Andrew Pavlides

School of Mineral Engineering   Phone: $+$30 28210 37705

Technical University of Crete, Greece   Email: apavlides24@yahoo.com

Professional Interests

- Geostatistics (Reserves estimation, spatial and temporal gap filling)

- Data Analysis (inc. time series, data mining, sensitivity analysis)

- Earth Observation (biophysical parameters estimation, operational products)

Education

2009–2016	Ph.D., Mineral Resources Engineering, Technical University of Crete
	Thesis Title: Development of new geostatistical methods for spatial analysis and applications in reserves estimation and quality characteristics of coal deposits
	Supervisor: Professor D.T.Hristopulos
2005-2008	M.Sc., Geotechnology and Environment, Technical University of Crete
1998–2005	B.Sc., Mineral Resources Engineering, Technical University of Crete

Professional Appointments

2019–present	Teaching Assistant. Technical University of Crete, teaching assistant for the course of "Statistics for Engineers" and "Geostatistics".
2017–present	Scientific collaborator. Technical University of Crete, laboratory of Geostatistics.
2012–2018	Teaching Assistant. Technical University of Crete, teaching assistant for the courses of "Statistics for Engineers" and "Applied Geostatistics".
2020–2021	Researcher, School of Mineral Engineering, Technical University of Crete. Project: "Gaussian Anamorphosis with Kernel Estimators for Spatially Distributed Data and Time Series and Applications in the Analysis of Precipitation."
2016	Invited Scholar and Teaching Assistant, University of Liège, teaching assistant (GeoKTPro Scholar Funding) during the winter semester of EMerald postgraduate program for the course of "Geostatistics".
2013–2015	Researcher, Department of Mineral Engineering, Technical University of Crete. Project: ARISTEIA SPARTA 1591 - "Development of spatiotemporal random fields based on local interaction models and applications on processing of spatiotemporal data"
2006–2007	Researcher, Department of Mineral Engineering, Technical University of Crete. Project: PYTHAGORAS II - "Development of novel geostatistical methods in environmental pollutant mapping and environmental risk assessment "

Thesis Supervisory Committee Member

2020	Manolis Thanasis,	School of Mineral Resources Engineering, Technical University of Crete
2020	Giannis Tsepetakis,	School of Mineral Resources Engineering, Technical University of Crete
2017	Matenidis Panagiotis,	School of Mineral Resources Engineering, Technical University of Crete

Selected Honours and Awards

2012   School of Mineral Resources Engineering, ΕΛΚΕ scholarship for graduate students and Ph.D. candidates for the spring semester of 2011-2012

Publications

Journals

1. **A. Pavlides**, V. D. Agou, D. T. Hristopulos (2022). Non-parametric Kernel-Based Estimation and Simulation of Precipitation Amount. Journal of Hydrology, Volume 612, Part A, 127988.

2. V. D. Agou, **A. Pavlides**, D. T. Hristopulos (2022). Spatial Modeling of Precipitation Based on Data-Driven Warping of Gaussian Processes. Entropy, 24(3), 321. DOI: 10.3390/e24030321

3. D. T. Hristopulos, **A. Pavlides**, V. D. Agou, and P. Gkafa (2021). Stochastic Local Interaction Model: An Alternative to Kriging for Massive Datasets. Mathematical Geosciences 53, 1907–1949 (2021). DOI: 10.1007/s11004-021-09957-7

4. G.P. Petropoulos, A. Maltese, T. Carlson, G. Provenzano,**A. Pavlides**, D.T. Hristopulos, F. Capodici, C. Chalkias, G. Dardanelli, S. Manfreda (2020). Exploring the use of Unmanned Aerial Vehicles (UAVs) with the simplified 'triangle' technique for soil water content and evaporative fraction retrievals in a Mediterranean setting. International Journal of Remote Sensing, 42(5), 1623-1642. DOI: 10.1080/01431161.2020.1841319

5. A. Anand, R.K.M. Malhi, P.C. Pandey, G.P. Petropoulos, **A. Pavlides**, J.K. Sharma, P.K. Srivastava (2020). Use of Hyperion for Mangrove Forest Carbon Stock Assessment in Bhitarkanika Forest Reserve: A Contribution Towards Blue Carbon Initiative. Remote Sensing, 12(4), 597. DOI: 10.3390/rs12040597

6. K. Deng, S. Lamine., **A. Pavlides**, G.P. Petropoulos, Y. Bao, P.K. Srivastava, Y. Guan (2019). Large Scale Operational Soil Moisture Mapping from Passive MW Radiometry: SMOS product evaluation in Europe & USA, International Journal of Applied Earth Observations and Geoinformation,80, 206-217. DOI: 10.1016/j.jag.2019.04.015

7. K. Deng, S. Lamine, **A. Pavlides**, G. P. Petropoulos, P. K. Srivastava, Y. Bao, D.T. Hristopulos, V. Anagnostopoulos (2019). Operational Soil Moisture from ASCAT in Support of Water Resources Management, Remote Sensing, 11(5), 579. DOI: 10.3390/rs11050579

8. **A. Pavlides**, D. Hristopoulos, Z. Agioutantis, and C. Roumpos. Spatial modeling of lignite energy reserves for exploitation planning and quality control, Energy, 93:1906–1917, December 2015. DOI: 10.1016/j.energy.2015.10.049

Conferences

1. P. Gkafa, **A. Pavlides**, Ch. Roumpos, D. T. Hristopulos " Geostatistical Estimation of Coal Reserves in Kardia Mine using Kriging and Conditional Simulation Methods " 14th International Symposium of Continuous Surface Mining, ISCSM2018, Thessaloniki, Greece.

2. **A. Pavlides**, D. T. Hristopulos, M. Galetakis, and Ch. Roumpos. " Evaluation of reserves using geostatistical tools to assist with long-term and mid-term mine planning " Proceedings of AIMS (Aachen International Mining Symposia): Mineral resources and mine development, Aachen, Germany, www.aims.rwth-aachen.de, 2015, RWTH Aachen University, pp 459-472.

3. **A. Pavlides**, D. T. Hristopulos, M. Galetakis, and Ch. Roumpos. "Geostatistical analysis of the calorific value and energy content of the Mavropigi multi-seam lignite deposit in Northern Greece" Proceedings of AIMS (Aachen International Mining Symposia): Mineral resources and mine development, Aachen, Germany, www.aims.rwth-aachen.de, 22-23 May, 2013, RWTH Aachen University, pp 199-209.

4. **A. Pavlides**, D. T. Hristopulos, Z. Agioutantis, and Ch. Roumpos (2011). "Evaluation of Multilayer Deposit Layers using a Profitability Index" Proceedings of AIMS (Aachen International Mining Symposia): Sustainable Development in the Minerals Industry - From Primary Production to Sustainable Supply Chains, Aachen, Germany, www.aims.rwth-aachen.de, 14-17 June, 2011, RWTH Aachen University. pp 317-324

5. **A. Pavlides**, D. T. Hristopulos, Z. Agioutantis, K. Kavouridis and Ch. Roumpos, Comparison of lignite reserves estimates in the multilayer deposit of the Amyndeo mine, 2nd International Workshop on Geoenvironment and Geotechnics (GEOENV 2008), 8-9 September 2008, Milos, Greece, pp. 231-236.

6. **A. Pavlides**, D. T. Hristopulos, Z. Agioutantis, K. Kavouridis and C. Roumpos, Geostatistical Analysis of Lignite Calorific Values from a Multiseam Deposit, Proceedings, 3rd International Conference on Sustainable Development Indicators in the Minerals Industry (SDIMI 2007), 17-20 June 2007, Milos, Greece pp. 137-144.

7. **A. Pavlidis**, D.T. Hristopulos and M. Galetakis, 'Prediction of long-term quality fluctuations in the South Field lignite mine of West Macedonia', Proceedings of the 2nd International Symposium on Advances in Mineral Resources Management and Environmental Geotechnology, Hania 2006, Greece, 163 – 168

Book chapters

1. P. Singh, P. Pandey, G.P. Petropoulos, **A. Pavlides**, P.K. Srivastava, N. Koutsias, K.A.K. Deng, Y. Bao. (2020). Hyperspectral remote sensing in precision agriculture: present status, challenges, and future trends. Hyperspectral Remote Sensing, Theory and Applications, A volume in Earth Observation (pp. 121–146)

2. G.P. Petropoulos, I. Sandric, **A. Pavlides**, D.T.Hristopulos. (2020). A preliminary evaluation of the 'simplified triangle' with Sentinel-3 images for mapping surface soil moisture and evaporative fluxes: results obtained in a Spanish savannah environment. Agricultural Water Management, Theories and Practices (pp. 209–226)

Theses and dissertations

1. **Pavlides, A**. (2016). Development of new geostatistical methods for spatial analysis and applications in reserves estimation and quality characteristics of coal. PhD Dissertation. Technical University of Crete.

2. **Pavlides, A**. (2008). Comparison of lignite reserve estimation methods in the Amyndaio mine and development of profitability index. M.Sc. Dissertation. Technical University of Crete.

3. **Pavlides, A**. (2005). Geometric correction and evaluation of Aerophotos (Greek title: Γεωμετρική διόρθωση αεροφωτογραφιών και αξιολόγηση αεροφωτογράφιων). Diploma Thesis. Technical University of Crete.

Contributed Presentations

1. D. T. Hristopulos, V. D. Agou, **A. Pavlides**, " Data-driven Warping of Gaussian Processes for Spatial Interpolation of Skewed Data " EGU General Assembly 2022, Vienna, Austria. DOI: 10.5194/egusphere-egu22-6288

2. V.D. Agou, **A. Pavlides**, D. T. Hristopulos. "Space-Time Analysis of Precipitation Reanalysis Data for the Island of Crete using Gaussian Anamorphosis with Hermite Polynomials" EGU General Assembly 2021, Vienna, Austria, April 19 – 30 2021.

3. S. Lamine, K. Deng, **Pavlides, A**, Y. Bao, P.K. Srivastava, G.P. Petropoulos and D. T. Hristopulos. Operational Surface Soil Moisture Products in support to water resources management in agriculture in the face of climate change.In EGU General Assembly 2019, Vienna, Austria, April 7 – 12 2019.

4. D. T. Hristopulos, **A. Pavlidis**, V. Agou, and P. Gkafa. Introduction to a stochastic local interaction model and its applications. In Nineteenth Annual Conference of the International Association for Mathematical Geosciences, Olomouc, Czech Republic, September 2 – 8 2018.

5. **Pavlides, A**., Hristopulos, D.T. and Olea, R. "Estimation of Coal Reserves: Comparison of the Stochastic Local Interaction Model and Ordinary Kriging with an Application to a Coal Deposit in Wyoming, USA." 35th International Geological congress. Cape Town, South Africa, 27 August – 4 September 2016.

Professional Activities

- Member of Senseco COST Action "Optical synergies for spatiotemporal sensing of scalable ecophysiological traits", 2019-present.

- Reviewer, Hydrology, MDPI 2022. [IF: 2.173]

- Reviewer, Environmental Modeling and Software, 2019. [IF: 4.177]

- Reviewer, European Journal of Remote Sensing, 2019. [IF:1.122]

- Reviewer, International Journal of Remote Sensing, 2019- present. [IF: 1.724]

- Reviewer, International Journal of Mining and Mineral Engineering, 2019. [IF: 0.337]

- Reviewer, Stochastic Environmental Research and Risk Assessment, 2017. [IF: 2.668]