

CURRICULUM VITAE

RESEARCH INTERESTS

Applied Geophysics, Development of Algorithms for Joint inversion of geophysical data, Seismic tomography, Urban Geophysics, Marine Geophysics, Integration of Geophysical Methods for Geotechnical, Environmental and Archaeological applications

EDUCATION

2017- present: PhD candidate in Applied Geophysics, School of Geology, Aristotle University of Thessaloniki, Greece
2015-2017: MSc in Applied Geophysics, School of Geology, Aristotle University of Thessaloniki, Greece (Msc Degree:9.58/10). Master Thesis: "Contribution to the joint application of seismic and geoelectrical tomographic methods"

2000-2008: BSc in Geology, School of Geology, Aristotle University of Thessaloniki, Greece (Bachelor Degree:6.54/10)
Diploma Thesis: "Seismic monitoring of volcanoes: Case of Santorin"

CURRENT POSITION

2017-present: PhD Fellow, GeoSat ReSeArch Lab, IMS-FORTH

The position provides me access to Noggin GPR 250MHz and 500MHz, Iris Syscal Pro resistivity meter, Pasi GEA 24 seismograph, RTK-GNSS GPS, Sensys Multichannel Gradiometer. Any costs for the use of the instruments will be borne by me.

FELLOWSHIP, AWARDS, RESEARCH GRANTS

2017-2019: Phd Fellowship by "Stavros Niarchos Foundation – FORTH Fellowship" within the project ARCHERS
2019:ISAP (International Society for Archaeological Prospection) Bursary for attending ICAP 2019

EXPERIENCE WITH GEOPHYSICAL INSTRUMENTATION & SOFTWARES

Programming in C, Fortan & MATLAB

Instruments: StrataView Geometrics, RM15, Syscal Pro, Lippmann 4point light 10W, City Shark, Noggin GPR, CMD Mini Explorer, Sensys Multichannel Cart based Gradiometer, GPS/D-GPS equipment

Softwares: Seisimager, Seismic Unix, Res2DINV, Res3DINV, DC_2DPRO, EarthImager2D, EarthImager3D, SURFER, Voxler, OasisMontaj, ArcGIS, Associated Softwares with respective instrumentation

PUBLICATION

Anthymidis, M., Papazachos, C., Ohrnberger, M., Savvaidis, A., Theodoulidis, N., **Oikonomou**, D., Evaluation of the 3D Near-Surface Velocity Structure in an Urban Environment from Ambient Noise Array Tomography: The Case of the City of Thessaloniki (Northern Greece), *Bulletin of the Seismological Society of America* (2022) 112 (5): 2587–2605.

Gorokhovich, Y., Cawse-Nicholson, K., Papadopoulos, N., **Oikonomou**, D., Use of ECOSTRESS data for measurements of the surface water temperature: Significance of data filtering in accuracy assessment *Remote Sensing Applications: Society and Environment*, 2022, 26, 100739

Alevizos, E., **Oikonomou**, D., Argyriou, A.V., Alexakis, D.D., Fusion of Drone-Based RGB and Multi-Spectral Imagery for Shallow Water Bathymetry Inversion, *Remote Sensing*, 2022, 14(5), 1127

N. Papadopoulos, **D. Oikonomou**, K. Simyrdanis, M.H. Loke (2022). Practical considerations for shallow submerged archaeological prospection with 3-D electrical resistivity tomography. *Archaeological Prospection*, 2022, 29, pp. 103–123, DOI: 10.1002/arp.1841

Papadopoulos, N., **Oikonomou, D.**, Cantoro, G., Simyrdanis, K., Beck, J.(2021). Archaeological prospection in ultra-shallow aquatic environments: the case of the prehistoric submerged site of Lambayanna, Greece. *Near Surface Geophysics*, 2021, 19(6), pp. 677–697, DOI: 10.1002/nsg.12174

Simyrdanis, K., Papadopoulos, N., **Oikonomou, D.**, Computation of optimized electrode arrays for 3-D electrical resistivity tomography surveys, *Applied Sciences* (Switzerland), 2021, 11(14), 6394

Beck, J., Koutsoumba, D., Sakellariou, D., Surdez, M., Anselmetti, F., Papadopoulos, N., Morfis, I., Panagiotopoulos, I., Rousakis, G., **Oikonomou, D.**, Simyrdanis, K., Cantoro, G., Argyriou, A., Emery, P.B., Krijnen, A., Tsampouraki-Kraounaki, K., Searching for Neolithic sites in the Bay of Kiladha, Greece, *Quaternary International*, 2021, 584, pp. 129–140

M.H. Loke, N. Papadopoulos, P.B. Wilkinson, **D. Oikonomou**, K. Simyrdanis and D. Rucker. (2020) The inversion of data from very large 3-D ERT mobile surveys. *Geophysical Prospecting*, 1-19. <http://dx.doi.org/10.1111/1365-2478.13008>

CONFERENCES

Simon, F.-X., Papadopoulos, N., Guillemoteau, J., **Oikonomou, D.**, Simyrdanis, K., Multi-frequency loop electromagnetic system measurement on shallow offshore archaeological site of oulos, *ArcheoSciences*, 2021, 45(1), pp. 215–218

Gabor, B., Papadopoulos, N., **Oikonomou, D.**, Was there a castle in Csaba?" - Geophysical investigation of a destroyed castle, Destroyed castles, forgotten temples - Archeological Conference, Szeged, Friday, September 27, 2019

D. Oikonomou, N. Papadopoulos, K. Simyrdanis, G. Cantoro, J. Beck, M. H. Loke, *Processing Strategies for 3-D Marine Dynamic Electrical Resistivity Tomography Data*. NEW GLOBAL PERSPECTIVES ON ARCHAEOLOGICAL PROSPECTION, 13TH INTERNATIONAL CONFERENCE ON ARCHAEOLOGICAL PROSPECTION 28 AUGUST - 1 SEPTEMBER 2019 SLIGO – IRELAND, Edited by James Bonsall, ISBN 978-1-78969-307-2 (e-Pdf), pg. 317-321

N. Papadopoulos, **D. Oikonomou**, N. Argyriou, G. Kritikakis, C. L. Papakosta, *3-D Electrical Resistivity Tomography in an Urban Environment: the case of Shallalat Gardens, Alexandria, Egypt*, NEW GLOBAL PERSPECTIVES ON ARCHAEOLOGICAL PROSPECTION, 13TH INTERNATIONAL CONFERENCE ON ARCHAEOLOGICAL PROSPECTION 28 AUGUST - 1 SEPTEMBER 2019 SLIGO – IRELAND, Edited by James Bonsall, ISBN 978-1-78969-307-2 (e-Pdf), pg. 173-176.

Papadopoulos, N., **Oikonomou, D.**, Cantoro, G., Andronikidis, N., Sarris, A., (2019). *3-D Resistivity Imaging of Rock-Cut Chamber Tombs: the case of the Mycenaean Cemetery in Prosilio, Greece*. NEW GLOBAL PERSPECTIVES ON ARCHAEOLOGICAL PROSPECTION, 13TH INTERNATIONAL CONFERENCE ON ARCHAEOLOGICAL PROSPECTION 28 AUGUST - 1 SEPTEMBER 2019 SLIGO – IRELAND, Edited by James Bonsall, ISBN 978-1-78969-307-2 (e-Pdf), pg. 62-65.

G. Strapazzon, **D. Oikonomou**, E. Alevizos, K. Simyrdanis, M. Küçükdemirci, A. Sarris, *Archaeological guidelines for geophysical survey in the urban environment*, NEW GLOBAL PERSPECTIVES ON ARCHAEOLOGICAL PROSPECTION, 13TH INTERNATIONAL CONFERENCE ON ARCHAEOLOGICAL PROSPECTION 28 AUGUST - 1 SEPTEMBER 2019 SLIGO – IRELAND, Edited by James Bonsall, ISBN 978-1-78969-307-2 (e-Pdf), pg. 353-354

Nikos Papadopoulos, Kleanthis Simyrdanis, Gianluca Cantoro and **Dimitris Oikonomou**, *Archaeological prospection on the transition zones: examples from shallow submerged sites in eastern mediterranean*, Annual meeting 2019 of DEGUWA, Contact Zones: Archaeology between Water and Land Coasts, lake and river shores, Bodrum 10-14 April 2019.

Gianluca Cantoro, Nikos Papadopoulos, Kleanthis Simyrdanis, **Dimitris Oikonomou**, *Rapid archaeological mapping in shallow water contexts: the contribution of low-end equipment and photogrammetry*.

Annual meeting 2019 of DEGUWA, Contact Zones: Archaeology between Water and Land Coasts, lake and river

shores, Bodrum 10-14 April 2019.

Sarris, A., Chliaoutakis A., Argyriou L., Argyriou A., Papadopoulos G.N., Cantoro G., Manataki M., Papadopoulos S.N., **Oikonomou D.**, Tzigounaki A., Giapitsoglou K., Kontogianni V., Antonaki P., Karamaliki E., Zouzoula E., Alertas N., Technological approaches for monitoring the integrity of Historical Monuments: Medieval Towns as a study case, INTERNATIONAL CONFERENCE ON «CUTTING-EDGE TECHNOLOGIES IN ANCIENT GREECE II: THE DODECANESE ISLANDS UNDER THE MICROSCOPE». University of the Aegean, Rhodes 11 – 13 January 2019.

M. Manataki, A. Sarris, **D. Oikonomou**, K. Simirdanis, G. Strapazzon, P. Trapero Fernández, *Contribution of GPR method in monitoring and evaluating the conservation state of Fortezza, Rethymno, Greece*, 17th International Conference on Ground Penetrating Radar (GPR), Rapperswil, Switzerland, June 18-21 2018, <https://doi.org/10.1109/ICGPR.2018.8441632>

M. Anthymidis, C. Papazachos, M. Ohrnberger, **D. Oikonomou**, A. Savvaidis, N. Theodoulidis, G. Vargemezis and P. Tsourlos, *Generating 3D Vs models in urban environments from ambient noise tomography and combined MASW/ERT investigations: The case of the city of Thessaloniki (Northern Greece)*, Proc. 16th European Conference On Earthquake Engineering (ECEE), Thessaloniki, Greece, 18-21 June 2018, Paper No 11347.

Sarris, A., Chliaoutakis, A., Argyriou, L., Argyriou, A., Papadopoulos, G. N., Cantoro, G., Manataki, M., Papadopoulos S. N., **D. Oikonomou**, A. Tzigounaki, K. Giapitsoglou, V. Kontogianni, B. Antonaki, P. Karamaliki, E. Zouzoula, N. Alertas. Innovative Strategies for the Protection and Conservation of the Cultural Fabric of the Historical Town of Rethymno, Crete. XVIII° UISPP World Congress in Paris (4-9 June 2018).

Sarris, A., Chliaoutakis, A., Argyriou, L., Argyriou, A., Papadopoulos, G. N., Cantoro, G., Manataki, M., Papadopoulos S. N., **D. Oikonomou**, Tzigounaki, A., Giapitsoglou, K., Antonaki, B., Karamaliki, N., Zouzoula, E., Kontogianni, V. (2018). Towards an Integrated Methodology for the Hazard Assessment and Monitoring of the Monuments of the Town of Rethymno, Crete, CAA 2018, Human History and Digital Future, Tubingen, 19-23 March 2018.

Book Chapters

Andrei Borissovitch Utkin (Ed.), Lemonia Argyriou, Vasco Bexiga, Francesca Boldrighini, Gianluca Cantoro, Paulo Chaves, Myronas Drygiannakis, Kostas Giapitsoglou, Giulia Governatori, Meropi Manataki, Stefano Marsella, Marcello Marzoli, **Dimitris Oikonomou**, Nikos G. Papadopoylos, Ulrich Santamaria, Apostolos Sarris, Anastasia Tzigounaki, Eren Uckan, Georgios Vlachakis, Robert James Williamson, Bülent Akbas, Ferit Cakir, (2019). Advanced sensing and information technologies for timely artefact diagnosis, Cultural Heritage Resilience Against Climate Change and Natural Hazards, Methodologies, Procedures, Technologies and Policy improvements achieved by Horizon 2020 - 700191 STORM project, Edited by Vanni Resta, Andrei B. Utkin, Filipa M. Neto, and Charalampos Z. Patrikakis, 89-142

Technical Reports

Indicative list:

Nikos Papadopoulos and Dimitris Oikonomou, Electrical Resistivity Tomography Geophysical Investigations in selected areas in Békéscsaba, Hungary, 2019. Institute for Mediterranean Studies - Foundation for Research & Technology (F.O.R.T.H.), Rethymno, Crete, July 26th, 2019.

Nikos Papadopoulos, Dimitris Oikonomou, Kleanthis Simyrdanis, Gianluca Cantoro. Underwater Geophysical Investigations at Lambayanna and Franchthi, Argolida, 2018. Institute for Mediterranean Studies - Foundation for Research & Technology (F.O.R.T.H.), Rethymno, Crete, March 29th, 2019.

Nikos Papadopoulos, Dimitris Oikonomou, Nasos Argyriou. Geophysical Investigations in the Shallalat Gardens, Alexandria, Egypt. Institute for Mediterranean Studies - Foundation for Research & Technology (F.O.R.T.H.), Rethymno, Crete, April 23rd, 2018

Nikos Papadopoulos, Dimitris Oikonomou, Gianluca Cantoro, Apostolos Sarris. Technical report for the geophysical investigation in the prehistoric cemetery of Prosilio, Boeotia Institute for Mediterranean Studies - Foundation for Research & Technology (F.O.R.T.H.), Rethymno, Crete, April 11th, 2018.

PARTICIPATION IN RESEARCH PROJECTS

- **Mapping the Early Farmers in Thrace (MAPFARM)**, funded by the Hellenic Foundation for Research and Innovation (H.F.R.I.), Principal Investigator Dushka Christina Urem Kotsou, Democritus University of Thrace.
- **Archaeological and Geophysical Research in the Peraia of Samothrace (for short Peraia of Samothrace Project – PSP)**, funded by the Hellenic Foundation for Research and Innovation (H.F.R.I.), Principal Investigator Avramidou Amalia, Democritus University of Thrace.

FIELDWORK EXPERIENCE

- Participation in more than 20 Geophysical Prospection Surveys for archaeological applications.

Indicative list:

1. **Elounda, Crete, Greece** (Methods: ERT, GPR, EM, Magnetics)
2. **Lasithi plateau, Crete, Greece** (Methods: ERT, GPR, Seismic Tomography)
3. **Chersonissos, Crete, Greece** (Methods: RM, GPR)
4. **Thrace, Greece** (Methods: ERT, GPR, EM, Magnetics)
5. **Békéscsaba, Hungary**, (ERT)
6. **Argolida, Greece** (ERT)
7. **Alexandria, Egypt**, (ERT)
8. **Prosilio, Boaetia**, (ERT)
9. **Kouklia, Cyprus** (ERT, GPR)

MEMBERSHIPS

2008-present: Geotechnical chamber of Greece

2019-present: International Society for Archaeological Prospection

GENERAL INFORMATION

Mother Language: Greek

Foreign Language: English (B2), Italian (Basic)