

PERSONAL INFORMATION	
SURNAME	FAKIRIS
NAME	ELIAS
DATE OF BIRTH	08.10.1981
PLACE OF RESIDENCE	PATRAS, ACHAIA, GREECE
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EDUCATION

- 02.2006 - 01.2012** **PhD:** Laboratory of Marine Geology and Physical Oceanography, Department of Geology, University of Patras, Greece, Supervisor: G. Papatheodorou, Title of Dissertation: "*Developing computational tools for the processing and analysis of marine geophysical data. Applications to Ionian Sea, Aegean Sea and Patraikos Gulf, Greece*".
- 10.2003 - 10.2005** **MSc:** Environmental Oceanography, Department of Geology, University of Patras, Greece, Supervisor: G. Ferentinos, Title of MSc Thesis: "*Study and mathematical modelling of hydrodynamics, water temperature and Salinity in Kotychi lagoon, Western Peloponnesus, Greece*". Degree: Honors
- 10.1999 - 10.2003** **BSc:** Geology, Department of Geology, University of Patras, Greece, Supervisor: I. Zacharias, Title of Dissertation: "*Study of the water circulation and pollution of Megara gulf using Mathematical Modelling and Remote Sensing techniques.*".

RESEARCH/WORKING EXPERIENCE

- 2005 - 2012** **Research Associate at the Laboratory of Marine Geology and Physical Oceanography (LMGPO), Department of Geology, University of Patras, Greece.**
- 2014 - 2020**
- Activities:** Marine geophysical data analysis, processing and interpretation, Habitat mapping and spatial analysis using GIS, statistical analysis of spatio-temporal oceanographic and environmental data-sets, Mathematical modelling of Hydrodynamics, wave energy and sediment transport, machine learning.
- Accomplishments:** Innovative data processing, geophysical and oceanographical proficiency, software development and computer-aided problem solving. **Field work:** participation in more than 50 marine surveys over 14 years, totaling >620 days of sea-time around the Mediterranean.
- 09.2012 - 12.2012** **Visiting Research Scientist at the Centre for Marine Research & Experimentation (CMRE, ex NATO Underwater Research Center), La Spezia, Italy.**
- 08.2013 - 11.2013**
- Two times invited as a visiting research scientist (3 months each). **Activities:** Implementation of acoustic sea-floor characterization techniques towards evaluating Automatic Target Recognition (ATR) performance in Synthetic Aperture Sonar (SAS) images, under the "Autonomous Naval Mine Countermeasures" project. **Accomplishments:** "Seafloor Acoustic Anisotropy and Complexity Assessment & Target to Background Interrelation towards ATR optimization" report published as a CMRE Scientific Report, 1 publication in SCI journal and 3 in international conferences. **Field work:** 6 weeks on-board NRV Alliance during two sea trials.

PUBLICATIONS IN SCI JOURNALS

- I. Zacharias , E. Fakiris, (2005). Application of Landsat imagery, to verify near shore water circulation of Saronikos gulf, as resulted from numerical modeling. *Appl. Num. Anal. Comp. Math.* 2, No. 2, 281 – 290.
- Papatheodorou, G., E., Fakiris, M., Geraga, G., Ferentinos, C., Koutsikopoulos (2008). Ghostly Images of the HMHS Britannic, the Titanic's ill fated, sunken sister ship. *Hydro International*, September 2008, Vol. 12, no. 7, pp. 15-18.
- G. Ferentinos, G. Papatheodorou, M. Geraga, M. Iatrou, E. Fakiris, D. Christodoulou, E. Dimitriou, Koutsikopoulos (2010). Fjord water circulation patterns and dysoxic/anoxic conditions in a Mediterranean semi-enclosed embayment in the Amvrakikos Gulf, Greece. *Estuarine, Coastal and Shelf Science* 88, 473-481.
- S. Kiparissis, E. Fakiris, G. Papatheodorou, M. Geraga, M. Kornaros, A. Kapareliotis, G. Ferentinos (2010). Illegal trawling and induced invasive algal spread as collaborative factors in a *Posidonia oceanica* meadow degradation. *Biological Invasions*, DOI 10.1007/s10530-010-9858-9.
- Papatheodorou G., Avramidis P., Fakiris E., Christodoulou D., Kontopoulos N., (2012). Bed diversity in the shallow water environment of Pappas lagoon in Greece. *International Journal of Sediment Research* 27 (2012) 1-17.
- Fakiris E., Papatheodorou G., (2012). Quantification of regions of interest in swath sonar backscatter images using grey-level and shape geometry descriptors: the TargAn software. *Mar Geophys Res* 33:169–183. DOI: 10.1007/s11001-012-9153-5.
- Fakiris, E., Rzhanov, Y, and Zoura, D. (2012). On importance of acoustic backscatter corrections for texture-based seafloor characterization. *11th European Conference on Underwater Acoustics 2012, ECUA 2012, Edinburgh, 2-6 July 2012*, 34(2):1362-1369.
- Papaefthymiou H, Athanasopoulos D, Papatheodorou G, Iatrou M, Geraga M, Christodoulou D, Kordella S, Fakiris E, Tsikouras B (2013). Uranium and other natural radionuclides in the sediments of a Mediterranean fjord-like embayment, Amvrakikos Gulf (Ionian Sea), Greece. *Journal of environmental radioactivity*, 122C:43-54. DOI:10.1016/j.jenvrad.2013.02.020
- Kordella S., Geraga M., Papatheodorou G., Fakiris E., I. Mitropoulou M. (2013). Litter composition and source contribution for 80 beaches in Greece, Eastern Mediterranean: A nationwide voluntary clean-up campaign. *Aquatic Ecosystem Health and Management*, 16(1):111-118. DOI:10.1080/14634988.2012.759503
- Williams D.P., Fakiris E., 2014. Exploiting Environmental Information for Improved Underwater Target Classification in Sonar Imagery. *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*, PP(99):1-14. DOI: 10.1109/TGRS.2013.2295843.
- Papatheodorou G, Geraga M., Christodoulou D., Iatrou M., Fakiris E., Heath S., Baika K. (2014). A marine geoarchaeological survey, cape Sounion, Greece: preliminary results, *Mediterranean Archaeology and Archaeometry*.14,1,357-371,2014
- Ferentinos G., Papatheodorou G., Geraga M., Christodoulou D., Fakiris E., Iatrou M. (2015). The Disappearance of Helike-Classical Greece—New Remote Sensing and Geological Evidence, *Remote Sensing*,7,2,1263-1278.
- Geraga M., Papatheodorou G., Ferentinos G., Fakiris E., Christodoulou D. (2015). The study of an ancient shipwreck using marine remote sensing techniques, in Kefalonia Island (Ionian Sea), Greece. *Archaeologia maritima mediterranea*,12,12,183-200,Fabrizio Serra.
- Zelilidis A., Papatheodorou G., Maravelis A.G., Christodoulou D., Tserolas P., Fakiris E., Dimas X., Georgiou N., Ferentinos G. Interplay of thrust, back-thrust, strike-slip and salt tectonics in a fold and thrust belt system: an example from Zakynthos Island, Greece. *International Journal of Earth Sciences*, pp.22, DOI: 10.1007/s00531-016-1299-y
- M. Geraga, G. Papatheodorou, C. Agouridis, H. Kaberi, M. Iatrou, D. Christodoulou, E. Fakiris, M. Prevenios, S. Kordella, G. Ferentinos, (2016) Palaeoenvironmental implications of a marine geoarchaeological survey conducted in the SW Argosaronic gulf, Greece, *Journal of Archaeological Science: Reports*, Available online 15 August 2016.

- Fakiris, E.; Papatheodorou, G; Geraga, M; Ferentinos, G; (2016). An Automatic Target Detection Algorithm for Swath Sonar Backscatter Imagery, Using Image Texture and Independent Component Analysis, *Remote Sensing*, 8(5), 373; doi:10.3390/rs8050373.
- Prevenios, M., Zeri, C., Tsangaris, C., Liubartseva, S., Fakiris, E., Papatheodorou, G., 2018. Beach litter dynamics on Mediterranean coasts: Distinguishing sources and pathways. *Marine Pollution Bulletin*. <https://doi.org/10.1016/j.marpolbul.2017.10.013> .
- Fakiris, E; Zoura, D; Ramfos, A; Spinou, E; Georgiou, N; Ferentinos, G; Papatheodorou, G; Object-based classification of sub-bottom profiling data for benthic habitat mapping. Comparison with sidescan and RoxAnn in a Greek shallow-water habitat, *Estuarine, Coastal and Shelf Science*, 208: 219-234, 2018.
- Nikolakopoulos, K; Lampropoulou, P; Fakiris, E; Sardelianos, D; Papatheodorou, G. Synergistic Use of UAV and USV Data and Petrographic Analyses for the Investigation of Beachrock Formations: A Case Study from Syros Island, Aegean Sea, Greece. *Minerals*, 8(11), 534, 2018.
- Fakiris, E; Blondel, Ph; Papatheodorou, G; Christodoulou, D; Dimas, X; Georgiou, N; Kordella, S; Dimitriadis, Ch; Rzhannov, Y; Geraga, M. Multi-Frequency, Multi-Sonar Mapping of Shallow Habitats— Efficacy and Management Implications in the National Marine Park of Zakynthos, Greece. *Remote Sensing*, 11(4), 461, 2019.
- Gournia, C.; Fakiris, E.; Geraga, M.; Williams, D.P.; Papatheodorou, G. Automatic Detection of Trawl-Marks in Sidescan Sonar Images through Spatial Domain Filtering, Employing Haar-Like Features and Morphological Operations, *Geosciences*, vol. 9, no. 5, p. 214, 2019.
- Papachristopoulou I., Filippides A., Fakiris E. Papatheodorou G. Vessel-based photographic assessment of beach litter in remote coasts. A wide scale application in Saronikos Gulf, Greece. *Marine pollution bulletin*. Accepted for publication, 2019.
- Nikolakopoulos, K.G., Konstantinopoulos, D., Depountis, N., Kavoura, K., Sabatakakis, N., Fakiris, E., Christodoulou, D., Papatheodorou, G., 2019. Coastal monitoring activities in the frame of TRITON project. <https://doi.org/10.1117/12.2532766>
- Ferentinos G., Fakiris E., Christodoulou D., Geraga M., Dimas X., Georgiou N., Kordella S., Papatheodorou G., Prevenios M., Sotiropoulos M. Optimal sidescan sonar and subbottom profiler surveying of ancient wrecks: the 'Fiskardo' wreck, Kefallinia Island, ionian sea. *Journal of Archeological Science*, Accepted for publication, 2019.
- Gkionis, P., Papatheodorou, G., Geraga, M., Fakiris, E., Christodoulou, D., Tranaka, K., 2020. A marine geoarchaeological investigation for the cultural anthesis and the sustainable growth of Methoni, Greece. *Journal of Cultural Heritage*. <https://doi.org/10.1016/j.culher.2019.08.009>
- Canals, M., Pham, C.K., Bergmann, M., Gutow, L., Hanke, G., van Sebille, E., Angiolillo, M., Buhl-Mortensen, L., Cau, A., Ioakeimidis, C., Kammann, U., Lundsten, L., Papatheodorou, G., Purser, A., Sanchez-Vidal, A., Schulz, M., Vinci, M., Chiba, S., Galgani, F., Langenkämper, D., Möller, T., Nattkemper, T.W., Ruiz, M., Suikkanen, S., Woodall, L., Fakiris, E., Molina Jack, M.E., Giorgetti, A., 2020. The quest for seafloor macrolitter: a critical review of background knowledge, current methods and future prospects. *Environmental Research Letters*. <https://doi.org/10.1088/1748-9326/abc6d4>
- Geraga, M., Christodoulou, D., Eleftherakis, D., Papatheodorou, G., Fakiris, E., Dimas, X., Georgiou, N., Kordella, S., Prevenios, M., Iatrou, M., Zoura, D., Kekebanou, S., Sotiropoulos, M., Ferentinos, G., 2020. Atlas of Shipwrecks in Inner Ionian Sea (Greece): A Remote Sensing Approach. *Heritage*. <https://doi.org/10.3390/heritage3040067>

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- E. Fakiris, I. Zacharias. (2004) «Application of Landsat imagery, to verify near shore water circulation of Saronikos gulf, as resulted from numerical modeling». International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), 10-14 September 2004, Chalkis, Greece.
- I.Zacharias, E.Fakiris,(2005) «Modeling and verification of Kotychi lagoon hydrodynamics». International Conference of Computational Methods in Sciences and Engineering (ICCMSE), 21-26 October 2005, Loutraki, Greece.
- Chalari A., Papatheodorou G., Fakiris E., (2006). A simple methodological scheme for sidescan sonar target classification. Case study: Alexandria, Egypt. 8th Greek Symposium on Oceanography & Fisheries, Thessalonica, Greece.
- Fakiris E., Papatheodorou G., Panagiotopoulos P. (2007): An innovative data mining procedure, using CLEAN algorithm and factor analysis, for irregularly sampled temporal environmental data sets. Bulletin of the Geological Society of Greece vol. XXXX, part 4. Proceedings of the 11th International Congress, Athens, May, 2007, p. 1947-1958.
- Fakiris E., Chalari A., Papatheodorou G. (2007): A convenient MATLAB graphical user interface for the analysis of analog sub-bottom profiles. In Proceedings of the 2nd International Conference & Exhibition on "Underwater Acoustic Measurements: Technologies & Results" Papadakis and Bjorno (eds), vol. I, p.p 239-246.
- Fakiris E., Papatheodorou G. (2007): Calibration of textural analysis parameters towards valid classification of sidescan sonar imagery. In Proceedings of the 2nd International Conference & Exhibition on "Underwater Acoustic Measurements: Technologies & Results" Papadakis and Bjorno (eds), vol. III, p.p 1253-1264.
- Papatheodorou, G., Ferentinos, G., Christodoulou, D., Fakiris, E., Georgopoulou, C. (2007) «Architecture and slide development of an earthquake induced subaerial / submarine landslide on Eliki fan delta, Gulf of Corinth, Greece». 3rd international symposium on Submarine Mass Movements and Their Consequences, Santorini.
- M.Patsourakis, E.Fakiris, G. Papatheodorou.(2007) Localisation and quantitative estimation of trawl-marks in the seabed: Application to the Gulf of Patras. 13th Greek Ichthyological Conference, Mitilene., Proceedings, 455-458
- E.Papadakis, E.Fakiris, G. Papatheodorou.(2007) Floor Vegetation Mapping in Kaiafas Lagoon (Peloponnesus, Greece) using Side-scan Sonar. 13th Greek Ichthyological Conference, Mitilene. Proceedings, 487-490
- Papatheodorou, G., Fakiris E., et. al., (2008). Mapping of Posidonia Oceanica meadows using side scan sonar and ground truthing techniques. 33rd International Geological Congress, Oslo, Norway.
- Chalari, A., Papatheodorou, G., Fakiris E., et.al. (2008). "TARGAN: A useful tool for Sidescan Sonar Target Classification. An archaeological application in the coastal zone of Alexandria [Egypt]". 10th International Symposium on Ship Construction in Antiquity.
- Fakiris E., Papatheodorou G. et.al., (2009). Mapping of P. Oceanica meadows using side-scan sonar and seafloor classification system (SonarClass): Case Studies of Laganas and Alikes bays (Zakinthos island, Greece), 9th Symposium on Oceanography & Fisheries, Proceedings, Volume I, 128-133.
- Papatheodorou G., Fakiris E., et.al. (2009). The battle of Lepanto search and survey mission (Greece), 1971-72, by Throckmorton, Edgerton and Yalouris: Following their traces 36 years later. 9th Symposium on Oceanography & Fisheries, Proceedings, Volume I, 134-139.
- Cristodoulou D., Papatheodorou G., Fakiris E. et. al. (2009), The activation of the Patras Gulf pockmarks field triggered by the June 8, 2008 earthquake. 9th Symposium on Oceanography & Fisheries, Proceedings, Volume I, 134-139.
- Fakiris, E., Papatheodorou G., (2009) Sonar Class: A MATLAB toolbox for the classification of side scan sonar imagery, using local textural and reverberational characteristics. In Proceedings of 3rd International Conference on Underwater acoustic measurements: Technologies & results (eds. Papadakis and Bjorno) Nafplion Greece, 21st-26th June 2009, vol. III, p. 1445-1450.

- D. Christodoulou, G. Papatheodorou, E. Fakiris, G. Etiope, G. Ferentinos G. (2009). The Activation of the Patras Gulf Pockmark Field, Western Greece, Triggered by the MW=6.4R June 8, 2008 Earthquake. 10th International Conference on Gas Geochemistry (ICG 10). September 14-21, 2009, Cluj-Napoca, Romania.
- P. Avramidis, E. Fakiris, G. Papatheodorou & N. Kontopoulos. Sediment transport pathways and acoustic floor classification of a coastal lagoon: Case study the Pappas lagoon NW Peloponnesus, Greece, 27 th IAS meeting of sedimentologists. 14-21 September 2009, Alghero, Italy.
- Papaefthymioy H., Athanasopoulos D., Papatheodorou G., Iatrou M., Geraga, M., Christodoulou D., Fakiris E, 2010. Distribution of natural radionuclides and ¹³⁷Cs in the sediments of a Mediterranean fjord-like embayment, Amvrakikos Gulf, Greece. Book of Abstracts of the 16th Radiochemical Conference, Marianske Lazne, Czech Republic, April 2010.
- Kordella, S., G. Papatheodorou, M. Geraga, E. Fakiris, A. Mitropoulou. (2010) Beach litter composition and source identification for 80 beaches in Greece. 39th CIESM Proceedings, Venice, Italy 10-14 May 2010, Rapp. Comm. Int. Mer. Medit 39, p. 764.
- Thomopoulos, K., Geraga, M., Fakiris, E., Papatheodorou, G., Ferentinos, G. (2010). Palaeoclimatic and Palaeoceanographic evolution of the Mediterranean Sea over the last 18ka. (Poster). 12th International Congress Of The Geological Society Of Greece. 19-22 May 2010.
- Fakiris E., Papatheodorou G. (2010). TargAn: A MATLAB toolbox for the parameterization of side scan sonar image targets, using regional gray-level statistics and shape descriptives. 10th European Conference on Underwater Acoustics (ECUA 2010), 5-9 July 2010, Istanbul, Turkey, Proceedings, Volume III, 1280-1287.
- Pakkanen J.1, Baika K., Geraga M., Evangelistis, D., Fakiris E., Heath S., Christodoulou D., Iatrou M., Papatheodorou G. (2010). Archaeological topographical survey and marine geophysical investigation at ancient and medieval harbour of Kyllini/Glarentza (NW Peloponnesus, Greece). XIX Congress of the Carpathian Balkan Geological Association. 23-26 September 2010, Thessaloniki, Greece.
- Fakiris E., Papatheodorou G. (2011). Automatic target detection in side-scan sonar imagery, using feature based acoustic classification and independent component analysis. Invited Speak In proceedings: 4th International Conference on Underwater acoustic measurements: Technologies & results (eds. Papadakis and Bjorno), 20-24 June 2011, Kos Isl., Greece.
- Papatheodorou G., Geraga M., Chalari A., Christodoulou D., Iatrou M., Fakiris E., Kordella St., Prevenios M., Ferentinos G. (2012) Remote sensing for underwater archaeology: case studies from Greece and Eastern Mediterranean Sea. Bulletin of the Geological Society of Greece vol. XLIV:100-115.
- Papatheodorou G., Ferentinos G., Geraga M., Christodoulou D., Fakiris E., Iatrou M., Kordella S., Tzanatos E., Koutsikopoulos C. Geohabitat mapping in the Aegean and Ionian seas, Mediterranean Sea: a pilot study for the sustainable management of the coastal resources. GEOHAB (Marine Geological and Biological Habitat Mapping) Symposium, Rome – Italy, 6-10 May 2013.
- Fakiris E., Williams D., Couillard M., Fox W. Sea-Floor Acoustic Anisotropy and Complexity Assessment Towards Prediction of ATR Performance, in Proc. International Conference on Underwater Acoustics (UAC), Corfu Isl., Greece, 23 - 28 June 2013.
- Williams D., Fakiris E. A new environmentally adaptive classification algorithm for underwater mines in SAS imagery, In Proc. International Conference on Underwater Acoustics (UAC), Corfu Isl., Greece, 23 - 28 June 2013.
- Dugelay S., Fakiris E., and Williams D. Global SAS image registration with acoustic anisotropy and complexity, In Proc. International Conference on Underwater Acoustics (UAC), Corfu Isl., Greece, 23 - 28 June 2013.
- Geraga M., Papatheodorou G., Agouridis C.S., Iatrou M., Prevenios M., Christodoulou D., Zoura D., Kordella S., Fakiris E. Marine geo-archaeological survey in southern Agosaronic gulf (greece) focused on the late bronze age shipwreck at Modi islet. Splashcos - Under The Sea: Archeology And Palaeolandscapes Conference, Poland, 23-27 Sep 2013.
- Fakiris E., Tzanatos E., Papatheodorou G., Koutsikopoulos C., Ferentinos G. An Assessment of Habitat Connectivity Among Coralligene Aggregations. 40th CIESM Congress, Marseille, France, 28 Oct - 1 Nov 2013.

- Fakiris E. (2015). Automatic Target Detection in Swath-Sonar Images, Using Texture Based Unsupervised Classification and Blind Source Deconvolution. 1st International Electronic Conference on Remote Sensing.
- Fakiris, E; Zoura, D; Papatheodorou, G; Ferentinos, G; (2016). "Automatic benthic habitat mapping in Lourdas gulf, Kefalonia, combining Side-scan Sonar and Sub-Bottom Profiler data." 11th Panhellenic Conference in Oceanography and Fishery research, Mytilini, Lesbos, Greece, 2016.
- Dimas, X; Fakiris, E; Christodoulou, D; Zoura, D; Papatheodorou, G; Paximadis, G; Geraga, M (2016). Mapping of high priority marine habitats in the coastal zone of Gyaros Isl. 11th Panhellenic Conference in Oceanography and Fishery research, Mytilini, Lesbos, Greece, 2016.
- Fakiris, E.; Dimas, X.; Georgiou, N.; Christodoulou, D.; Rzhonov, Y.; Papatheodorou, G. Integrating dual frequency side-scan sonar data and multibeam backscatter, angular response and bathymetry, for benthic habitat mapping in the Laganas Gulf MPA, Zakynthos Isl., Greece, The Journal of the Acoustical Society of America (ASA),141,5,3949-3949, 2017.
- Fakiris, E.; Christodoulou, D.; Georgiou, N.; Dimas, X.; Papatheodorou, G.; Pappas, H.; Blondel, Ph.; Pagoulatos, A.; Mikoniatis, G.; Zafiropoulos, G.; The Patraikos Gulf Ambient and Seismic Noise Monitoring Project. Ακουστική 2018, ΕΛΙΝΑ, Πάτρα, Οκτώβρης 2018, AK18_S3-5.
- Gournia C., Fakiris E., Geraga M., Williams D.P., Papatheodorou G. Environmentally adaptive automatic detection of linear seafloor features in sidescan sonar imagery: the case of trawl marks detection. In: International conference and exhibition on Underwater Acoustics (UACE), Crete, July 2019.
- Fakiris E., Christodoulou D., Georgiou N., Dimas X., Papatheodorou G., Blondel Ph., Mikoniatis G., Zafiropoulos G., Symeonidis F. The soundscape of the inner ionian archipelago as evinced through the west patraikos gulf ambient and seismic noise monitoring project. In: International conference and exhibition on Underwater Acoustics (UACE), Crete, July 2019.
- Fakiris E., Christodoulou D., Kordella S., Geraga M., Papatheodorou G. Benthic litter density maps through low-cost underwater towed video camera surveys. An integrated approach. 16th International Conference on Environmental Science and Technology (CEST2019), 4-7 September 2019, Rhodes, Greece

FELLOWSHIPS and AWARDS

- 2006 - 2010** State Scholarship Foundation of Greece scholarship for Doctorate thesis (awarded after examinations)
- 2020-2022** State Scholarship Foundation of Greece scholarship for Post Doctorate research

REVIEWING ACTIVITIES IN SCI JOURNALS

- 2003 - 2019** Reviewer in more than 23 articles in the following journals: **Marine Geophysical Research** (IF: 1.286), **Remote Sensing** (MDPI) (IF: 4.2), **Sensors** (MDPI) (IF: 2.677). **Earth and Space Science** (AGU Publications) (IF: 3.22).

TEACHING ACTIVITIES

- 2016 - 2019** Academic scholar in the undergraduate courses "Operational Oceanography" and "Underwater remote sensing" of the Geology department, University of Patras, Greece.
- 2017 - 2019** Laboratory assistant at the course: "Marine Geology and application in marine engineering". MSc program: "Environmental Oceanography", Geology Dpt., University of Patras, Greece.
- 2020** Appointed Assistant Professor on a 6 months contract for the undergraduate course "Operational Oceanography" of the Geology department, University of Patras, Greece.

RESEARCH GRANTS

Project Title	Funding source	Period	Role
MELTEMI	EU INTERREG Balkan-Med	2018-2020	Researcher
TRITON	EU INTERREG V-A Greece-Italy	2018-2020	Researcher
LIFE DEBAG	EU LIFE	2015-2018	Researcher
Mapping Posidonia beds in the Greek territory waters through marine acoustics and earth observation	Ministry of Rural Development and Food	2015-2016	Researcher
Identification, consequences and management of the anoxic zone of Amvrakikos.	EAA FM 2009-2014	2015-2017	Researcher
SASMAP: Development of tools and techniques to Survey, ... And Preserve underwater archaeological sites	EU FP7	2010-2012	Researcher
HYPOX ENV.2008.4.1.2.1	EU FP7	2009-2012	Researcher
Habitat mapping in Zante Island (Gulf of Laganas)	EU Interreg III A, Greece-Italy, GOW	2007-2008	Researcher
Beachmed-E	Intereg IIIC	2007	Researcher
Conservation management in Strofylia - Kotychi	LIFE2002NAT/GR/8491	2005-2006	Researcher

SCIENTIFIC/ PROFESSIONAL ACHIEVEMENTS

E. Fakiris has multidisciplinary scientific experience, initiated from research topics that range from remote sensing, passive and active acoustics, habitat mapping, geophysics, expert data assimilation, machine learning and hydrodynamical modelling. As a member of LMGPO he has participated in more than 33 research programs, 11 of which of EU grants. He has authored 26 articles in SCI journals (in 7 as the first author) and 39 in conferences (in 15 as the first author). His work has received 532 citation and his h-index is 14 (source: google-scholar, 9 December 2020).

He has the proven ability to problem solve, tested with continuous problem-solving exercises given as assessments, which may require mathematical analysis, evaluation and programming of specialized computational tools. He has implemented unique computational tools to analyze sonar and video images, classify regions of interest and detect manmade targets. Mathematically challenging, most of the underlying operations are packaged as individual software presented in several publications and conference communications. These tools have been used for seabed mapping in more than four research institutions around the world, such as the Rutgers Unv, USA; the Unv of Santa Catarina (Brazil); the Unv of New Hampshire, CCOM, USA; and the Bath Unv, UK.

His working experience in multinational environments such as in CMRE and in EU research programs, along with various independent collaborations with researchers from around the world, he has also greatly enhanced his communication skills. All of Elias work experiences have involved working within a team-based culture. This included planning, organisation and commitment. He has successfully undertaken/directed various team projects within both academic and non-academic environments, which led to significantly contributing numerous technical reports and proposal submissions.