

## **Sarantis Sofianos** **Curriculum Vitae**

Assistant Professor  
Department of Physics  
National and Kapodistrian University of Athens



### **Current Position:**

Assistant Professor of Physical Oceanography, Faculty of Physics, University of Athens  
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### **Professional History:**

2015 – Present Assistant Professor of Physical Oceanography, Faculty of Physics, University of Athens, Greece  
2009 - 2015 Lecturer of Physical Oceanography, Faculty of Physics, University of Athens, Greece  
2000 - 2009 Researcher, Faculty of Physics, University of Athens, Greece  
1995 - 2000 Research Assistant, University of Miami, USA  
1994 – 1995 Research Assistant, University of Athens, Greece

### **Education:**

BSc in Physics, **University of Athens**

PhD in Meteorology and Physical Oceanography, **University of Miami**, USA. Title: *"Circulation and Water Mass Formation in the Red Sea, and the Exchange with the Indian Ocean"*.  
Supervisor: Professor W. E. Johns.

## **A. RESEARCH ACTIVITY**

### **A.1 Publications**

#### **Publications in peer reviewed international journals and books:**

1. **Sofianos** S. S. and W. E. Johns, 2001: Wind induced sea level variability in the Red Sea, *Geophysical Research Letters*, 28, 3175-3178.
2. **Sofianos** S. S., W. E. Johns, and S. P. Murray, 2002: Heat and freshwater budgets in the Red Sea from direct observations at Bab el Mandeb, *Deep Sea Research II*, 49, 1323-1340.
3. **Sofianos** S. S. and W. E. Johns, 2002: An Oceanic General Circulation Model (OGCM) investigation of the Red Sea circulation, 1. The exchange between the Red sea and the Indian Ocean. *Journal of Geophysical Research*, 107, 3196, doi: 10.1029/2001JC001184.
4. **Sofianos**, S. S. and W. E. Johns, 2003: An Oceanic General Circulation Model (OGCM) investigation of the Red Sea circulation. Part II.: The three-dimensional circulation in the Red Sea. *Journal of Geophysical Research*, 108, 3066, doi: 10.1029/2001JC001185.
5. Lascaratos A., S. **Sofianos**, and G. Korres, 2003: Interannual variability of atmospheric parameters over the Mediterranean basin from 1945 to 1994, *CIESM Workshop Series*, vol. 16, pp. 21-24.
6. Theocharis A., A. Lascaratos, and S. **Sofianos**, 2003: Variability of sea water properties in the Ionian, Cretan and Levantine seas during the last century, *CIESM Workshop Series*, vol. 16, pp. 73–76.
7. Lascaratos A., S. **Sofianos**, A. Theocharis and M. Tsimplis, 2005: Long term water masses: time scales, in "State of the Hellenic Marine Environment", Eds. V. Papatthasiou and A. Zenetos, HCMR Publ., 360 pp, ISBN: 960-86651-8-3.

8. **Sofianos** S. S., N. Skliris, A. Mantziafou, A. Lascaratos, G. Zodiatis, R. Lardner, D. Hayes, and G. Georgiou, 2006: Nesting operational forecasting models in the Eastern Mediterranean: active and slave mode, *Ocean Science Discussions*, 3, 1225–1254.
9. Skliris N., S. **Sofianos** and A. Lascaratos, 2007: Hydrological changes in the Mediterranean Sea in relation to changes in the freshwater budget: A numerical modelling study, *Journal of Marine Systems*, 65, 400-416.
10. **Sofianos** S. S. and W. E. Johns, 2007: Observations of the summer Red Sea circulation, *Journal of Geophysical Research*, VOL. 112, C06025, doi:10.1029 - 2006JC003886.
11. Zodiatis, G., R. Lardner, D. Hayes, G. Georgiou, S. **Sofianos**, N. Skliris, A. Lascaratos, 2008: Operational ocean forecasting in the Eastern Mediterranean: implementation and evaluation, *Ocean Science*, 4, 31-47.
12. Skliris, N., A. Mantziafou, S. **Sofianos**, and A. Gkanasos, 2010: Satellite-derived variability of the Aegean Sea ecohydrodynamics, *Continental Shelf Research*, 30 (5), pp. 403-418.
13. Tzali, M., S. **Sofianos**, A. Mantziafou and N. Skliris, 2010: Modelling the impact of Black Sea water inflow on the North Aegean Sea hydrodynamics, *Ocean Dynamics*, DOI: 10.1007/s10236-010-0277-3.
14. Skliris, N., S. **Sofianos**, A. Gkanasos, A. Mantziafou, V. Vervatis, P. Axaopoulos, A. Lascaratos, 2011: Decadal scale variability of sea surface temperature in the Mediterranean Sea in relation to atmospheric variability, *Ocean Dynamics*, DOI 10.1007/s10236-011-0493-5.
15. Vervatis, V. D., S. **Sofianos**, and A. Theocharis, 2011: Distribution of the thermohaline characteristics in the Aegean Sea related to water mass formation processes (2005-2006 winter surveys), *J. Geophys. Res.*, doi:10.1029/2010JC006868.
16. Skliris, N., S. S. **Sofianos**, A. Gkanasos, P. Axaopoulos, A. Mantziafou, V. Vervatis, 2011: Long-term sea surface temperature variability in the Aegean Sea, *Advances in Oceanography and Limnology*, 2:2, 125-139.
17. Zafirakou-Koulouris A., C. Koutitas, S. **Sofianos**, A. Mantziafou, M. Tzali and S. C. Dermissi, 2012, Oil Spill Dispersion Forecasting with the aid of a 3D Simulation Model, *Journal of Physical Science and Application*, 2012, 10, 448-453.
18. Tonani, M., J. A. U. Nilsson, V. Lyubartsev, A. Grandi, A. Aydogdu, J. Azzopardi, G. Bolzon, A. Bruschi, A. Drago, T. Garau, J. Gatti, I. Gertman, R. Goldman, D. Hayes, G. Korres, P. Lorente, V. Malacic, A. Mantziafou, G. Nardone, A. Olita, E. Ozsoy, I. Pairaud, S. Pensieri, L. Perivoliotis, B. Petelin, M. Ravaioli, L. Renault, S. **Sofianos**, M. G. Sotillo, A. Teruzzi, and G. Zodiatis, 2012: Operational evaluation of the Mediterranean Monitoring and Forecasting Centre products: implementation and results, *Ocean Sci. Discuss.*, 9, 1813–1851, doi:10.5194/osd-9-1813-2012
19. Johns, W. E. and S. **Sofianos**, 2012, Atmospherically Forced Exchange through the Bab el Mandeb Strait, *J. Phys. Oceanogr.*, 42, 1143–1157.
20. Vervatis V. D., S. S. **Sofianos**, N. Skliris, S. Somot, A. Lascaratos and M. Rixen, 2013: Mechanisms controlling the thermohaline circulation pattern variability in the Aegean–Levantine region. A hindcast simulation (1960–2000) with an eddy resolving model, *Deep-Sea Research I*, 74, 82–97.
21. Özsoy E., S. **Sofianos**, I. Gertman, A. Mantziafou, A. Aydoğdu, S. Georgiou, E. Tutsak, A. Lascaratos, A. Hecht and M. A. Latif, 2014: Deep-water variability and inter-basin interactions in the Eastern Mediterranean Sea, in: *The Mediterranean sea: temporal variability and spatial patterns, Geophysical Monograph Series*, 202, 85-112.
22. Malanotte-Rizzoli P., V. Artale, G. L. Borzelli-Eusebi, S. Brenner<sup>4</sup>, G. Civitarese, A. Crise, J. Font, M. Gacic, N. Kress, S. Marullo, E. Ozsoy, M. Ribera d’Alcalà, W. Roether, K. Schroeder, S. **Sofianos**, T. Tanhua, A. Theocharis, M. Alvarez, Y. Ashkenazy, A. Bergamasco, V. Cardin, S. Carniel, F. D’Ortenzio, E. Garcia-Ladona, J. M. Garcia-Lafuente, A. Gogou, M. Gregoire, D. Hainbucher, H. Kontoyannis, V. Kovacevic, E. Krasakapoulou, G. Krokos, A. Incarbona, M. G. Mazzocchi, M. Orlic, A. Pascual, P.-M. Poulain, A. Rubino, J. Siokou-Frangou, E. Souvermezoglou, M. Sprovieri, I. Taupier-Letage, J. Tintoré, and G. Triantafyllou, 2014: Physical forcing and

- physical/biochemical variability of the Mediterranean Sea: a review of unresolved issues and directions for future research, *Ocean Science*, 10, 281-322, doi: 10.5194/os-10-281-2014.
23. Georgiou, S., A. Mantziafou, S. **Sofianos**, I. Gertman, E. Özsoy, S. Somot and V. Vervatis, 2014: Climate Variability and Deep Water Mass Characteristics in the Aegean Sea, *Atmos. Res.*, 152, 146-158, DOI: 10.1016/j.atmosres. 2014.07. 023.
  24. Vervatis, V., N. Skliris and S. **Sofianos**, 2014: INTER-annual/decadal variability of the north Aegean Sea hydrodynamics over 1960-2000, *Medit. Mar. Sci.*, 15/4, 2014, SPECIAL ISSUE, 696-705.
  25. **Sofianos**, S., V.Vervatis, A. Mantziafou, M. Ravdas and S. Georgiou, 2015: Investigating deep-water formation variability in the Aegean Sea and its influence in the adjacent basins deep circulation, *J. Black Sea/Medit. Envir.*, Special Issue, 74-77.
  26. **Sofianos**, S. and W. E. Johns, 2015: Water Mass Formation, Overturning Circulation, and the Exchange of the Red Sea with the Adjacent Basins, in: N.M.A Rasul and I.C.F Stewart (eds.), *The Red Sea*, Springer Earth System Sciences, DOI 10.1007/978-3-662-45201-1\_20.
  27. Hernandez, F., E. Blockley, G. B. Brassington, F. Davidson, P. Divakaran, M. Drévillon, S. Ishizaki, M. Garcia-Sotillo, P. J. Hogan, P. Lagemaa, B. Levier, M. Martin, A. Mehra, C. Mooers, N. Ferry, A. Ryan, C. Regnier, A. Sellar, G. C. Smith, S. **Sofianos**, T. Spindler, G. Volpe, J. Wilkin, E. D. Zaron, A. Zhang, 2015: Performance evaluations, near real-time assessment of operational oceanography forecast products, *J. Oper. Ocean*, <http://dx.doi.org/10.1080/1755876X.2015.1050282>.
  28. Papadopoulos, V. P., Zhan, P., **Sofianos**, S. S., Raitzos, D. E., Qurban, M., Abualnaja, Y., Bower, A., Kontoyiannis, H., Pavlidou, A., Asharaf T.T., M., Zarokanellos, N. and Hoteit, I., 2015: Factors governing the deep ventilation of the Red Sea. *J. Geophys. Res. Oceans*, 120, 7493–7505 DOI:10.1002/2015JC010996
  29. Licer, M., P. Smerkol, A. Fettich, M. Ravdas, A. Papapostolou, A. Mantziafou, B. Strajnar, J. Cedilnik, M. Jeromel, J. Jerman, S. Petan, V. Malacic, and S. **Sofianos**, 2016: Modeling ocean and atmosphere during an extreme Bora event in Northern Adriatic using one-way and two-way atmosphere-ocean coupling, *Ocean Sci.*, 12, 71-86, doi:10.5194/os-12-71-2016.
  30. Mavropoulou, A.-M., A. Mantziafou, E. Jarosz and S. **Sofianos**, 2016: The influence of Black Sea Water inflow and its synoptic time-scale variability in the North Aegean Sea hydrodynamics, *Ocean Dynamics*, 66(2), 195-206, doi: 10.1007/s10236-016-0923-5
  31. Kostopoulos, V., E. Chrisagi, S. **Sofianos**, K. Helmis, 2016: Study of the impact of a new Drag Coefficient parameterization on the forecasting skill of an Ocean Model in the Aegean and Levantine Seas, *Med. J. Physics*, 1 (1), 22-31.
  32. Zodiatis, G., M. De Dominicis, L. Perivoliotis, H. Radhakrishnan, E. Georgoudis, M. Sotillo, R. W. Lardner, G. Krokos, D. Bruciaferri, A. Ribotti, A. Drago, E. Bourma, E. Padorno, P. Daniel, G. Gonzalez, C. Chazot, V. Gouriou, S. **Sofianos**, J. Tintore, P. Garreau, N. Pinardi, G. Coppini, A. Pisano, E. D'Acunzo, R. Sorgente, L. Fazioli, D. Soloviev, S. Stylianou, A. Nicolaidis, X. Panayidou, A. Karaolia, 2016: The Mediterranean Decision Support System for Marine Safety dedicated to oil slicks predictions, *Deep Sea Res. Part II*, <http://dx.doi.org/10.1016/j.dsr2.2016.07.014>
  33. **Sofianos** S. and W. E. Johns, 2017: The Summer Circulation in the Gulf of Suez and Its Influence in the Red Sea Thermohaline Circulation, *J. Phys. Oceanogr.*, DOI: 10.1175/JPO-D-16-0282.1
  34. Zarokanellos, N. D., V. P. Papadopoulos, S. S. **Sofianos**, and B. H. Jones, 2017: Physical and biological characteristics of the winter-summer transition in the Central Red Sea, *J. Geophys. Res. Oceans*, 122, doi:10.1002/2017JC012882.
  35. Hatzonikolakis, Y., K. Tsiaras, J. A. Theodorou, G. Petihakis, S. **Sofianos** and G. Triantafyllou, 2017: Simulation of mussel *Mytilus galloprovincialis* growth with a dynamic energy budget (DEB) model in Maliakos and Thermaikos Gulfs (E. Mediterranean), *Aquaculture Environment Interactions*, DOI: <https://doi.org/10.3354/aei00236>
  36. Zodiatis, G., R. Lardner, T. M. Alves, Y. Krestenitis, L. Perivoliotis, S. **Sofianos** and K. Spanoudaki, 2017: Oil spill forecasting (prediction), *J. Mar. Res.*, 75, 923–953.

37. Mitchell, N. C. and **S. S. Sofianos**, 2018: Origin of submarine channel north of Hanish Sill, Red Sea, in: N. M. A. Rasul and I. C. F. Stewart (eds.), Geological Setting, Palaeoenvironment and Archaeology of the Red Sea, Springer Earth System Sciences, ISBN 978-3-319-99408-6, DOI: 10.1007/978-3-319-99408-6.

38. Iona, A., Theodorou, A., Sofianos, S., Watelet, S., Troupin, C., and Beckers, J.-M.: Mediterranean Sea climatic indices: monitoring long-term variability and climate changes, *Earth Syst. Sci. Data*, 10, 1829-1842, <https://doi.org/10.5194/essd-10-1829-2018>, 2018.

#### **Publications in peer reviewed international conference proceedings:**

Johns W. E., S. P. Murray, and S. S. Sofianos, 1998: Atmospherically forced exchange through the strait of Bab el Mandeb, 1998 Ocean Sciences Meeting, AGU, February 1998, San Diego, California, USA.

Sofianos S. S. and W. E. Johns, 2000: Investigation of the seasonal exchange between the Red Sea and the Indian Ocean, a numerical model approach, 2000 Ocean Sciences Meeting, AGU, January 2000, San Antonio, Texas, USA.

Johns W. E. , S. S. Sofianos, and S. P. Murray, 2000: The exchange flow at Bab el Mandeb and the inferred heat and freshwater budgets of the Red Sea, April 2000, EGS XXV General Assembly, Nice, France.

Sofianos S. S. and W. E. Johns, 2000: Modeling the seasonal exchange between a semi-enclosed sea and the open ocean, April 2000, EGS XXV General Assembly, Nice, France.

Johns W. E. and S. S. Sofianos, 2002: Atmospherically forced exchange through the strait of Bab el Mandeb. April 2002, Villefrance, Second ONR Straits Workshop.

Korres G., A. Lascaratos and S. Sofianos, 2002: Use of atmospheric forecast fields in ocean circulation and wave prediction models in Greek areas, 5th RAMS Workshop and Related Applications. 29 Sept. – 3 Oct. 2002, Santorini, Greece.

Korres G., A. Lascaratos, S. Sofianos and G. Kallos, 2002: The ALERMO ocean circulation forecast system, 3rd EuroGOOS Conference, December 2002, Athens, Greece

Korres G., A. Lascaratos, S. Sofianos and G. Kallos. 2002: The TRITON wave forecast system, 3rd EuroGOOS Conference, December 2002, Athens, Greece

Johns W. E., S. P. Murray, S. Sofianos, D. B. Olson and F. Yao, 2003: Exchanges of the Arabian Marginal Seas with the Indian Ocean, IUGG 2003 Meeting, Sapporo, Japan, June 30 – July 11, 2003.

Sofianos S., N. Skliris, and A. Lascaratos, 2004: Forcing mechanisms of the Aegean Sea Circulation, CIESM 2004 Meeting, Barcelona, May 2004.

Lascaratos A. and S. Sofianos, 2004: Deep water mass variability in the Eastern Mediterranean, CIESM 2004 Meeting, Barcelona, May 2004.

Druon J-N., W. Schrimpf, S. Dobricic, E. Peneva , A. Lascaratos, S. Sofianos , P. Garreau, S. Djavidnia, 2004: Relative Contribution of the Eutrophication and Hydromorphology to Bottom Oxygen Deficiency: The case of the Mediterranean and Black Seas, CIESM 2004 Meeting, Barcelona, May 2004.

Sofianos S., A. Lascaratos, and V. Vervatis, 2004: Monitoring the Saharan dust dispersion in the Mediterranean Sea with a numerical model (2001-2002), CIESM 2004 Meeting, Barcelona, May 2004.

Skliris N., A. Lascaratos, and S. Sofianos, 2004: Modelling the impact of the Nile damming on the Mediterranean thermohaline circulation, CIESM 2004 Meeting, Barcelona, May 2004.

Skliris N., S. Sofianos, A. Lascaratos, 2004: Past and future changes in the Mediterranean "climate" in relation to changes in the freshwater budget: a numerical modeling study, 36th International Liege Colloquium on Ocean Dynamics: "Marine Environmental Monitoring and Prediction", May 2004, Liege, Belgium.

Kallos G., S. Sofianos, I. Pytharoulis, P. Katsafados and N. Skliris, 2005: Limited area atmosphere/ocean forecasting system for the Eastern Mediterranean MFSTEP activities, 2005 International Ocean Research Conference, UNESCO-TOS, Paris, France, June 2005.

- Sofianos S., N. Skliris, V. Vervatis, D. Olson, V. Kourafalou, A. Lascaratos and W. Johns, 2005: On the Forcing Mechanisms of the Aegean Sea Surface Circulation, *Geophysical Research Abstracts*, Vol.7, 04223.
- Skliris N., S. Sofianos and A. Lascaratos, 2006: Changes in the Mediterranean Sea climate in relation to changes in the freshwater budget: a numerical modeling study, *Geophysical Research Abstracts*, Vol.8, 02251.
- Zodiatis G., R. Lardner, D. Hayes, G. Georgiou, S. Sofianos, N. Skliris and A. Lascaratos, 2006: Implementation and evaluation of regional and coastal ocean forecasting systems in the Eastern Mediterranean, *Geophysical Research Abstracts*, Vol.8, 04627.
- Theocharis A., V. Vervatis and S. Sofianos, 2006: Monitoring the evolution of the Aegean Sea thermohaline characteristics in the post-Eastern Mediterranean Transient period, *Geophysical Research Abstracts*, Vol.8, 06515.
- Sofianos S., A. Theocharis and V. Vervatis, 2006: Profiling Float Observations in the Aegean Sea, Second Argo Science Workshop, Venice, Italy, March 13-18, 2006.
- Skliris N., S. Sofianos, A. Mantziafou and A. Lascaratos, 2007: Ocean Forecasting in the Eastern Mediterranean, the ALERMO system, CIESM 2007 Meeting, Istanbul, Turkey.
- Sofianos S., A. Theocharis and V. Vervatis, 2007: Changes in the Aegean Sea Thermohaline Characteristics in the Post-Eastern Mediterranean Transient Period, CIESM 2007 Meeting, Istanbul, Turkey.
- Skliris N., A. Mantziafou, S. Sofianos, A. Lascaratos, I. Keramitsoglou, G. Vlahopoulos, N. Adaktilou and C. Cartalis, 2007: Modelling the Ecohydrodynamics of the Aegean Sea, EGU General Assembly, Vienna 15-20 April 2007.
- Zodiatis G., R. Lardner, D. Hayes, G. Georgiou, S. Sofianos, N. Skliris, G. Kallos and A. Lascaratos, 2007: Validation of Ocean Forecasts in the Levantine Basin, Eastern Mediterranean, International Conference, Fluxes and Structures in Fluids, St. Petersburg, Russia, July 2007.
- Sofianos S., 2007: The Mediterranean Operational Oceanography Network Forecasting System, GODAE Coastal Workshop, Liverpool, UK, October 2007.
- Skliris N., A. Mantziafou, S. Sofianos, A. Lascaratos, I. Keramitsoglou, G. Vlahopoulos, C. Cartalis, V. Paraskevopoulou, M. Scoullou, 2008: A study of the plankton ecosystem of the Aegean Sea using Seawifs data and a 3D coupled hydrodynamic/biological model, EGU General Assembly, Vienna, April 2008.
- Zodiatis G., D. Hayes, R. Lardner, G. Georgiou, S. Sofianos, N. Skliris, A. Lascaratos, 2008: Evaluation of operational ocean forecasting in the Cyprus subregion, EGU General Assembly, Vienna, April 2008.
- Sofianos, S., 2008: Evolution of the Aegean Sea thermohaline structure in the post-Eastern Mediterranean Transient period, 3rd ESF MedCLIVAR Workshop Rhodes, September 2008 (INVITED).
- Zodiatis G., S. Sofianos, N. Skliris, A. Mantziafou, A. Lascaratos, R. Lardner, D. Hayes, G. Georgiou G., 2009: Evaluating nesting procedures in ocean operational forecasting in the Eastern Mediterranean, Fluxes and Fluid structure conference, Moscow, Lomonosov University, June 2009.
- Skliris N., A. Mantziafou, S. Sofianos, A. Gkanasos, V. Vervatis, 2009: Variability of sea surface temperature and chlorophyll in the Aegean Sea from satellite measurements, EGU General Assembly, Vol. 11, EGU2009-487.
- Vervatis V., S. Sofianos, and A. Theocharis, 2009: Water mass distribution and formation processes in the Aegean Sea, EGU General Assembly, Vol. 11, EGU2009-4794.
- Tzali, M., Sofianos, S., Kallos, G., Mantziafou, A., Zafeirakou, A., Dermisis, V., Koutitas, Ch., Zervakis, V., 2009: Oil spill dispersion forecasting system for the region of installation of the burgas alexandroulopis pipeline outlet (N.E. Aegean) in the framework of "DIAVLOS" project, AIP Con. Proc., DOI:10.1063/1.3322304.
- Axaopoulos, P. and S. Sofianos, 2009: Long term variability of sea surface temperature in Mediterranean Sea, AIP Con. Proc., DOI: 10.1063/1.3322579.

- Sofianos S., 2009: Extreme event impact on 3-D thermohaline structure variability in the Aegean-Levantine region, 3rd HyMeX Workshop, 1-4 June 2009, Heraklion, 2009 (INVITED).
- Zafeirakou-Koulouris, A., C. Koutitas, S. Sofianos, A. Mantziafou, M. Tzali, V. Dermisis and S. Dermisi, 2009, Modeling the evolution and fate of an oil slick with a 3-D simulation model, 3rd International Conference on Experiment, Process, System Modeling, Simulation and Optimization, Athens 8-11 July 2009.
- Sofianos S., 2010: Monitoring and modelling the dynamics of the Aegean-Levantine basins, 4th HyMeX Workshop, 8-10 June 2010, Bologna, Italy, 2010.
- Skliris N., A. Mantziafou, S. Sofianos, A. Gkanasos, P. Aksaopoulos, and V. Vervatis, 2010: Satellite-derived long-term variability of sea surface temperature in the Mediterranean Sea, Geophysical Research Abstracts Vol. 12, EGU2010-6448.
- Sofianos S., N. Skliris, A. Mantziafou and M. Tzali, 2010: Ocean forecasting in the Aegean-Levantine region, Eos Trans. AGU, 91(26), Ocean Sci. Meet. Suppl., 2010.
- Skliris N., A. Mantziafou, S. Sofianos, A. Gkanasos and A. Lascaratos, 2010: Sea surface temperature and chlorophyll non-seasonal variability in the Aegean sea by means of EOF analysis of satellite data, 39th CIESM Congress, Venice, Italy, 2010.
- Zodiatis, G., Hayes, D., Lardner, R., Georgiou, G., Kallos, G., Sofianos, S. Pinardi N. and Panayidou, X., 2010: Marine core and downstream oceanographic services in the Eastern Mediterranean Levantine Basin and their success in assisting the EU response agencies. In Proceedings of the 5th EuroGOOS Conference, Coastal to Global Operational Oceanography: Achievements and Challenges, publication (No. 28, pp. 465-472).
- Kallos G., G. Galanis, C. Mitsakou, P. Athanasiadis, C. Spyrou, S. Sofianos, and C. Kalogeri, 2011: Energy resource mapping at the framework of MARINA PLATFORM project, Geophysical Research Abstracts Vol. 13, EGU2011-11950.
- Sofianos S., N. Skliris, A. Mantziafou, A. Lascaratos and M. Tzali, 2011: Advances in forecasting the Aegean-Levantine circulation, 2nd Scientific Conference and Annual General Assembly of the European Federation of Marine Science and Technology Societies, Athens, Greece, July 2011.
- Vassilios Vervatis, Sarantis Sofianos, and Nikolaos Skliris, 2011: Dynamical features of the Aegean-Levantine Seas: Interannual simulations for the years 1960-2000, 2nd Scientific Conference and Annual General Assembly of the European Federation of Marine Science and Technology Societies, Athens, Greece, July 2011.
- Skliris N., S. S. Sofianos, A. Ganasos, A. Mantziafou, P. Axaopoulos, V. Vervatis, 2011: Sea surface temperature variability in the Aegean Sea during 1985-2008, 2nd Scientific Conference and Annual General Assembly of the European Federation of Marine Science and Technology Societies, Athens, Greece, July 2011.
- Sofianos, S., and Vervatis, V., 2012: The response of the Aegean and Levantine seas to changes of the air-sea fluxes, AGU, Ocean Sci. Meeting, Salt Lake City, 2012.
- Cradden, L. C. Kalogeri, C. Spyrou, A. Adam, C. Stathopoulos, G. Galanis, S. Sofianos, D. Ingram, G. Kallos, A. Papapostolou, P. Axaopoulos, 2012: A combined resource atlas for marine energy, 4th International Conference on Ocean Energy, 17 October, Dublin, 2012.
- Sofianos S., Vervatis V., Skliris N., Somot S., Lascaratos A., Mantziafou A., 2012: Climate variability and water mass formation in the Eastern Mediterranean Sea, 11th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens May-June 2012.
- Özsoy, E., Sofianos, S., Gertman, I., Mantziafou, A., Aydoğdu, A., Vervatis, V., Tutsak, E., Lascaratos, A. and Latif, M. A. Deep-water variability and inter-basin interactions in the Eastern Mediterranean Sea, MedCLIVAR 2012 Conference, Madrid, September 2012.
- Sofianos S. and W. Johns, 2013: Water-mass formation, overturning circulation and the exchange of the Red Sea with the adjacent basins, Saudi Geological Survey Conference, Red Sea: Its origin Structure and Environment, Jeddah, 2013 (INVITED)
- Özsoy E., S. Sofianos, I. Gertman, A. Mantziafou, A. Aydogdu, S. Georgiou, E. Tutsak, A. Lascaratos, Artur Hecht, and M. A. Latif, 2013: Deep-water variability and inter-basin interactions in the Eastern

- Mediterranean Sea, Geophysical Research Abstracts Vol. 15, EGU2013-3990, 2013, EGU General Assembly, Vienna 2013.
- Ravdas M., S. Sofianos, A. Mantziafou, and V. Vervatis, 2013: The Dynamics of the Ionian Sea and its climatic implication: Interannual simulation for the period 1960-2000, Geophysical Research Abstracts, Vol. 15, EGU2013-4909, 2013, EGU General Assembly, Vienna 2013.
- Kallos G., G. Galanis, C. Spyrou, C. Mitsakou, S. Solomos, N. Bartsotas, C. Kalogrei, I. Athanaselis, S. Sofianos, V. Vervatis, P. Axaopoulos, A. Papapostolou, J. Al Qahtani, E. Alaa, I. Alexiou, and D. Beard, 2013: An integrated weather and sea-state forecasting system for the Arabian Peninsula (WASSF), Geophysical Research Abstracts, Vol. 15, EGU2013-10629, 2013, EGU General Assembly, Vienna 2013.
- Hayes D., S. Dobricic, G. Zodiatis and S. Sofianos, 2013: Assimilating glider data operationally in the CYCOFOS Levantine model, Geophysical Research Abstracts, Vol. 15, EGU2013-9771, 2013, EGU General Assembly, Vienna 2013.
- Zambianchi E., P.-M. Poulain, P. Wang, A. Kalampokis, M. Berta, M. Borghini, B. Buonocore, D. Cianelli, P. Falco, R. Gerin, I. Iermano, C. Mantovani, G. Nicolaides, T. Ozgokmen, S. Sofianos, M. Uttieri, V. Zervakis, 2013: Surface circulation in the Gulf of Naples during the Gelato 2012 experiment, 40th CIESM Congress, Marseilles, France.
- Zervakis V., E. Tragou, S. Leontiou, P.-M. Poulain, R. Gerin, , S. Kioroglou, S. Sofianos, 2013: Estimation of residence times and mixing rates in the Hellenic Seas, 40th CIESM Congress, Marseilles, France.
- Sofianos S., V. Zervakis, M. Bekiari and E. Chrysagi, 2013: Evaluating oil-spill dispersion forecasting in the Northern Aegean Sea, GODAE – Oceanview Symposium 2013, 4-6 November 2013, Baltimore, USA.
- Sofianos S., 2014: Climate change impact on the Mediterranean Sea, Symposium on Impact of Climate Change on Coastal Cities, 30 January 2014, Izmir (INVITED).
- Sofianos, S., E. Özsoy, I. Gertman, V. Vervatis and M. Ravdas, 2014: The response of the Aegean and Levantine seas to changes of the air-sea fluxes, AGU, Ocean Sci. Meeting, Honolulu, Hawaii, USA 2014.
- Sofianos, S., G. Kallos, G. Galanis, M. Bekiari, E. Chrysagi, 2014: Modeling/forecasting the ocean circulation in the Red Sea and Arabian Gulf, towards an oil spill prediction operational system, 7th PetroEnvironment Symposium and Exhibition, February 2014, Al Khobar, Saudi Arabia
- Mavropoulou, A. M., S. Sofianos, A. Mantziafou, and E. Jarosz, 2014: The influence of Black SeaWater inflow and its synoptic time-scale variability in the North Aegean Sea hydrodynamics, Geophysical Research Abstracts, Vol. 16, EGU2014-6612-1, 2014, EGU General Assembly, Vienna 2014.
- Sofianos S., V. Vervatis, A. Mantziafou and M. Ravdas, 2014: Investigating deep-water formation variability in the Aegean Sea and its influence in the adjacent basins deep circulation, MEDCLIVAR 2014 Conference, June 2014, Ankara, Turkey.
- Sofianos S., 2014: Monitoring and modeling the Eastern Mediterranean circulation and its climatic variability, EastMed Symposium 2014, November 17-20, Limassol, Cyprus. (INVITED)
- Sofianos S., V. P. Papadopoulos, D. Denaxa and Y. Abualnaja, 2014: Investigating the interannual variability of the circulation and water mass formation in the Red Sea, AGU Fall Meeting 2014, December 15-19, 2014, San Francisco, USA.
- Kostopoulos V., E. Chrisagi, S. Sofianos and C. Helmis, 2015: On the influence of a regional drag coefficient parameterization scheme in the forecasting skill of an ocean model in the Aegean and Levantine Seas, Geophysical Research Abstracts, Vol. 17, EGU2015-8445, 2015, EGU General Assembly, Vienna 2015.
- Licer M., P. Smerkol, A. Fetich, M. Ravdas, A. Papapostolou, A. Mantziafou, J. Cedinlik, B. Stajnar, M. Jeromel, N. Pristov, J. Jerman, S. Petan, V. Malacic and S. Sofianos, 2015: Ocean Dynamics Simulation during an Extreme Bora Event using a Two-Way Coupled Atmosphere-Ocean Modelin

- System, Geophysical Research Abstracts, Vol. 17, EGU2015-1924, 2015, EGU General Assembly, Vienna 2015.
- Sofianos, S., 2015: Forcing mechanisms of the Eastern Mediterranean thermohaline variability, EastMed Symposium 2015, October 19-21, Haifa, Israel. (INVITED)
- Papadopoulos, V., Y. Abualnaja, S. Sofianos and I. Hoteit, 2015: Sea Surface Temperature Variability and Driving Factors in the Red Sea, International Symposium on the Indian Ocean, November 30 - December 4, 2015, Goa, India.
- Sofianos, S., V. Papadopoulos, Y. Abualnaja, A. Nenes and I. Hoteit, 2016: Monsoon-driven variability in the southern Red Sea and the exchange with the Indian Ocean, AGU, Ocean Sci. Meeting, New Orleans, Louisiana, USA 2016.
- Zodiatis, G., G. Galanis, H. Radhakrishnan, A. Nikolaidis, G. Emmanouil, G. Nikolaidis, R. Lardner, S. Sofianos, S. Stylianou, and M. Nikolaidis, 2016: Downscaling the Copernicus marine service- the CYCOFOS new forecasting systems at regional and sub-regional scales in the Mediterranean Sea, HRCF workshop, Met Office, Exeter, UK 13-15 April 2016
- Zodiatis, G., H. Radhakrishnan, G. Galanis, A. Nikolaidis, G. Emmanouil, G. Nikolaidis, R. Lardner, S. Sofianos, S. Stylianou, and M. Nikolaidis, 2016: The CYCOFOS new forecasting systems at regional and sub-regional scales for supporting the marine safety, Geophysical Research Abstracts, Vol. 18, EGU2016-13807, 2016, EGU General Assembly 2016.
- Kailas, M., E. Chrysagi, and S. Sofianos, 2016: Forecasting skill assessment of an oil spill simulation system in the NE Aegean and atmospheric forcing perturbation experiments, Geophysical Research Abstracts, Vol. 18, EGU2016-11712, 2016, EGU General Assembly 2016
- Licer, M., P. Smerkol, A. Fettich, M. Ravdas, A. Papapostolou, A. Mantziafou, B. Strajnar, J. Cedilnik, M. Jeromel, J. Jerman, S. Petan, A. Benetazzo, Sandro Carniel, V. Malacic, and S. Sofianos, 2016: Computed and observed turbulent heat fluxes during an extreme Bora event in the Adriatic using atmosphere-ocean coupling, Geophysical Research Abstracts, Vol. 18, EGU2016-2084-1, 2016, EGU General Assembly 2016
- Licer, M., P. Smerkol, A. Fettich, M. Ravdas, A. Papapostolou, A. Mantziafou, B. Strajnar, J. Cedilnik, M. Jeromel, J. Jerman, S. Petan, A. Benetazzo, S. Carniel, V. Malacic, and S. Sofianos, 2016: Modeling turbulent heat fluxes during an extreme Bora event in the Adriatic using atmosphere-ocean coupling, EMS Annual Meeting Abstracts, Vol. 13, EMS2016-448, 2016.
- Pefanis, V., A. Nenes, A. M. Mavropoulou, V. Vervatis, S. Sofianos, 2016: Impact of surface water turbidity on the dynamics of the Mediterranean Sea and its interaction with the atmosphere, MEDCLIVAR 2016 Conference, September 2016, Athens, Greece.
- Mavropoulou, A. M., A. Nenes, S. Sofianos, 2016: Interannual variability of the oxygen minimum zone in the Mediterranean Sea, MEDCLIVAR 2016 Conference, September 2016, Athens, Greece.
- Zodiatis, G., I. Gertman, P-M. Poulain, M. Menna and S. Sofianos, 2016: Two decades of monitoring and forecasting of the circulation in the Levantine (1995-2016), 41st CIESM Congress, Kiel Germany, 2016.
- Chaikalis, S., A.P. Karageorgis, S. Sofianos, P. Drakopoulos, 2016: Estimating zscat in ultra-oligotrophic seas: implications for LISST-Deep scattering measurements PiE – 2016, Conference, October 2016, Budapest, Hungary.
- Vervatis V., P. De Mey, N. Ayoub, M. Kailas, and S. Sofianos, 2017: Stochastic Coastal/Regional Uncertainty Modelling: a Copernicus marineresearch project in the framework of Service Evolution, Geophysical Research Abstracts, Vol. 19, EGU2017-10054, 2017, EGU General Assembly 2017.
- Zodiatis, G., G. Galanis, A. Nikolaidis, H. Radhakrishnan, G. Emmanouil, G. Nikolaidis, R. Lardner, S. Sofianos, S. Stylianou, M. Nikolaidis and V. Vervatis, 2017: Downscaling the Copernicus CMEMS Med MFC in the Eastern Mediterranean: The new CYCOFOS forecasting systems at regional and sub-regional scales, EUROGOOS Conference on Operational Oceanography, October 2017, Bergen, Norway.



Vervatis, V., P. De Mey, M. Kailas, N. Ayoub and S. Sofianos, 2017: Stochastic Coastal/Regional Uncertainty Modelling: insights from ensemble sensitivity/consistency experiments, 5th GODAE OceanView COSS-TT-ICM5, Cape Town, South Africa, 3-7 April 2017

De Mey, P., V. Vervatis, N. Ayoub, M. Kailas, G. Charria, J. Lamouroux, Ch. Skandrani, M. Iskandarani, M. Le Hénaff, and S. Sofianos, 2017: Array design and ensemble consistency analysis, GODAE OceanView Joint DA-TT & OSEval-TT Meeting, CMRE, La Spezia, 11-13 October 2017

Krokos, G., V. Papadopoulos, S. Sofianos and I. Hoteit, 2018: Assessing the Long-Term SST Response of the Red Sea to Natural Climate Variability, AGU, Ocean Sci. Meeting, Portland, Oregon, USA 2018.

Vervatis V., P. De Mey, M. Kailas, N. Ayoub, and S. Sofianos, 2018: Model uncertainties stemming from ocean-biogeochemical autoregressive processes: a high-resolution application for the Bay of Biscay, AGU, Ocean Sci. Meeting, Portland, Oregon, USA 2018.

Sofianos, S., V. Papadopoulos, Y. Abualnaja, D. Giouroukou, G. Krokos and I. Hoteit, 2018: Summer-time monsoon-driven variability in the Red Sea and the exchanges with the Indian Ocean, AGU, Ocean Sci. Meeting, Portland, Oregon, USA 2018.

Zodiatis, G., H. Radhakrishnan, G Galanis, A. Nikolaidis, G. Emmanouil, G. Nikolaidis, R. Lardner, S. Stylianou, M. Nikolaidis, S. Sofianos and V. Vervatis, 2018: Downscaling the Copernicus marine service in the Eastern Mediterranean, AGU, Ocean Sci. Meeting, Portland, Oregon, USA 2018.

Mavropoulou, A.-M., V. Vervatis, A. Nenes and S. Sofianos, 2018: Interannual to decadal variability of the Oxygen minimum zone in the Mediterranean Sea, The 50th International Liege colloquium on ocean dynamics: Long-term studies in oceanography, Liege, Belgium, 28 May - 1 June, 2018

**Publications in peer reviewed national conference proceedings:**

12 publications in national conference (peer reviewed) proceedings

**Reviewer for International Journals:**

Reviewer in 17 international journals and participation in one editorial board (Mediterranean Marine Science)

**A.2 Projects**

**Participation in Research Projects as a member of the research team:**

1. Hydrodynamics and geochemical fluxes in the Strait of Otranto (OTRANTO) (MAS2-CT93-0068)
2. Hydrodynamics and biochemical processes in the straits of the Cretan Arc (PELAGOS) (MAS2-CT93-0059)
3. Mediterranean Eddy Resolving Modeling and Interdisciplinary Studies (MERMAIDS) (MAS2-CT93-0055)
4. Dynamics of Boundary Currents and Marginal Seas (N00014-95-1-0025)
5. Σύστημα πρόγνωσης καιρού υψηλής ευκρίνειας για ναυτιλιακές και άλλες εφαρμογές (NHPEΑΣ)
6. Σύστημα παρακολούθησης, πρόγνωσης και πληροφόρησης για την κατάσταση των Ελληνικών θαλασσών (ΠΟΣΕΙΔΩΝ)
7. Mediterranean Forecasting System Pilot Project (MFSPP) (MAS3-PL97-1608)
8. Atmospheric Deposition and Impact of pollutants, key elements and nutrients on the Open Mediterranean Sea (ADIOS) (EVK3-CT-2000-0035)
9. Development and Application of Validated Geophysical Ocean Wave Products from ENVISAT ASAR and RA-2 Instruments (EnviWave) (EVG2-2001-00017)
10. Mediterranean Forecasting System Toward Environmental Prediction (MFSTEP) (EVK3-CT-2003-00075)
11. Εφαρμογή αριθμητικών μοντέλων για διερεύνηση πιθανότητας εμφάνισης ευτροφικών φαινομένων σε παράκτιες περιοχές επηρεαζόμενες από ποτάμια - ΠΥΘΑΓΟΡΑΣ II (70/3/8016)

12. Καταγραφή παραγωγικότητας Ελληνικών θαλασσών και ανάπτυξη διαχειριστικού εργαλείου για την πρόληψη και αντιμετώπιση περιστατικών ευτροφισμού - ΠΥΘΑΓΟΡΑΣ II (70/3/8045)
13. Climate Change and Impact Research: the Mediterranean Environment – CIRCE (Integrated Project 036961)
14. MARINA Platform: Evaluation of multi-purpose platforms for Marine Renewable Energy (241402)
15. A weather, dust, wave, sea currents and tidal forecasting system for the Arabian Peninsula, Red Sea and Gulf Region (WASSF)
16. EMODNET MedSea Checkpoint

**Participation in Research Projects as a Principal Investigator:**

1. Aegean Sea Workshop (N00014-02-1-1089)
2. Profiling Float Observation in the Aegean Sea (N00014-04-1-0524)
3. International Action for the Sustainability of the Mediterranean and the Black Sea Environment – IASON (SSA No. 515234)
4. Ανάπτυξη και εφαρμογή εργαλείων διαχείρισης κρίσεων ρύπανσης από πετρελαιοκηλίδες στη περιοχή εγκατάστασης του αγωγού Burgas – Αλεξανδρούπολης (Βορειοανατολικό Αιγαίο) – ΔΙΑΥΛΟΣ (ΑΜΘ 16)
5. European COastal-shelf sea OPERational observing and forecasting system – ECOOP (Integrated Project 036355)
6. MyOcean (CA 18122008)
7. Development of the Integrated Parallel Cyprus Coastal Ocean Forecasting System
8. Tracking Oil Spills and Coastal Awareness Network (TOSCA) (MED 2340)
9. MyOcean II - Integration of pan-European capacity for Ocean Monitoring and Forecasting (GMES Programme) (283367)
10. ARSOCEANS - Operational system for the sea modeling (2334-12-700001)
11. Mediterranean Decision Support System for Marine Safety (MED 3653)
12. MyOcean Follow On (633085)
13. SCRUM: Stochastic coastal/regional uncertainty modelling: sensitivity, consistency and potential contribution to CMEMS ensemble data assimilation
14. SCRUM II: Stochastic coastal/regional uncertainty modelling: sensitivity, consistency and potential contribution to CMEMS ensemble data assimilation -2

**Evaluator for Research Proposals:**

EU 6th Framework Project evaluation activities, EU 7th Framework Project evaluation activities., National Science Foundation, USA, Israeli Science Foundation, Israel

**A3. Field experience**

**Participation in oceanographic cruises:**

1. November 1994: Participation in an oceanographic cruise at the Otranto Strait in the framework of the *OTRANTO* project (R/V AEGAEO).
2. January 1995: Participation in an oceanographic cruise in the Cretan Sea in the framework of the *PELAGOS* project (R/V AEGAEO).
3. February 1995: Participation in an oceanographic cruise at the Otranto Strait in the framework of the *OTRANTO* project (R/V AEGAEO).
4. February 2000 – March 2000: Participation in a cruise in the equatorial Atlantic in the framework of the *North Brazil Current Rings Experiment (NBC)* project (R/V SEWARD JOHNSON).
5. August 2001: Coordination and participation, as chief scientist, in an oceanographic cruise in the Red Sea in the framework of the *Boundary Currents and Marginal Seas and Red Sea Outflow Experiment (REDSOX)* projects (R/V MURICE EWING).

6. November 2004: Participation in an oceanographic cruise, as national observer, in the southern Aegean in the framework of the *Internal Wave Mixing Experiment in the Aegean Sea* project (R/V Oceanus).
7. March 2005: Coordination and participation, as chief scientist, in an oceanographic cruise in the Aegean Sea in the framework of the *Profiling Floats Observations in the Aegean Sea* project (R/V AEGAE0).
8. February 2006: Coordination and participation, as chief scientist, in an oceanographic cruise in the Aegean Sea in the framework of the *Profiling Floats Observations in the Aegean Sea* project (R/V AEGAE0).

## **B. EDUCATIONAL ACTIVITY**

### **B1. Course instructor**

#### **Undergraduate Courses:**

1. Physical Oceanography, Undergraduate course, Department of Physics, University of Athens
2. Fluid Dynamics, Undergraduate Course, Department of Physics, University of Athens

#### **Graduate Courses:**

3. Introduction to Physical Oceanography, Graduate Program in Oceanography and Marine Management, University of Athens
4. Dynamical Physical Oceanography, Graduate Program in Oceanography and Marine Management, University of Athens
5. Waves and Tides, Graduate Program in Oceanography and Marine Management, University of Athens
6. Air-Sea Interactions, Graduate Program in Oceanography and Marine Management, University of Athens
7. Numerical Modeling in Physical Oceanography, Graduate Program in Oceanography and Marine Management, University of Athens
8. Operational Oceanography, Graduate Program in Oceanography and Marine Management, University of Athens
9. Dynamics of Atmospheres and Oceans, Graduate Program in Marine Technology and Science, National Technical University of Athens
10. Data Analysis Methods, Graduate Program in Environmental Physics, University of Athens
11. Physical Oceanography, Graduate Program in Environmental Physics, University of Athens
12. Geophysical Fluid Dynamics, Graduate Program in Environmental Physics, University of Athens
13. Air-Sea-Land Interactions, Graduate Program in Environmental Physics, University of Athens
14. Numerical Modeling in Physical Oceanography, Graduate Program in Informatics, University of Athens

### **B2. Graduate Student Supervision**

Participation in 23 **PhD committees** (in 4 as advisor) in 8 universities.

Participation in 40 **MSc committees** (in 33 as advisor).

Supervision of more than 30 **undergraduate theses**.

## **C. OTHER ACTIVITIES**

### **C.1 Administrative bodies**

Member of the University of Athens Senate, Member of the Department of Physics Assembly, Member of the Interdepartmental Committee of the Graduate Program in Oceanography and Marine Management: 2009-today, Member of the Interdepartmental Committee of the Graduate Program in Nautical and Marine Technology and Science, National Technical University of Athens: 2015-today

## **C.2 International and national bodies**

Member of the Science Steering Committee and Operational Advisory Group of the Mediterranean Operational Oceanography Network (MOON), the EuroGOOS Task Team for the Mediterranean Sea: 2005 - 2012

Member of the General assembly of the Mediterranean Operational Network for the Global Ocean Observing System (MONGOOS): 2012-today

Member of the Board of the Greek Oceanographic Union: 2010 - 2012

Associate representative of Greece at the European Federation of Marine Science and Technology Societies (EFMS): 2010 - 2012

## **C3. Member of Unions**

American Geophysical Union (AGU), European Geophysical Union (EGU), CIESM (Commission Internationale pour l'Exploration Scientifique de la mer Méditerranée)

## **C4. Honors**

1995 – 1996 Rosenstiel Fellow, University of Miami, USA