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Employment History

- 2011 – 2016 ■ **Research Assistant.** February 1st 2011 to December 31st 2016: Laboratory of Physical and Chemical Oceanography (LPCHO), Department of Marine Sciences, University of the Aegean, Mytilene, Greece.
- 2017 ■ **Scientific Technical Officer (STO).** February 1st to November 30th: Ocean Climate and Information Services (OCIS) section, [Marine Institute](#), Galway, Ireland.
- 2018 ■ **Research Assistant.** February 1st to December 31st 2018: Laboratory of Physical and Chemical Oceanography (LPCHO), Department of Marine Sciences, University of the Aegean, Mytilene, Greece.
- 2019 – 2022 ■ **Research Associate.** February 15th 2019 to February 28th 2022: Operational Oceanography Group ([POSEIDON System](#)), Institute of Oceanography, Hellenic Centre for Marine Research, Anassissos, Greece.
- 2022 – 2026 ■ **Research Associate and Adjunct Lecturer.** March 1st 2022 to Feb 20th 2026: Department of Marine Sciences & LPCHO, University of the Aegean, Mytilene, Greece.
- 2026 – present day ■ **Assistant Professor.** July 8th 2026: Department of Environment, Ionian University, Zakynthos, Greece.

Teaching Experience

- 2021 – 2022 & 2023 – 2024 ■ **Vector Calculus.** Spring Semester, compulsory undergraduate course. Department of Marine Sciences, University of the Aegean, Mytilene, Greece.
- 2022 – 2023 & 2024 – 2025 ■ **Calculus.** Fall Semester, compulsory undergraduate course. Department of Marine Sciences, University of the Aegean, Mytilene, Greece.
- 2022 – 2023 ■ **Differential Equations.** Spring Semester, optional undergraduate course. Department of Marine Sciences, University of the Aegean, Mytilene, Greece.
- 2022 – 2023 & 2023 – 2024 ■ **Oceanography of the Mediterranean.** Spring Semester, optional advance undergraduate course. Department of Marine Sciences, University of the Aegean, Mytilene, Greece.
- 2024 – 2025 & 2025 – 2026 ■ **Waves and mixing at sea: theory and applications.** Fall Semester, optional advance undergraduate course. Department of Marine Sciences, University of the Aegean, Mytilene, Greece.

Education

- 2022 ■ **Ph.D., University of the Aegean, Mytilene, Greece** in Physical Oceanography.
Thesis title: *Investigating the impact of Internal Waves (IW) in the vertical mixing processes of North Aegean deep Basins using ROMS ocean Model.* [[link](#)]

Education (continued)

- 2010  **M.Sc., University of the Aegean, Samos, Greece** in Applied Mathematics.
Thesis title: *Analytical solutions using perturbation methods for the problem a Laminar axisymmetric flow of a weakly compressible viscoelastic fluid.*[\[link\]](#)
- 2008  **B.Sc., University of the Aegean, Mytilene, Greece** in Marine Sciences.
Thesis title: *Investigating the impact of Dardanelles flow at the thermohaline functioning of the Aegean Sea.*[\[link\]](#)

Scientific Interests

-  Ocean numerical simulations – coastal and region/basin scale.
-  Data Assimilation Methods.
-  Operational Forecasting using hydrodynamic and wave models – coupled & uncoupled ([Central & North Aegean Sea Forecasts](#)).
-  Internal Waves and mixing processes.
-  Big data analysis (observational & reanalysis datasets).

Experience in High Performance Computing Systems

-  Use of ARIS supercomputer infrastructure (<https://hpc.grnet.gr>) for research projects PALIROIA (4/12/2015 - 23/04/2016), TWIK (1/12/2017 – 31/12/2018) FORAS 1 & 2 (2020 – 2021), IMVANA (2022 – 2023) allocating up to 1000 cores for scaling, benchmarking and run simulations using ROMS ocean model.
-  Administrator and user of Lab of Physical and Chemical Oceanography (LPCHO) computing cluster, OCIS HPC systems (Prometheus, Ganymede, Europa) and POSEIDON system HPC facilities (Nep-tune 1 & 2, Avyssos 2, Pegasus).

Participation in Research Projects

- 2007  **SESAME: Southern European Seas: Assessing and Modelling Ecosystem changes**, funded by the 6th FP (6.3: Climate Change and Ecosystems) January 1st to October 31st 2007.
- 2011 – 2013  **TOSCA: Tracking Oil Spills and Coastal Awareness Network**, grant number 2G-MEDo9-425, co-financed by the European Regional Development Fund in the framework of the MED programme. March 1st 2011 to March 31st 2013.
- 2012 – 2013  **CCSEAWAVS: Estimating the effects of Climate Change on SEA level and WAve cli-mate of the Greek seas, coastal Vulnerability and Safety of coastal and marine structures**, co-financed by the Hellenic Republic and the European Union via the Operational Pro-gram “Education and Lifelong Learning” of the National Strategic Reference Framework (NSRF) Research Funding Program: THALES
- 2012 – 2015  **PERSEUS: Policy-oriented marine Environmental Research for the Southern EUropean Seas** funded by the EU under FP7 Theme "Oceans of Tomorrow" OCEAN.2011-3, Grant Agreement No. 287600. August 21st 2012 to September 30th 2015.
- 2015  **AegeanMarTech: Technological and oceanographic cooperation Network for the Study of mechanisms fertilizing the North-East Aegean Sea**, co-financed by the Hellenic Repub-lic and the European Union via the Operational Program “Education and Lifelong Learn-ing” of the National Strategic Reference Framework (NSRF) Research Funding Program: THALES, grant number 383548. 06/03/2013 – 31/05/2015.

Participation in Research Projects (continued)

- 2017 ■ **TAPAS: Tools for Assessment and Planning of Aquaculture Sustainability**, Project funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 678396. February 1st to November 30th.
- 2018 ■ **Model Kalloni**: Model Oceanographic System for the monitoring of Kalloni Gulf, co-financed by Greece and the European Union (European Social Fund- ESF) through the Operational Programme «Human Resources Development, Education and Lifelong Learning 2014-2020» in the context of the project (MIS 5004239, grant 2997 (34)). January 1st to December 31st.
- 2019 – 2021 ■ **HIMIOFoTS: Hellenic Integrated Marine Inland water Observing Forecasting and offshore Technology System**, implemented in the framework of Operational Programme Competitiveness, Entrepreneurship and Innovation 2014–2020 (EPAnEK) (MIS 5002739), cofunded by the European Union through the European Regional Development Fund and the Hellenic State through ESPA 2014–2020. February 2nd 2019 to October 31st 2021.
- 2021 – 2022 ■ **CMEMS MED MFC2**: Copernicus Marine Service. Med-Waves Operational Group. November 1st 2021 to February 28th 2022.
- 2022 – 2023 ■ **EMERGE: Evaluation, control and Mitigation of the EnviRonmental impacts of ship-pinG Emissions**, Euroean Union's Horizon 2020 Research and Innovation Program under Grant Agreement No 874990, September 1st 2022 to December 31st 2023.
- 2024 – 2025 ■ **MarinePlan**: Improved transdisciplinary science for effective ecosystem-based maritime spatial planning and conservation in European Seas, funded by European Union's Horizon Europe research and innovation programme HORIZON-CL6-2021 BIODIV-01-12, grant agreement No 101059407, March 1st 2024 to December 31st 2024 and April 4th to May 5th 2025.

Research Publications

Journal Articles

- 1 **Mamoutos, I.**, Androulidakis, Y., Potiris, E. I., Kolovoyiannis, V., Tragou, E., Zervakis, V., & Krestenitis, Y. N. (2026). Is the exchange between the black sea and the mediterranean changing over time? *Environmental Research Communications*. <https://doi.org/10.1088/2515-7620/ae4681>
- 2 **Mamoutos, I.**, Potiris, M., Tragou, E., & Zervakis, V. (2026). The role of tidal residual currents in the north aegean sea. *Deep Sea Research Part I: Oceanographic Research Papers*. <https://doi.org/10.1016/j.dsr.2026.104685>
- 3 Kolovoyiannis, V., Mazioti, A. A., Potiris, M., **Mamoutos, I.**, Majamäki, E., Hänninen, R., Krasakopoulou, E., Tragou, E., Zervakis, V., Sofiev, M., Fridell, E., Kukkonen, J., & Jalkanen, J.-P. (2025). Modelling the impact of present and future maritime transport on marine pollution at an environmentally sensitive coastal ecosystem (saronikos gulf, eastern mediterranean). *Marine Pollution Bulletin*, 219, 118335. <https://doi.org/10.1016/j.marpolbul.2025.118335>
- 4 Nagkoulis, N., Adam, C., **Mamoutos, I.**, Katsanevakis, S., & Mazaris, A. D. (2025). An ecological connectivity dataset for black sea obtained from sea currents. *Data in Brief*, 58, 111268. <https://doi.org/10.1016/j.dib.2024.111268>
- 5 **Mamoutos, I.**, Potiris, E., Androulidakis, Y., Tragou, E., & Zervakis, V. (2024). Evidence for reduced black sea water outflow to the north aegean [e2024EA003674 2024EA003674]. *Earth and Space Science*, 11(6), e2024EA003674. <https://doi.org/10.1029/2024EA003674>
- 6 Potiris, M., **Mamoutos, I.**, Tragou, E., Zervakis, V., Kassis, D., & Ballas, D. (2024a). Dense water formation in the north–central aegean sea during winter 2021–2022. *Journal of Marine Science and Engineering*, 12(2). <https://doi.org/10.3390/jmse12020221>

- 7 Potiris, M., **Mamoutos, I.**, Tragou, E., Zervakis, V., Kassis, D., & Ballas, D. (2024b). Dense water formation variability in the aegean sea from 1947 to 2023. *Oceans*, 5(3), 611–636. <https://doi.org/10.3390/oceans5030035>
- 8 Nagy, H., **Mamoutos, I.**, Nolan, G., Wilkes, R., & Dabrowski, T. (2023). High-resolution model of clew bay—model set-up and validation results. *Journal of Marine Science and Engineering*, 11(2). <https://doi.org/10.3390/jmse11020362>
- 9 Papadakis, O., **Mamoutos, I.**, Ramfos, A., Catanese, G., Papadimitriou, E., Theodorou A., J., Batargias, C., Papaioannou, C., Kamilari, M., Tragou, E., Zervakis, V., & Katsanevakis, S. (2023). Status, distribution, and threats of the last surviving fan mussel populations in greece. *Mediterranean Marine Science*, 24(3), 679–708. <https://doi.org/10.12681/mms.35384>
- 10 Bourma, E., Perivoliotis, L., Petihakis, G., Korres, G., Frangoulis, C., Ballas, D., Zervakis, V., Tragou, E., Katsafados, P., Spyrou, C., Dassenakis, M., Poulos, S., Megalofonou, P., Sofianos, S., Paramana, T., Katsaounis, G., Karditsa, A., Petrakis, S., Mavropoulou, A.-M., ... Zissis, N. (2022). The hellenic marine observing, forecasting and technology system—an integrated infrastructure for marine research. *Journal of Marine Science and Engineering*, 10(3). <https://doi.org/10.3390/jmse10030329>
- 11 Petalas, S., Tragou, E., **Mamoutos, I.**, & Zervakis, V. (2022). Simulating the interconnected eastern mediterranean–black sea system on climatic timescales: A 30-year realistic hindcast. *Journal of Marine Science and Engineering*, 10(11). <https://doi.org/10.3390/jmse1011786>
- 12 **Mamoutos, I.**, Potiris, E., Tragou, E., Zervakis, V., & Petalas, S. (2021). A high-resolution numerical model of the north aegean sea aimed at climatological studies. *Journal of Marine Science and Engineering*, 9(12). <https://doi.org/10.3390/jmse9121463>
- 13 Sampatakaki, A., Zervakis, V., **Mamoutos, I.**, Tragou, E., Gogou, A., Triantaphyllou, M., & Skliris, N. (2021). Investigation of the inherent variability of the mediterranean sea under contrasting extreme climatic conditions. *Frontiers in Marine Science*, Volume 8 - 2021. <https://doi.org/10.3389/fmars.2021.656737>
- 14 Petalas, S., **Mamoutos, I.**, Dimitrakopoulos, A.-A., Sampatakaki, A., & Zervakis, V. (2020). Developing a pilot operational oceanography system for an enclosed basin. *Journal of Marine Science and Engineering*, 8(5). <https://doi.org/10.3390/jmse8050336>
- 15 Kokkini, Z., Zervakis, V., **Mamoutos, I.**, Potiris, E., Frangoulis, C., Kioroglou, S., Maderich, V., & Psarra, S. (2017). Quantification of the surface mixed-layer lateral transports via the use of a hf radar: Application in the north-east aegean sea [Investigating fertilizing mechanisms and ecosystem functioning in an E. Mediterranean productivity "hotspot": The case of the oligotrophic NE Aegean Sea]. *Continental Shelf Research*, 149, 17–31. <https://doi.org/10.1016/j.csr.2017.04.006>
- 16 **Mamoutos, I.**, Zervakis, V., Tragou, E., Karydis, M., Frangoulis, C., Kolovoyiannis, V., Georgopoulos, D., & Psarra, S. (2017). The role of wind-forced coastal upwelling on the thermohaline functioning of the north aegean sea [Investigating fertilizing mechanisms and ecosystem functioning in an E. Mediterranean productivity "hotspot": The case of the oligotrophic NE Aegean Sea]. *Continental Shelf Research*, 149, 52–68. <https://doi.org/10.1016/j.csr.2017.05.009>
- 17 Bellomo, L., Griffa, A., Cosoli, S., Falco, P., Gerin, R., Iermano, I., Kalampokis, A., Kokkini, Z., Lana, A., Magaldi, M., **Mamoutos, I.**, Mantovani, C., Marmain, J., Potiris, E., Sayol, J., Barbin, Y., Berta, M., Borghini, M., Bussani, A., ... Zervakis, V. (2015). Toward an integrated hf radar network in the mediterranean sea to improve search and rescue and oil spill response: The toscia project experience. *Journal of Operational Oceanography*, 8(2), 95–107. <https://doi.org/10.1080/1755876X.2015.1087184>
- 18 Housiadas, K. D., Georgiou, G. C., & **Mamoutos, I.** (2012). Laminar axisymmetric flow of a weakly compressible viscoelastic fluid. *Rheologica Acta*, 51(6), 511–526. <https://doi.org/10.1007/s00397-011-0610-x>

Books and Chapters

- 1 Tragou, E., Petalas, S., & **Mamoutos, I.** (2024). *Air–sea interaction: Heat and fresh-water fluxes in the aegean sea* (C. L. Anagnostou, A. G. Kostianoy, I. D. Mariolakas, P. Panayotidis, M. Soilemezidou, & G. Tsaltas, Eds.). Springer International Publishing. https://doi.org/10.1007/698_2021_841

Conference Proceedings

- 1 **Mamoutos, I.**, Mosiou, K., Potiris, E., Kolovoyiannis, V., Androulidakis, Y., Tragou, E., & Zervakis, V. A high resolution forecasting system for central north aegean sea (cnag-fs): System description, validation and current development. In: In 8th euro-argo science meeting, crete, greece, 23 - 25 september 2025. 2025. https://www.euro-argo.eu/content/download/179687/file/BOOK_OF_ABSTRACTS.pdf
- 2 Kolovoyiannis, V., Androulidakis, Y., **Mamoutos, I.**, Mosiou, K., Zervakis, V., Tragou, E., & Chatzilaou, C. Operational system for ocean forecasts over three main gulfs of the n. aegean sea: Aegis. In: In 5th hydromedit international congress on applied ichthyology, oceanography & aquatic environment, mytilene, greece, 30 may – 2 june. 2024. https://hydromedit.gr/proceedings/#hydromedit2024_proceedings_book-2/1/
- 3 **Mamoutos, I.**, Mosiou, K., Potiris, E., Kolovoyiannis, V., Androulidakis, Y., Chatzilaou, C., Zervakis, V., & Tragou, E. Cnag-fs: A high resolution forecasting system for the central north aegean – system description and validation. In: In 5th hydromedit international congress on applied ichthyology, oceanography & aquatic environment, mytilene, greece, 30 may – 2 june. 2024. https://hydromedit.gr/proceedings/#hydromedit2024_proceedings_book-2/1/
- 4 Marsh, R., Skliris, N., Zervakis, V., **Mamoutos, I.**, Tragou, E., Potiris, M., & Dey, D. Combined euleurian and lagrangian respectives on water mass tranformation in the aegean sea - of consequence for the wider east mediterranean. In: In 5th hydromedit international congress on applied ichthyology, oceanography & aquatic environment, mytilene, greece, 30 may – 2 june. 2024. https://hydromedit.gr/proceedings/#hydromedit2024_proceedings_book-2/1/
- 5 Zervakis, V., **Mamoutos, I.**, & Tragou, E. Operational system for ocean forecasts over three main gulfs of the n. aegean sea: Aegis. In: In 5th hydromedit international congress on applied ichthyology, oceanography & aquatic environment, mytilene, greece, 30 may – 2 june. 2024. https://hydromedit.gr/proceedings/#hydromedit2024_proceedings_book-2/1/
- 6 Kolovoyiannis, V., Mazioti, A. A., Krasakopoulou, E., Zervakis, V., Tragou, E. A., **Mamoutos, I.**, Potiris, E., Petalas, S., Chatzilaou, C., Mosiou, K., Kontoyiannis, H., Paraskevopoulou, V., & Athiniotis, A. Implementation of a modelling system for the investigation of the saronikos gulf marine ecosystem (eastern mediterranean). In: In Egu general assembly, vienna, austria, 24–28 april. 2023. <https://meetingorganizer.copernicus.org/EGU23/EGU23-12514.html>
- 7 Kolovoyiannis, V., Petalas, S., **Mamoutos, I.**, Krasakopoulou, E., Zervakis, V., Tragou, E., & Kontoyiannis, H. Optimizing the parameterization of a high resolution numerical simulation of the saronikos gulf hydrodynamics. In: In 2nd international conference on design and management of harbor coastal and offshore works, thessaloniki, greece, may 24-27. 2023. https://dmpco.eu/files/DMPCO2023_Proceedings_Vol_I.pdf
- 8 **Mamoutos, I.**, Zervakis, V., & Tragou, E. Investigating the impact of tides in the north aegean on the deep water formation events (dwfe) during eastern mediterranean transient (emt). In: In Egu general assembly, vienna, austria, 24–28 april. 2023. <https://doi.org/10.5194/egusphere-egu23-8252>
- 9 Mazioti, A. A., Kolovoyiannis, V., Petalas, S., **Mamoutos, I.**, Potiris, E., Krasakopoulou, E., Tragou, E. A., & Zervakis, V. Simulating the fate of selected pahs in saronikos gulf, eastern mediterranean, using a far-field water quality model. In: In 18th international conference on environmental science and technology athens, greece, 30 august to 2 september. 2023. <https://tinyurl.com/3sz5yrj6>
- 10 Mosiou, K., **Mamoutos, I.**, Zervakis, V., Tragou, E., & Krasakopoulou, E. Assessing the wind wave climate at several scales in the offshore and coastal zones. In: In 2nd international conference on design and

management of harbor coastal and offshore works, thessaloniki, greece, may 24-27. 2023. https://dmpco.eu/files/DMPCO2023_Proceedings_Vol_I.pdf

- 11 Petalas, S., Tragou, E., **Mamoutos, I.**, & Zervakis, V. On the role of black sea waters in controlling the north aegean buoyancy fluxes. In: In *Egu general assembly, vienna, austria, 24-28 april. 2023.* <https://meetingorganizer.copernicus.org/EGU23/EGU23-15973.html>
- 12 Potiris, M., **Mamoutos, I.**, Zervakis, V., Tragou, E., Kassis, D., & Ballas, D. Record-high salinity and interannual dense water formation variability in the aegean sea coincide with reduced inflow of black sea water. In: In *Egu general assembly, vienna, austria, 24-28 april. 2023.* <https://meetingorganizer.copernicus.org/EGU23/EGU23-13363.html>
- 13 Vatitsis, S., **Mamoutos, I.**, Zervakis, V., Tragou, E., & Velegrakis, A. On using submarine cables to monitor water transport: The case of intensely baroclinic oceanic flows. In: In *2nd international conference on design and management of harbor coastal and offshore works, thessaloniki, greece, may 24-27. 2023.* https://dmpco.eu/files/DMPCO2023_Proceedings_Vol_I.pdf
- 14 Zervakis, V., Krasakopoulou, E., Tragou, E., Kolovoyiannis, V., **Mamoutos, I.**, Potiris, M., Androulidakis, I., Mosiou, K., Kalatzi, M. I., Mazioti, A. A., Chatzilaou, C., Kougioumtzoglou, R. F., & Petalas, S. Development of a coastal oceanographic observatory for the north aegean sea: The aegis projects. In: In *Egu general assembly, vienna, austria, 24-28 april. 2023.* <https://meetingorganizer.copernicus.org/EGU23/EGU23-13065.html>
- 15 Nagy, H., Lyons, K., McGovern, J., Pereiro, D., **Mamoutos, I.**, Nolan, G., & Dabrowski, T. Recent progress in downscaled local ocean forecast models for irish maritime users. In: In *9th eurogoos international conference, 3-5 may. 2021.* <https://hal.science/hal-03328372/>
- 16 Petalas, S., Dimitrakopoulos, A.-A., **Mamoutos, I.**, Sampatakaki, A., & Zervakis, V. Prototype oceanographic monitoring system development for the kalloni bay, lesvos, greece. In: In *Cheers 2019, global changes in estuarine and coastal systems functioning: Innovative approaches and assessment tools, bordeaux, france. 2019.* <https://tinyurl.com/mr37knu6>
- 17 Petalas, S., **Mamoutos, I.**, Elina, T., & Zervakis, V. A 30-year hindcast of the interconnected eastern mediterranean – black sea system: A first step towards climate projections for the aegean sea. In: In *Egu general assembly, april 2019, vienna, austria. 2019.* <https://meetingorganizer.copernicus.org/EGU2019/EGU2019-13821.pdf>
- 18 Sampatakaki, A., Zervakis, V., **Mamoutos, I.**, & Tragou, E. Internal variability of the mediterranean sea under different climate conditions. In: In *Egu general assembly, april 2019 vienna, austria. 2019.* <https://meetingorganizer.copernicus.org/EGU2019/EGU2019-12608.pdf>
- 19 **Mamoutos, I.**, Petalas, S., Sampatakaki, A., Dimitrakopoulos, A.-A., & Zervakis, V. A high resolution hydrodynamic simulation of lesvos semi-enclosed embayment kalloni gulf: Preliminary results. In: In *Hydromedit 2018 - 3rd international congress on applied ichthyology and aquatic environment volos - greece. 2018.* <https://tinyurl.com/422a9c9m>
- 20 **Mamoutos, I.**, Dabrowski, T., Lyons, K., & McCoy, G. A two way nested high resolution coastal simulation in a tidally dominated area: Preliminary results. In: In *8th eurogoos conferencer, bergen, 3-5 october. 2017.* <https://tinyurl.com/4d2hpjsy>
- 21 **Mamoutos, I.**, Zervakis, V., & Tragou, E. Assessing different turbulence close schemes in the north aegean: Preliminary results. In: In *Egu general assembly conference abstracts, april. 2015, 7401.* <https://meetingorganizer.copernicus.org/EGU2015/EGU2015-7401.pdf>
- 22 **Mamoutos, I.**, Zervakis, V., Tragou, E., Kokkini, Z., & Potiris, E. Improving the monitoring and simulations of the black sea influence on the aegean. In: In *Perseus final scientific conference, brussels, december. 2015.* <http://dx.doi.org/10.13140/RG.2.1.2408.8087>

- 23 **Mamoutos, Y.**, Zervakis, V., & Tragou, E. Long term simulations of the north aegean deep-waters' interannual variability. In: In *Proceedings 11th panhel. symp. oceanogr. & fish, may*. 2015, 805–808. <https://tinyurl.com/4c42w4es>
- 24 **Mamoutos, G.**, Tragou, E., & Kakagiannis, G. Mean sea level changes in the greek seas. In: In *6th panhellenic conference in management and improvement of coastal zones, athens, greece*. 335344. 2014.

Skills

Languages	Strong reading, writing and speaking skills in English. Native Greek speaker.
Coding	Fortran, MATLAB, Python, Mathematica, Bash, $\text{\LaTeX}$.
Numerical Models	ROMS, SWAN.
Operational Systems	Linux/UNIX, DOS, Windows.