatial decision support systems. Commercial and open-source geographic information systems.
- GEO 333
 Geography and Spatial Analysis, BSc-level, 4 units. Analysis of natural and anthropogenic phenomena in space using geographical methods and techniques. Lectures and computer labs on diverse topics in spatial analysis, including: Population distribution, questionnaire development, analysis of spatial dispersion, analysis of spatial point patterns, continuous fields, areal data, network analysis, statistical regression analysis, location-allocation models.
- GEO 214
 Principles of Geoinformatics and Geographical Information Systems, BSc-level, 4 units. Introduction to the theory of geoinformatics. Basic principles of geoinformatics: Theoretical basis, historical evolution, concepts of space and time, representation of geographical knowledge, representation models of space, implementation of geographical concepts and models in Geographical Information Systems (GIS), geospatial data sources and acquisition technologies. Object-based data models and models of continuous fields. Elements of spatial data bases. Methods of data linking/integration. Elements of spatial analysis and of geo-visualization.

Teaching

University of the Aegean Catalog Courses

- Geo-A-101
 Spatial Analysis, MSc-level, compulsory, 5 units. Spatial statistics for the analysis of geospatial data. Advanced methods and techniques for the analysis of spatial point patterns, the analysis of measurements from geographical variables with a continuous spatial distribution (fields), and analysis of lattice (areal) geographical data, and spatial networks. Use of specialized software for employing advanced methods of spatial statistics, and their practical application for the analysis of spatial data from physical and human geography
- Geo-A-255
 Health-related Applications of Spatial Analysis, MSc-level, elective, 3 units. Methods and techniques of spatial statistics for the analysis of public health data, including but not limited to disease mapping, cluster detection, spatial variation in disease risk, geostatistical mapping of environmental variables, ecological correlation, and exposure assessment.
- Geo-301
 Spatial Statistics, BSc-level, compulsory, 5 units. Introduction to the basic principles of spatial statistics pertaining to the analysis of geospatial data. Emphasis is given to the analysis of spatial point patterns, the analysis of measurements from geographical variables with a continuous spatial distribution, and the analysis of lattice (areal) geographical data. Use of specialized software for understanding basic methods of spatial statistics, and their practical application for the analysis of spatial data from physical and human geography
- Geo-240
 Multivariate Analysis, BSc-level, elective, 3 units. Introduction to the basic principles of multivariate statistics for the analysis of geographical data. Emphasis is given to statistical sampling, correlation analysis, regression analysis, principal component analysis, clustering and classification. Use of statistical software for understanding basic methods of multivariate statistics, and its application to data analysis from physical and human geography.

UCSB Catalog Courses

- Geog 279
 Seminar in Geostatistics: Advanced Topics in Spatial Statistics, Graduate-level, elective, 3 units. Research frontiers/application areas of geostatistics. Advanced modeling of spatial patterns. Stochastic simulation algorithms, Markov chain Monte Carlo methods, and Latin Hypercube sampling of spatial distributions. Extension to spatiotemporal problems and Bayesian data integration.
- Geog 278
 Practice of Geostatistical Modeling of Spatial Data, Graduate-level, elective, 5 units. Practice of geostatistics on large environmental data sets using MATLAB. Methods for modeling spatial patterns, integrating spatial data across multiple spatial scales, and simulating complex spatial distributions.
- Geog 210C
 Analytical Methods in Geography III, Graduate-level, compulsory, 4 units. Overview of key concepts in spatial statistics, including measures of spatial association and models for spatial regression, point processes and random fields. Geostatistical methods for analysis and interpolating continuous and area (lattice) data.

| Geog 210B | • Analytical Methods in Geography II, Graduate-level, compulsory, 4 units. Statisti- cal principles and practice of analyzing geographical data. Topics include bivariate and multiple regression and other multivariate techniques. Emphasis on exploratory data analysis and graphical techniques. |
|-----------|---|
| Geog 172 | Intermediate Geographical Data Analysis, Undergraduate-level, compulsory, 5 units. Statistical analysis of geographical data. Topics include spatial auto- correlation, multiple regression in spatial context, and introductory methods for analyzing point, area (lattice), and continuous spatial data. Lab includes the use of statistical software for analyzing various spatial data types. |
| | Invited Presentations at Short Courses |
| Aug 2021 | Spatial Analysis: Principles and Selected Examples, Organization for Security and Co-operation in Europe (OSCE) Training School on "Cultural Property Protection", Multinational Peace Support Operations Training Center, Kilkis, Greece, August 30 September 03, 2021. link |
| Dec 2018 | • Spatial Statistics, 5-day course given as part of the MSc Program: Geoinformation in Environmental Management, Mediterranean Institute of Chania, Greece. |
| May 2017 | • Geostatistics: Oil and gas reserves estimation methods, 3-day lectures given as part of a class in the MSc Program: Hydrocarbons Prospection and Exploitation, Aristotle University of Thessaloniki, Greece. |
| Oct 2017 | • Spatial Statistics, 5-day course given as part of the MSc Program: Geoinformation in Environmental Management, Mediterranean Institute of Chania, Greece. |
| May 2016 | • Geostatistics: Oil and gas reserves estimation methods, 3-day lectures given as part of a class in the MSc Program: Hydrocarbons Prospection and Exploitation, Aristotle University of Thessaloniki, Greece. |
| Oct 2016 | • Spatial Statistics, 5-day course given as part of the MSc Program: Geoinformation in Environmental Management, Mediterranean Institute of Chania, Greece. |
| Aug 2015 | • Spatial Analysis Applications in Health, in: Nutrition and Biodiversity as Tools of Well-Being, Summer School organized by the University of the Aegean, and held at Molyvos, Lesvos, Greece. |
| Jun 2012 | (1) Geostatistical Downscaling Concepts, (2) Geostatistical Simulation and Spatial Uncertainty, (3) Space-Time Geostatistics, in: Statistical Analysis of Geospatial Data for Environmental Studies, Summer School organized by the Mediterranean Agronomic Institute of Zaragoza and the International Center for Advanced Mediter- ranean Agronomic Studies (IAMZ-CIHEAM), and held at Zaragoza, Spain (three lectures during one of the fifteen days of the summer school) |
| Jul 2003 | (1) Principles of Spatial Stochastic Simulation, (2) Geostatistical Space-Time Models, (3) Geostatistical Integration of Spatial Data, in: Spatio-Temporal Statistical Analysis of Multi-Platform Optical Ocean Color Observations, Summer School organized by the School of Marine Sciences of the University of Maine (sponsored by the National Science Foundation initiative "Collaborations in Mathematical Geosciences"), and held at the Darling Marine Center, Walpole, Maine (three, 1-day, short courses) |
| Feb 2003 | • Geostatistics for Environmental Applications, National Center for Ecological Analysis and Synthesis, Santa Barbara, California (1-day short course) |

Teaching

| May 1998 | • Geostatistics Software Library, Stanford Center for Reservoir Forecasting, Stanford, |
|----------|--|
| - | California (5-day short course with Prof. Journel) |
| May 1999 | • Geostatistics Software Library, Stanford Center for Reservoir Forecasting, Stanford, |
| | California (5-day short course with Prof. Journel) |
| Aug 1997 | • Introduction to Geostatistics, National Center for Geographic Information and Anal- |
| | ysis, Santa Barbara, California (3-day short course) |

Graduate Student Committees

Ph.D. Committees

Chair of Committee (**), Co-Chair of Committee (*)

| Ch. Mettas | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Asphalt Pavement Condition Assessment Using Remote Sensing Techniques |
|------------------|---|
| R. Zhu* | UCSB Department of Geography (2020): Rethinking Fundamentals of GIScience from a Higher-Order Perspective |
| K. Kouros | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Public Service Management Leading to Quality: Strategic Analysis, Risk Assessment and Performance Measurement for Market Surveillance Authority for Construction Products in the EU |
| J. Dai | • UCSB Department of Geography (2020): The Tale of Western Chitwan Community Forests: Historical Vegetation Dynamics and the Challenges with the Invasion of Mikania micrantha |
| M. Alverti | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): A Human-Centric Approach to Achieving Local-Scale Political Interventions for Euro-Mediterranean Smart Cities (in Greek) |
| P. Christodoulou | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): <i>Reducing Statistical Uncertainty in Geotechnical En-</i> <i>gineering Design Relying on Targeted Field Investigation: A Random Field</i> <i>Approach</i> |
| M. Tzouvaras | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): <i>Monitoring and Assessment of the Impact of Natural</i> <i>Hazards on Infrastructure Resilience using Earth Observation Techniques</i> |
| Th. Dimopoulos | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Critical Investigation of Novel Computational Techniques for Automated Valuations of Real Estate Properties in Cyprus |
| A. Chliaoutakis | • School of Electrical and Computer Engineering, Technical University of Crete, Greece (2020): Agent-Based Modeling of Past Societies and their Social Organization |
| A. Nikolaidis | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Numerical Marine Dynamics Modeling of the Lev- antine and Cyprus Sea |

| X. Andrianou | • Cyprus International Institute for Environmental and Public Health, Fac- ulty of Health Sciences, Cyprus University of Technology (2019): Defi- nition and Application of the Urban Exposome Study Framework: From Stakeholders' Perspectives to Non-Communicable and Communicable Dis- eases Epidemiology |
|--------------------|--|
| B. Romero | • UCSB Department of Geography (2019): Identifying Geographical Fea- tures with Spatial Data: Multi-scale Approaches for Representing Local Extrema |
| I. Maina | • University of the Aegean, Department of Oceanography and Marine Bio- sciences (2019): Exploiting Vessel Monitoring System (VMS) data for Fisheries Management |
| I. Tsiplakidis | • National Technical University of Athens, School of Rural and Survey Engi- neering (2019): Prototype Methodological Framework for Analyzing Cor- relations and Modeling Spatiotemporal Interactions between Natural Haz- ards Using Bayesian Logic (in Greek) |
| K. Mwenda* | • UCSB Geography (2018): Assessment of Spatial Relationships between Stunting and Malaria Incidence in Kenya. Current employment: Assistant Professor of Population Studies (Research), Associate Director of Spatial Structures in the Social Sciences (S4), Brown University, U.S.A. |
| S. Salap-Ayca | • SDSU-UCSB Joint Doctoral Program (2018): Spatially Explicit Uncer- tainty and Sensitivity Analysis Methods for Land-Use Models |
| E. Savvidou | • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2018): A Study of Alternative Hydrological Response Unit Configurations in the Context of GIS-based Distributed Hydrological Mod- eling |
| S. Liodakis** | • Department of Geography, University of the Aegean (2017): Computa- tionally Efficient Geostatistical Simulation for Uncertainty Propagation in Models with Spatially Distributed Parameters. <u>Note:</u> Kyriakidis was the Chair of this Ph.D. Committee until his resignation from the University of the Aegean |
| D. Sifaki-Pistolla | • Faculty of Medicine, University of Crete (2017): Spatio-temporal Epidemi- ological Study of Lung Cancer in Crete from 2000 to 2013. Association with Demographic and Environmental Risk Factors (in Greek) |
| JH. Lee | • UCSB Department of Geography (2015): Travel Behavior Dynamics in Space and Time |
| A. Nisantzi | • Cyprus University of Technology, Department of Civil Engineering and Geomatics (2015): Study of the Atmosphere and Optical Properties of Aerosols with the Combined use of Remote Sensing and Lidar Techniques in the Easter Mediterranean Region |
| Ch. Papoutsa | • Cyprus University of Technology, Department of Civil Engineering and Geomatics (2015): Integrated use of Field Spectroscopy and Satellite Re- mote Sensing for Monitoring Water Quality in Case-2 (Inland and Coastal) Water Bodies (in Greek) |

| P. Palaiologou | • University of the Aegean, Geography Department (2015): <i>Behavior Fore-</i> <i>casting Design and Impact Assessment of Forest Fires Using Geoinformat-</i> <i>ics</i> (in Greek) |
|------------------|--|
| Laura Harrison | • UCSB Department of Geography (2014): Impacts of Climate Variability on Surface Energy and Water Budget in Sub-Saharan Africa |
| S. Ravulaparthy | • UCSB Department of Geography (2013): Spatial Perspectives in Busi- ness Establishment Behavioral Modeling: A Case-Study Analysis in Santa Barbara County |
| Y. Yuan | • UCSB Department of Geography (2013): Characterizing Human Mobility from Mobile Phone Usage |
| O. Roussou | • University of the Aegean, Geography Department (2013): <i>Spatial Analysis</i> of Fuel Distribution for Fire Management (in Greek) |
| Papakonstantinou | • University of the Aegean, Geography Department (2011): Geo- Visualization and Scale Issues: Scale Selection and Integration via the Development of Computational Methods and Geoinformatics (in Greek) |
| Yupeng Li | • Department of Civil and Environmental Engineering, University of Alberta (2011): <i>Improved Facies Modeling with Multivariate Spatial Statistics</i> |
| Guofeng Cao* | • UCSB Geography (2011): A Geostatistical Framework for Categorical Spatial Data Modeling. Current employment: Assistant Professor, Department of Geosciences, Texas Tech University, U.S.A. |
| Kyle Cavanaugh | • UCSB Geography (2011): Variability of Giant Kelp Forests in Southern California: A Remote Assessment of Kelp Biomass and the Drivers of Kelp Dynamics |
| Seth Peterson | • UCSB Geography (2011): Fire Risk in California |
| Kris Kuzera | • Joint SDSU/UCSB Ph.D. Program (2011): Climate and Climate Change and Infectious Disease Risk in Thailand: A Spatial Study of Dengue Hem- orrhagic Fever Using GIS and Remotely-Sensed Imagery |
| Yuki Hamada | • Joint SDSU/UCSB Ph.D. Program (2010): Characterizing Conditions of California Sage Scrub Communities in Mediterranean Type Ecosystems Using Remote Sensing |
| Linna Li | • UCSB Geography (2010): Design of a Conceptual Framework and Approaches for Geo-Object Data Conflation |
| Carl Legleiter | • UCSB Geography (2008): Characterizing the Spatial Structure of River Morphology and Hydraulics: Remote Mapping and Geostatistical Model- ing of Dynamic Fluvial Systems |
| Ph. Schneider | • UCSB Geography (2008): Modeling Spatial Patterns of Wildfire Suscep- tibility in Southern California: Applications of MODIS Remote Sensing Data and Mesoscale Numerical Weather Models |
| Kerry Halligan | • UCSB Geography (2007): Mapping Forest Canopy Fuels in Yellowstone National Park Using Lidar and Hyperspectral Data |
| Jared Aldstadt | • Joint SDSU/UCSB Ph.D. Program (2007): Spatial/Spatiotemporal Analysis of Dengue Virus Transmission and Aedes aegypti Abundance |
| Mark Janikas | • Joint SDSU/UCSB Ph.D. Program (2006): Comparative Regional Income Dynamics: Clustering, Scale, and Geocomputation |

| Eun-Hye Yoo** | • UCSB Geography (2006): A Geostatistical Framework for Downscaling Spatial Data. Current Employment: Assistant Professor, Department of Geography, State University of New York (SUNY) at Buffalo |
|------------------------------------|---|
| Matthew Clark | • UCSB Geography (2005): An Assessment of Hyperspectral and Lidar Re- mote Sensing for the Monitoring of Tropical Rain Forest Trees |
| Carlos Sousa Jr. | • UCSB Geography (2005): Mapping and Spatiotemporal Characterization of Degraded Forests in the Brazilian Amazon Through Remote Sensing |
| Rich. Middleton | • UCSB Geography (2005): Geographical Distillation: Application of the p-Median, Traveling Salesman, and Regionalization Problems |
| Gregory Husak | • UCSB Geography (2005): Methods for the Statistical Evaluation of African Precipitation |
| Nicholas Nagle* | • UCSB Geography (2005): Continuous Field Statistical Methods for Spa- tial Analysis in the Social Sciences. Current Employment: Assistant Pro- fessor, Department of Geography, University of Tennessee at Knoxville, USA |
| Mingjie Chen | • UCSB Bren School of Environmental Science and Management (2005): Stochastic Multiphase Flow in Heterogeneous Porous Media |
| Xiaohang Liu | • UCSB Geography (2003): Estimation of the Spatial Distribution of Urban Population Using High Spatial Resolution Satellite Imagery |
| Karen Holmes | • UCSB, Geography (2003): Regional Effects of Deforestation on Soil Bio- geochemistry in the Southwestern Amazon |
| | |
| | M.Sc./M.A. Committees Chair of Committee (**) |
| I. Florides** | Chair of Committee (**) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Solar Energy Estimation from Rooftop Photovoltaic |
| I. Florides** M. Demosthenous** | Chair of Committee (**) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Solar Energy Estimation from Rooftop Photovoltaic Systems using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Confronting Urban Heat Island: Green Roof Assess- |
| | Chair of Committee (**) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Solar Energy Estimation from Rooftop Photovoltaic Systems using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Confronting Urban Heat Island: Green Roof Assess- ment using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Spatial Downscaling of Wind Prediction Derived from Numerical Weather Prediction Models using Geostatsitical Methods and |
| M. Demosthenous** | Chair of Committee (**) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Solar Energy Estimation from Rooftop Photovoltaic Systems using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Confronting Urban Heat Island: Green Roof Assessment using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Spatial Downscaling of Wind Prediction Derived from Numerical Weather Prediction Models using Geostatsitical Methods and Satellite (Sentinel-1) Data: Application to the Offshore Region of Cyprus Department of Civil Engineering and Geomatics, Cyprus University of Technology (2019): Application Development for Smart Devices for Rapid |
| M. Demosthenous** F. Fayad** | Chair of Committee (**) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Solar Energy Estimation from Rooftop Photovoltaic Systems using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Confronting Urban Heat Island: Green Roof Assessment using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Confronting Urban Heat Island: Green Roof Assessment using Geographic Information Systems (in Greek) Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Spatial Downscaling of Wind Prediction Derived from Numerical Weather Prediction Models using Geostatsitical Methods and Satellite (Sentinel-1) Data: Application to the Offshore Region of Cyprus Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Spatial Downscaling of Wind Prediction Derived from Numerical Weather Prediction Models using Geostatsitical Methods and Satellite (Sentinel-1) Data: Application to the Offshore Region of Cyprus |

| JH. Kim | • UCSB Department of Geography (2015): Harvesting Geospatial Intelli- gence from Geotagged Social Media Data: A New Type of Early Warning System Against North Korea |
|---------------------|---|
| P. Karabasis** | University of the Aegean, Department of Geography (2015): Spatiotem- poral Analysis of Vineyard Extent (and Corresponding Agricultural Pro- duction) as a Function of Biophysical and Climatic Factors in Greece (in Greek) |
| K. Lagkou | • University of the Aegean, Department of Geography (2015): <i>Methods for</i> <i>Forest Ecosystems Management and Fire Danger using Geoinformatics</i> (in Greek) |
| S. Meerdink | • UCSB Department of Geography (2014): Linking Seasonal Foliar Chem- istry to VSWIR-TIR Spectroscopy Across California Ecosystems |
| K. Mwenda** | • UCSB Department of Geography (2014): Decision-Making Under Spatial Uncertainty in Downscaled Population Estimates: An Assessment of HIV Prevalence in Tanzania (Co-chaired with David Lopez-Carr) |
| L. Katikas** | • University of the Aegean, Department of Geography (2014): Simula- tion of Hydraulic Conductivity Random Fields with the Latin Hypercube Method, and its Evaluation Using Simulation of Flow and Mass Transport (in Greek) |
| I. Polydoropoulos** | • University of the Aegean, Department of Geography (2014): <i>Spatial Analysis of Accessibility to Islands of the North and South Aegean</i> (in Greek) |
| B. Rastogi | • UCSB Department of Geogaphy (2013): Characterizing Spatial and Tem- poral Patterns of Cloud Cover and Fog Inundation for the Northern Chan- nel Islands of California |
| S. Prentice | • UCSB Department of Geography (2013): Soil-Landscape Modeling of Coastal California Hillslopes Using Terrestrial LIDAR |
| Stergiopoulos** | • University of the Aegean, Department of Geography (2013): Geostatistical Analysis of the Impact of Errors in Digital Terrain Models of Scale 1:5000 (HAGS) and ASTER on the Hydrologic Basin Response (in Greek) |
| G. Limitsios** | • University of the Aegean, Department of Geography (2013): Spatial Point Pattern Analysis in Archaeology: The Case of Archaeological Sites of Pediada Heraklion (in Greek) |
| G. Daras | • University of the Aegean, Department of Geography (2012): Analysis and Modeling of Terrace Distribution and Abandonment in Lesvos Island (in Greek) |
| Giannakopoulos | • University of the Aegean, Department of Geography (2012): Evaluation of the Primary Health Care System in Lesvos (in Greek) |
| I. Maina** | • University of the Aegean, Department of Geography (2011): The Use of Geographical Information Systems and Generalized Additive Models for the Prediction of Potential Spawning Fields of Anchovy and Sardinella (in Greek) |
| E. Hatzi | • Aegean Geography (2011): Landslide Phenomena in Lesvos Island (Greece): Manifestation, Human Interventions, Impacts Confrontation (in Greek) |

| C. Ntegianni** | • Aegean Geography (2011): Analysis of the Spatiotemporal Distribution of Sea Surface Temperature in the Aegean Archipelago Using Data from the MODIS Aqua Sensor (in Greek) |
|-----------------|--|
| Z. Kavakli** | Aegean Geography (2011): Contribution of Geostatistics to the Delin- eation of Eutrophication Zones (in Greek) |
| M. Mihelakaki** | • Aegean Geography (2011): Geostatistical Study of the Covariation of Chlorophyll and Sea Surface Temperature from Satellite Images (in Greek) |
| S. Liodakis** | • Aegean Geography (2011): The Contribution of Geostatistics to Estimat- ing Fire Ignition and Spread Probability: The Case of Western Attica (in Greek) |
| S. Lappas | • Aegean Geography (2011): Extraction of Morphotectonic Characteristics via GIS: The Case of Lesvos (in Greek) |
| H. Papazoglou | • Aegean Geography (2011): Management and Restoration of the Amali Peninsula in Lesvos for Reducing Fire Danger via Geoinformatics (in Greek) |
| P. Kypriotellis | • Aegean Geography (2011): Operational Evaluation of the Web GIS "VIR- TUAL FIRE" for Forest Fire Management in Lesvos (in Greek) |
| K. Stefanidou** | • Aegean Geography (2011): Uncertainty Propagation of Wind Measure- ments in Fire Behavior Simulations (in Greek) |
| B. Rozakis | • Aegean Geography (2011): Design and Development of a GeoInformation System for Supporting Real Estate Services (in Greek) |
| Josh Bader | • UCSB Geography (2011): Degree by Examination |
| Marcio Sales** | UCSB Geography (2011): Degree by Examination UCSB Geography (2010): Estimating Interpolation Uncertainty of Forest Biomass Stocks and Carbon Emissions from Deforestation in the Brazilian Amazon Using Inventory Data and Geostatistics. Current Employment: Statistics Analyst, Instituto do Homem e Meio Ambiente da Amazônia (IMAZON), Brazil |
| Diego Pedreros | UCSB Geography (2009): The Effects of El Niño in Agricultural Water Balance in Guatemala |
| Keely Roth | • UCSB Geography (2009): A Combined Lidar and Hyperspectral Remote Sensing Analysis for Mapping Forest Biomass |
| Kathleen Rose | • UCSB Geography (2009): Degree by Examination |
| Nate Isbell | • UCSB Geography (2009): Procedures to Identify "Low Hanging Fruit" Spoke-and-Hub Airline Routes Ripe for Conversion to Point-to-Point Op- erations |
| Ben Holland** | UCSB Geography (2006): Developing Alternative Null Hypotheses for Testing the Significance of Global Indices of Spatial Association. Current Employment: Geospatial Analyst, SPADAC Inc., McLean, Vir- ginia |
| Kirk Goldsberry | • UCSB Geography (2004): Stabilizing Rate of Change in Thematic Map Animations |
| Mich. Robinson | • UCSB Geography (2004): The Effects of Lake Hydrology and Bootstrap- ping of Reservoir Inflow on Reservoir Capacity |
| Barry Hooper | • UCSB Geography (2003): Spatial and Temporal Analysis of Controls on Soil Carbon Dioxide Flux at the Hillslope Scale in California Oak Savanna |

Nicholas Matzke

- UCSB Geography (2003): Remote Sensing and Geostatistical Analysis of Anthropogenic Biomass Burning and Forest Degredation in Madagascar
- UCSB Geography (2002): A Point-based Regression Analysis of Industrial Location

Administrative Service

At Cyprus University of Technology (CUT)

- Dean of the School of Engineering and Technology
- Chair of Disciplinary Committee for Academic and other Teaching Staff
- 2016- (co)Director of MSc Program in Geoinformatics and Geospatial Technologies
- 2016-17 Chair of the Dept. of Civil Engineering and Geomatics

At the University of the Aegean

- Faculty Representative of University Professors at the Senate of The University of the Aegean
- Director of Graduate Studies Program in: *Geography and Applied GeoInformatics* (Dept. of Geography)
- 2011-12 Strategic Research Committee (Dept. of Geography)
- 2011-12 Internal Evaluation Committee (Dept. of Geography)
- Geoinformatics in the Social Sciences Faculty Recruitment Committee (Dept. of Geography)
- Undergraduate Program Committee (Dept. of Geography)

At UCSB

Chair of Committee (**)

- Vice Chair (Dept. of Geography)
- 2012-14 Graduate Advisor (Dept. of Geography)
- Vice Chair (Dept. of Geography)
- 2008-09 Graduate Advisor (Dept. of Geography)
- Land Use Land Cover Change (LULCC) Faculty Recruitment Committee (Dept. of Geography)
- Colloquium Committee** (Dept. of Geography)
- 2005-08 Diversity Committee (Dept. of Geography)
- Curriculum Committee (Dept. of Geography)
- Alternate delegate of the Department of Geography and UCSB to the University Consortium for Geographic Information Science (UCGIS)
- Computer Committee (Dept. of Geography)

Nicholas Nagle

Reviewer

Peer-reviewer for scientific journals

• International Journal of Geographical Information Science, IEEE Transactions on Geoscience and Remote Sensing, Computers & Geosciences, Geographical Analysis, Spatial Statistics, International Journal of Climatology, Journal of Applied Remote Sensing, Advances in Meteorology, Environment and Planning B, Transportation Letters, Southern African Institute of Mining and Metallurgy, Environmental Science and Pollution Research, Mathematical Geosciences, Remote Sensing of Environment, Stochastic Environmental Research and Risk Assessment, International Journal of Remote Sensing, Computers Environment and Urban Systems, Water Resources Research, International Journal of Applied Earth Observation and Geoinformation, Cartography and Geographic Information Science, Journal of Geographical Systems, European Journal of Soil Science, Transactions in GIS, Chaos - Solitrons & Fractals, Canadian Journal of Forest Research, European Journal of Soil Science, IEEE Geoscience and Remote Sensing Letters, Ecology, Geography Compass, Journal of the American Water Resources Association, Journal of Hydrology, Journal of Hydrologic Engineering, Professional Geographer, Mathematical Geology, Photogrammetric Engineering and Remote Sensing, Annals of the Association of American Geographers, Environmental Science & Technology, Atmospheric Environment, Journal of Environmental Management, Society of Petroleum Engineers Journal, Computational Statistics & Data Analysis, Environmental and Ecological Statistics, Journal of Hydrometeorology, UNESCO Encyclopedia of Life Support Systems, Ecological Applications

Reviewer for funding agencies

• Swiss National Science Foundation, Austrian Science Fund, Kuwait Foundation for the Advancement of Sciences, US National Science Foundation, National Commission of Scientific Research of Chile, American Chemical Society

Personnel Reviewer – External Evaluator

- Evaluation of Dr. Gregoire Mariethoz for promotion to tenure (Stabilization) at the University of Lausanne, Switzerland
- Evaluation of Dr. Reinhard Furrer for promotion to tenured Associate Professor (Extraordinarius) at the Institute of Mathematics, University of Zurich, Switzerland
- Evaluation of Dr. Thomas Hansen (along with two other candidates) for promotion to Associate Professor in Computational Geoscience at the National Space Institute, Technical University of Denmark
 - Evaluation of Dr. Stefan Leyk for promotion to Associate Professor in GIScience, Department of Geography, University of Colorado Boulder, U.S.A.

Membership in Professional Organizations

- Computer Applications and Quantitative Methods in Archaeology (CAA)
- Hellenic Society for Geographical Information Systems (Hellas GIS)
- Association of American Geographers (AAG)
- American Geophysical Union (AGU)

Membership in Professional Organizations

- International Association for Mathematical Geosciences (IAMG)
- Geotechnical Chamber of Greece