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# Phaedon C. Kyriakidis Curriculum Vitae

Updated on April 2024

#### **Education**

- PhD: Department of Geological & Environmental Sciences, Stanford University, U.S.A.
   Specialization: Geostatistics in the Earth Sciences. Thesis advisor: Prof. André G. Journel.
- Ptychion (4-year BSc): Department of Geology, Aristotle University of Thessaloniki, Greece.

# **Professional Appointments**

- 2023-• (co)Director, MSc Program in Geoinformatics and Earth Observation, Dept. of Civil Engineering and Geomatics, Cyprus University of Technology. 2020-21 • Research Coordinator, Eratosthenes Centre of Excellence, Limassol, Cyprus 2018-20 • Affiliated Professor, Dept. of Geography, University of California Santa Barbara, U.S.A. • Dean, Faculty of Engineering and Technology, Cyprus University of Technology 2017-20 2016-22 • (co)Director, MSc Program in Geoinformatics and Geospatial Technologies, Dept. of Civil Engineering and Geomatics, Cyprus University of Technology 2016-17 Chair, Dept. of Civil Engineering and Geomatics, Faculty of Engineering and Technology, Cyprus University of Technology 2015-18 Adjunct Professor, Dept. of Geography, University of California Santa Barbara, U.S.A. 2015- Professor of Geoinformatics, Dept. of Civil Engineering and Geomatics, Faculty of Engineering and Technology, Cyprus University of Technology, Cyprus
- California Santa Barbara, U.S.A.

   Vice Chair, Dept. of Geography, University of California Santa Barbara, U.S.A.
- 2012-15 Professor of Geographic Information Science, Dept. of Geography, University of Cali-
- fornia Santa Barbara, U.S.A.

  2010-12 Director of Graduate Studies Program in: Geography and Applied Geo-Informatics,

Graduate Advisor (Director of Graduate Studies), Dept. of Geography, University of

- Dept. of Geography, University of the Aegean, Greece.
- Professor of Spatial Analysis, Dept. of Geography, University of the Aegean, Greece.
- Instructor on short-term contract at the Professorial level (presidential decree 407/1982), Dept. of Geography, University of the Aegean, Greece.

# **Professional Appointments**

- Graduate Advisor (Director of Graduate Studies), Dept. of Geography, University of California Santa Barbara, U.S.A.
- Vice Chair, Dept. of Geography, University of California Santa Barbara, U.S.A.
- Associate Professor of Geographic Information Science, Dept. of Geography, University of California Santa Barbara, U.S.A. on leave-of-absence (without salary) from September 2009 to December 2012.
- Faculty Staff, Earth Sciences Division, Berkeley National Laboratory, U.S.A.
- Assistant Professor of Geographic Information Science, Dept. of Geography, University of California Santa Barbara, U.S.A.
- 1999-00 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**

- 2023 Within top 2% of researchers worldwide scientific across fields according data published Elsevier BV bγ https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6. Composite score across scientific fields = 3.3730, and associated overall rank = 125, 130. Within top 1% of researchers worldwide in the subfield of Geological & Geomatics Engineering. Rank of composite score in subfield = 556, among 63,191 authors considered in that subfield. All scores reported are computed without self-citations.
- 2022 Within top 2% of researchers worldwide across scientific fields according to Elsevier data published BV by https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/4. Composite score across scientific fields = 3.369, and associated overall rank = 122,379. Within top 1% of researchers worldwide in the subfield of Geological & Geomatics Engineering. Rank of composite score in subfield =493, among 58,101 authors considered in that subfield. All scores reported are computed without self-citations.
- Passed Step 1 evaluation phase of ERC Advanced Grant call for proposals: Research proposal entitled A Simulation Framework Furnishing Insights into Maritime Human Mobility Potential in the Early Prehistoric Mediterranean (acronym SEABORNE) advanced to Step 2 evaluation phase of the 2022 Advanced Grants call for proposals administered by the European Research Council (ERC), but was not retained for funding. The proposal was submitted to the Social Sciences & Humanities panel SH7: Human Mobility, Environment and Space.
- Within top 2% of researchers worldwide across scientific fields based on data published by Elsevier BV https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3.
   Within top 1% of researchers worldwide in subfield of Geological & Geomatics Engineering.

2021

Best poster award: "Enhancing Human Security through the GeoSpatioTemporal Profile Assessment Tool" (lead-author Savvas Chrysoulidis), presented (on-line) at AGILE 2021: 24<sup>th</sup> Conference on Geoinformation Science, Annual Conference of the Association of Geographic Information Laboratories in Europe (AGILE), on June 2021 on-line.

2020

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 score across scientific fields = 3.365, and associated overall rank = 116,790.
 Within top 1% of researchers worldwide in the subfield of Geological & Geomatics Engineering. Rank of composite score in subfield = 440, among 44,176 authors considered in that subfield. All scores reported are computed without 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.

2017

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: 20<sup>th</sup> 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 Mediter-ranean 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.

2015

• 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.

2014

• Best paper award: "Efficient simulation of (Log)Normal Random Fields for Hydrogeological Applications" (co-authored with Gaganis), published in *Mathematical Geo*sciences, 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).

- 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
  - 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 9<sup>th</sup> International Symposium on Spatial

one of the 14 proposals (out of the 206 retained) that was funded as interdisciplinary –

Accuracy Assessment in Natural Resources and Environmental Sciences, Leicester, UK, July 20-23.

2010

- 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 = 89; number of citations = 3404; **h-index = 30**; number of citations excluding self citations of all (co)authors = 3098; **h-index = 29**; search date: April 02, 2024.
- [Web of Science] Total number of publications = 87; number of times cited = 2983; number of citing articles = 2544; **h-index = 28**; search date: April 02, 2024.
- Google [Google Scholar] Number of citations = 5648. **h-index = 36**. Search date: April 02, 2024.

## Invited Keynote Speaker

- Geostatistical Simulation for Efficient Uncertainty Propagation in Models with Spatially
  Distributed Parameters, 4th Congress on Geographical Information Systems and Spatial
  Analysis in Agriculture and Environment, Agricultural University of Athens, Greece,
  May 24-26.
- 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, CAA-GR 2020 Sessions: Current Status and the Future of Digital Archaeology in the Eastern Mediterranean, 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.
- 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 Congress on Geographical Information Systems and Spatial Analysis in Agriculture and Environment, Agricultural University of Athens, Greece, December 11-13.
2018	<ul> <li>Eastern Mediterranean Science and Technology Centre of Excellence for Archaeology and Cultural Heritage (MedSTACH): Context, Vision, Mission &amp; Objectives, 10th Conference of the Hellenic Society for Geographical Information Systems, Athens, Greece, November 12-14.</li> </ul>
2014	• 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 11-12.
2008	<ul> <li>Perspectives on geostatistical downscaling, geoENV 2008: 7<sup>th</sup> International Conference on Geostatistics for Environmental Applications, Southampton, UK, September 8-10.</li> </ul>
2006	• Towards a systems approach to the visualization of spatial uncertainty, 7 <sup>th</sup> 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 ecological models, <i>International Statistics Institute (ISI) Cutting Edge Conference on Spatial Statistics for Production Ecology, GIS, Remote Sensing, and Modeling</i> , Wageningen, The Netherlands, April 19-21.
2002	<ul> <li>Plenary discussant: Spatial Analysis and Modeling (SAM) Specialty Group of the Association of American Geographers (AAG), 98<sup>th</sup> Annual Meeting of the Association of American Geographers, Los Angeles, CA, March 19-23.</li> </ul>
	Editorial Boards
2023-	• Frontiers in Earth Science, Associate Editor – Geoinformatics
2021-	• Remote Sensing, MDPI Open Access Journal, Member of Editorial Board
2018-	• Cartographica, 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	• ISPRS International Journal of Geo-Information: Guest Editor (with Stefanakis and
	Liu) for a special issue on "Advances in Spatio-Temporal Data Analysis and Mining"
2006-07	• Encyclopedia of GIS: Field Editor for the field of Spatial Uncertainty and Imprecision in the encyclopedia edited by S. Shekhar and H. Xiong, and published in 2007 by

Springer

#### Scientific Committees & Panels

- Foundation for Research and Technology Hellas (FORTH): Evaluation Committee member for the first ever call for Synergy Grants administered by FORTH, aiming to promote interdisciplinary collaboration between at least two FORTH Institutes
- 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
- 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 Doctoral Dissertation Research Improvement grants awarded by the Geography & Regional Science Program of the National Science Foundation (NSF)

# Offices in Scientific Organizations

- Steering Committee member of CAA International, the Computer Applications & Quantitative Methods in Archaeology international organization
- <u>Council member elect</u> of AGILE, the Association of Geographic Information Laboratories in Europe
- <u>Board member elect</u> of HellasGIS, the Hellenic Geographic Information Systems Society
- Board member of the Spatial Analysis and Modeling (SAM) specialty group of the Association of American Geographers (AAG)

# Membership in Scientific Committees

- <u>GIScience 2023:</u> 12th International Conference on Geographic Information Science, Leeds, UK, 12-15, September, 2023 <u>link</u>
- <u>AGILE 2023:</u> 26th Conference on Geographic Information Science, Delft, The Netherlands, June 13-16, 2023 <u>link</u>
- 1st Conference on Future Challenges in Sustainable Urban Planning & Territorial Management, January 17-19, 2022 (online event) <u>link</u>
- <u>AGILE 2022:</u> 25th Conference on Geographic Information Science, Vilnius, Lithuania, June 14-17, 2022 <u>link</u>
- <u>CAA 2021</u>: Chair of the Local Organizing Committee of CAA 2021: Digital Crossroads, Annual Conference of the International Organization Computer Applications and Quantitative Methods in Archaeology (CAA), June 14-18, 2021 (online event) <u>link</u>
- <u>AGILE 2021</u>: **Co-Chair of the Scientific Program Committee** of the 24th Conference on Geographic Information Science, June 8-11, 2021 (online event) link
- <u>AGILE 2019</u>: Chair of the Scientific Program Committee of the 22nd Conference on Geographic Information Science, Limassol, Cyprus, June 17-20, 2019 <u>link</u>
- <u>CAA-GR 2018</u>: Chair of the Organizing Committee of the 3rd CAA-GR Conference: Spreading Excellence in Computer Applications for Archaeology and Cultural Heritage, Limassol, Cyprus, June 19-20, 2018 <u>link</u>

- 2019 Spatial Statistics 2019: Towards Spatial Data Science: 5th Conference on Spatial Statistics 2018 GIScience 2018: 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 IAMG 2017: 18th Annual Conference of the International Association for Mathematical Geosciences 2016 GIScience 2016: 9th International Conference on Geographic Information Science geoEnv 2014: 11th International Conference on Geostatistics for Environmental Applications • Spatial Statistics 2015: Emerging Patterns: 3rd Conference on Spatial Statistics 2015 • 1st Conference on Geographical Information Systems and Spatial Analysis in Agriculture and Environment, Athens, Greece 2014 GIScience 2014: 8th International Conference on Geographic Information Science geoEnv 2014: 10th International Conference on Geostatistics for Environmental Applications 2013 Spatial Statistics 2013: 2nd Conference on Spatial Statistics RSCy 2013: First International Conference on Remote Sensing and Geoinformation of the Environment, Paphos, Cyprus 1st Conference on Spatial Analysis, Harokopeion University, Athens, Greece 2012 • GIScience 2012: 7th International Conference on Geographic Information Science geoEnv 2012: 9th International Conference on Geostatistics for Environmental Applications 2011 ECQTG 2011: 17th European Colloquium on Theoretical and Quantitative Geography Spatial Statistics 2011 - Mapping Global Change: 1st Conference on Spatial Statistics 2010 GIScience 2010: 6th International Conference on Geographic Information Science Spatial Accuracy 2010: 9th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences 2009 • IAMG 2009: 2009 Annual Conference of the International Association for Mathematical Geosciences • StatGIS 2009: GeoInformatics for Environmental Surveillance Conference • IGARSS 2009: 2009 IEEE International Geoscience and Remote Sensing Symposium ASCE/EWRI KSTAT-3 Standard: 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
    - geoENV 2008: 7th European Conference on Geostatistics for Environmental Applications
- <u>geoENV 2006</u>: 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

- Geostatistics Banff 2004: 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
- 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
- <u>Assessment of Non-Point Source Pollution in the Vadose Zone</u>: Member of Scientific Committee for book edited by D.L. Corwin, K. Loague, and T.R. Ellsworth, and published by AGU Press
- geoENV II: 2nd European Conference on Geostatistics for Environmental Applications

## **Grants & Contracts**

- Lc3: Limassol City Cooling Challenge. PI: Hadzilacos, The Cyprus Institute; Co-PI, Kyriakidis. Funding Source: NetZero Cities H2020-LC-GD-2020 / H2020-LC-GD-2020-2. Budget: €1.5M. CUT budget €200,000.
- ENGINEER: Civil engineering and geomatics innovative research on heritage. PI: Agapiou, CUT; Co-I, **Kyriakidis**. Funding Source: HORIZON-WIDERA-2021-ACCESS-03. Budget: €1.272*M*. CUT budget €720,000.
- 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.

#### **Grants & Contracts**

- ΘΑΛ-ΧΩΡ 2: Trans-border Collaboration for the application of Marine Spatial Planning. PI: Cyprus Deputy Ministry of Shipping. CUT-PI: 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. Pl: Miller, Co-Pls: 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. Pl: Goodchild, Co-Pl: **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.

#### **Grants & Contracts**

- Remote Assessment of Giant Kelp Dynamics The Engineer of California's Near-Shore Ecosystems. Pl: Siegel, Co-I: **Kyriakidis**. Funding source: National Aeronautics and Space Administration (NASA). Budget: \$859,049.
- 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.
- A Geostatistical Framework for Downscaling Spatial Data. PI: Kyriakidis. Funding source: National Science Foundation (NSF). Budget: \$125,002.
- 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.
- Strategic Enhancement of NGA's Geographic Information Science Infrastructure PI: Goodchild, Co-I: **Kyriakidis**. Funding source: National Geospatial-Intelligence Agency (NGA). Budget: \$693,000.
- Instructional Improvement Grant: An Integrated Software Environment for Enhanced Geographic Education. Pls: Sweeney and Kyriakidis. Funding source: Academic Senate University of California Santa Barbara. Budget: \$24,000.
- A Systems Approach to the Visualization of Spatial Uncertainty. PI: **Kyriakidis**. Funding source: National Science Foundation. Budget: \$69,951.
- Sub-County Population and Household Projections for SCAG Sub-Regions, Cities, and Unincorporated Areas to 2025. Pl: Sweeney, Co-Pl: **Kyriakidis**. Funding source: Southern California Association of Governments (SCAG). Budget: \$74,937.
- 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

- Hadjipetrou, S., Mariethoz, G., and **Kyriakidis**, P. (2023): Gap-filling Sentinel-1 offshore wind speed image time series using multiple-point geostatistical simulation and reanalysis data, *Remote Sensing*, 15(2), 409; https://doi.org/10.3390/rs15020409.
- Panagiotou, C., Tziritis, E., and Kyriakidis, P. (2022): Application of geostatistical methods to groundwater salinization problems: A review, *Journal of Hydrology*, 615(Part A), 128566; https://doi.org/10.1016/j.jhydrol.2022.128566.
- **Kyriakidis**, P., Moutsiou, T., Nikolaidis, A., Reepmeyer, C., Leventis, G., Demesticha, S., Akylas, E., Kassianidou, V., Michailides, C., Zomeni, Z., Bar-Yosef Mayer, D.E., Makovsky, Y., and McCartney, C. (2022): Virtual sea-drifting experiments between the island of Cyprus and the surrounding mainland in the early prehistoric Eastern Mediterranean, *Heritage*, 5(4), 3081-3099; https://doi.org/10.3390/heritage5040160.
- García-Ayllón, S., and **Kyriakidis**, P. (2022): Spatial analysis of environmental impacts linked changes in urban mobility patterns during COVID-19: Lessons learned from the Cartagena case study, *Land*, 11(1), 81; https://doi.org/10.3390/land11010081.
- Hadjipetrou, S., Liodakis, S., Sykioti, A., Katikas, L., Park, N.-W., Kalogirou, S., Akylas, E., and **Kyriakidis**, P. (2022): Evaluating the suitability of Sentinel-1 SAR data for offshore wind resource assessment around Cyprus, *Renewable Energy*, 182, 1228-1239; https://doi.org/10.1016/j.renene.2021.10.100.
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## **Dissertations**

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# In Meetings & Workshops

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- 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
- Greek Ministry of Culture and Sports, Athens, Greece 03/03/2018
- Greek National Tourism Organization, Athens, Greece 23/02/2018
- 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.
- **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 above-ground forest biomass using geostatistics: A case study of Rondonia, southern Brazilian Amazon. LBA-ECO 9<sup>th</sup> 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.
- 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 Geo-computation 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.
- 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, Hydrogeology 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**

- <u>Dr. Dimitris Kavroudakis</u> Geographer, PhD University of Sheffield, UK. <u>Funding source:</u> Greek General Secretariat of Research and Technology.
- Dr. No-Wook Park: Senior researcher from the (South) Korea Institute of Geoscience and Mineral Resources (KIGAM). <u>Funding source</u>: 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.

# 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** 

• <u>Spatial Analysis and Geostatistics</u>, 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, MSc-level, 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 remotely-sensed 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.

# University of the Aegean Catalog Courses

Geo-A-101

<u>Spatial Analysis</u>, 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

• <u>Spatial Statistics</u>, 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

• <u>Multivariate Analysis</u>, 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

• <u>Analytical Methods in Geography II</u>, Graduate-level, compulsory, 4 units. Statistical 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 Mediterranean 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)

 Geostatistics Software Library, Stanford Center for Reservoir Forecasting, Stanford, May 1998 California (5-day short course with Prof. Journel) • Geostatistics Software Library, Stanford Center for Reservoir Forecasting, Stanford, May 1999 California (5-day short course with Prof. Journel)

Aug 1997 Introduction to Geostatistics, National Center for Geographic Information and Analysis, Santa Barbara, California (3-day short course)

#### **Graduate Student Committees**

#### Ph.D. Committees

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

• Department of Civil Engineering and Geomatics, Cyprus University of
Technology (2023): Stochastic Reconstruction of Sentinel-1 Wind Speed
Image Time Series via Multiple-Point Geostatistical Simulation
<ul> <li>School of Rural and Surveying Engineering, National Technical University</li> </ul>

of Athens (2022): Spatial Decision Support System for Offshore Wind Farm Siting using Geographic Information Systems, Spatial Analysis and **Optimization** 

- Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Asphalt Pavement Condition Assessment Using Remote Sensing Techniques
- UCSB Department of Geography (2020): Rethinking Fundamentals of GIScience from a Higher-Order Perspective
- 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
- UCSB Department of Geography (2020): The Tale of Western Chitwan Community Forests: Historical Vegetation Dynamics and the Challenges with the Invasion of Mikania micrantha
- 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)
- Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Reducing Statistical Uncertainty in Geotechnical Engineering Design Relying on Targeted Field Investigation: A Random Field Approach
- Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Monitoring and Assessment of the Impact of Natural Hazards on Infrastructure Resilience using Earth Observation Techniques
- 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

S. Had

L. Kati

Ch. Mettas

R. Zhu\*

K. Kouros

J. Dai

M. Alverti

P. Christodoulou

M. Tzouvaras

Th. Dimopoulos

- 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 Levantine and Cyprus Sea
- X. Andrianou
- Cyprus International Institute for Environmental and Public Health, Faculty of Health Sciences, Cyprus University of Technology (2019): Definition and Application of the Urban Exposome Study Framework: From Stakeholders' Perspectives to Non-Communicable and Communicable Diseases Epidemiology
- B. Romero
- UCSB Department of Geography (2019): Identifying Geographical Features with Spatial Data: Multi-scale Approaches for Representing Local Extrema
- I. Maina
- University of the Aegean, Department of Oceanography and Marine Biosciences (2019): Exploiting Vessel Monitoring System (VMS) data for Fisheries Management
- I. Tsiplakidis
- National Technical University of Athens, School of Rural and Survey Engineering (2019): Prototype Methodological Framework for Analyzing Correlations and Modeling Spatiotemporal Interactions between Natural Hazards 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 Uncertainty 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 Modeling
- S. Liodakis\*\*
- Department of Geography, University of the Aegean (2017): Computationally Efficient Geostatistical Simulation for Uncertainty Propagation in Models with Spatially Distributed Parameters. Note: 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 Epidemiological Study of Lung Cancer in Crete from 2000 to 2013. Association with Demographic and Environmental Risk Factors (in Greek)
- J.-H. 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 Remote Sensing for Monitoring Water Quality in Case-2 (Inland and Coastal) Water Bodies (in Greek)

P. Palaiologou

• University of the Aegean, Geography Department (2015): Behavior Fore-casting Design and Impact Assessment of Forest Fires Using Geoinformatics (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 Business 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): Spatial Analysis 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): *Improved Facies Modeling with Multivariate Spatial Statistics* 

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 Kris Kuzera • UCSB Geography (2011): Fire Risk in California

 Joint SDSU/UCSB Ph.D. Program (2011): Climate and Climate Change and Infectious Disease Risk in Thailand: A Spatial Study of Dengue Hemorrhagic 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 Modeling of Dynamic Fluvial Systems

Ph. Schneider

• UCSB Geography (2008): Modeling Spatial Patterns of Wildfire Susceptibility 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 • UCSB Geography (2005): An Assessment of Hyperspectral and Lidar Re-Matthew Clark 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 Spatial Analysis in the Social Sciences. Current Employment: Assistant Professor, 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 Biogeochemistry in the Southwestern Amazon M.Sc./M.A. Committees Chair of Committee (\*\*) I. Florides\*\* Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Solar Energy Estimation from Rooftop Photovoltaic Systems using Geographic Information Systems (in Greek) M. Demosthenous\*\* • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2021): Confronting Urban Heat Island: Green Roof Assessment using Geographic Information Systems (in Greek) F. Fayad\*\* • Department of Civil Engineering and Geomatics, Cyprus University of Technology (2020): Spatial Downscaling of Wind Prediction Derived from

G. Ioannou

N. Nikas\*\*

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

• University of the Aegean, Department of Geography (2015): Investigation of Probable Sea Routes of Metal Transport in the Aegean Sea during the First Half of the 2nd Millennium BC, using Geographical Information

and Effective Recording of Natural Disaster Events (in Greek)

Systems and Numerical Weather Forecasting Models (in Greek)

- A. Davis
- UCSB Department of Geography (2015): Investigating Place Attitudes in Santa Barbara, CA
- J.-H. Kim
- UCSB Department of Geography (2015): Harvesting Geospatial Intelligence 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): Spatiotemporal Analysis of Vineyard Extent (and Corresponding Agricultural Production) as a Function of Biophysical and Climatic Factors in Greece (in Greek)
- K. Lagkou
- University of the Aegean, Department of Geography (2015): Methods for Forest Ecosystems Management and Fire Danger using Geoinformatics (in Greek)
- S. Meerdink
- UCSB Department of Geography (2014): Linking Seasonal Foliar Chemistry 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): Simulation 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): Spatial Analysis of Accessibility to Islands of the North and South Aegean (in Greek)
- B. Rastogi
- UCSB Department of Geogaphy (2013): Characterizing Spatial and Temporal Patterns of Cloud Cover and Fog Inundation for the Northern Channel 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 Delineation 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 Estimating 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 Measurements 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 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

• UCSB Geography (2009): A Combined Lidar and Hyperspectral Remote

Keely Roth

Sensing Analysis for Mapping Forest Biomass
 UCSB Geography (2009): Degree by Examination

Kathleen Rose Nate Isbell

• UCSB Geography (2009): Procedures to Identify "Low Hanging Fruit" Spoke-and-Hub Airline Routes Ripe for Conversion to Point-to-Point Operations

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, Virginia

Kirk Goldsberry

• UCSB Geography (2004): Stabilizing Rate of Change in Thematic Map Animations

UCSB Geography (2004): The Effects of Lake Hydrology and Bootstrap-  ming of Recognitive and Recognitive Connective
<ul> <li>ping of Reservoir Inflow on Reservoir Capacity</li> <li>UCSB Geography (2003): Spatial and Temporal Analysis of Controls on</li> </ul>
Soil Carbon Dioxide Flux at the Hillslope Scale in California Oak Savanna  • 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)
2023-	• Faculty Representative of the Dept. of Civil Engineering and Geomatics to the School of Engineering and Technology at CUT
2022-24	Vice President of CUT's Student Welfare Charity Association
2020-22	Board Member of CUT's Student Welfare Charity Association
2017-21	Chair of Disciplinary Committee for Academic and other Teaching Staff
2017-20	Dean of the School of Engineering and Technology
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
2011-12	• Faculty Representative of University Professors at the Senate of The University of the Aegean
2010-12	• 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)
2011	• Geoinformatics in the Social Sciences Faculty Recruitment Committee (Dept. of Geography)
2011	<ul> <li>Undergraduate Program Committee (Dept. of Geography)</li> </ul>
	At UCSB
	Chair of Committee (**)
0010 14	
2012-14	• Vice Chair (Dept. of Geography)

	Chair of Committee (**)
2012-14	<ul> <li>Vice Chair (Dept. of Geography)</li> </ul>
2012-14	<ul> <li>Graduate Advisor (Dept. of Geography)</li> </ul>
2008-09	<ul> <li>Vice Chair (Dept. of Geography)</li> </ul>
2008-09	<ul> <li>Graduate Advisor (Dept. of Geography)</li> </ul>
2008	• Land Use Land Cover Change (LULCC) Faculty Recruitment Committee (Dept. of
	Geography)
2005-08	<ul> <li>Colloquium Committee** (Dept. of Geography)</li> </ul>
2005-08	<ul> <li>Diversity Committee (Dept. of Geography)</li> </ul>

#### **Administrative Service**

2004-05 • 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)

## Reviewer

# 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

- Nomination of Prof. Clayton Deutsch for Fellowship in the Royal Society of Canada.
- 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.

## 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 - Solitons & 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

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