

CURRICULUM VITAE

Personal Data:

Name: Anneta Mantziafou
Current occupation: Research Scientist, Ocean Physics and Modelling Group,
Department of Environmental Physics and Meteorology,
Faculty of Physics, University of Athens, Greece.
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Employment

January 2006 - today: Research Associate, Ocean Physics and Modelling Group, Department of Environmental Physics and Meteorology, Faculty of Physics, University of Athens (Greece) and Institute of Accelerating Systems and Applications, Athens (Greece) (affiliated with the Univ. Athens and National Technical University of Athens).

March 1995 - December 2005: Research Assistant, Ocean Physics and Modelling Group, Department of Environmental Physics and Meteorology, Faculty of Physics, University of Athens (Greece) and Institute of Accelerating Systems and Applications, Athens (Greece) (affiliated with the Univ. Athens and National Technical University of Athens).

Academic Studies:

2005, Ph.D. in Physical Oceanography, University of Athens
1997, M.Sc. in Oceanography, University of Athens
1994, B. Sc. in Physics, University of Athens

Languages (common European reference level):

English: C2

French: B2

German: B1

Computational Skills

- MS Windows
- Unix, Linux
- Fortran, Matlab

Membership in International Executive Bodies and Professional Associations

- Member of the European Geophysical Union (EGU).
- Member of CIESM (Commission Internationale pour l'Exploration Scientifique de la mer Méditerranée).
- Member of the Hellenic Oceanographers Association (HOA).

Training

8-10 October, 2002: *"Aegean Sea Workshop"*, held at the HCMR Hydrological Station of Rhodes (Greece), sponsored by the U.S. Office of Naval Research.

5-16 August, 2002: *"NATO Advanced Study Institute on "The Ocean Carbon Cycle and Climate"*, held at the Middle Technical Institute in Ankara, Turkey, funded by NATO.

21-25 September, 1998: *"International Workshop on the Oceanography of the Adriatic Sea"*, Trieste Italy, sponsored by the Abdus Salam International Center of Theoretical Physics (Trieste Italy) and co-sponsored by the Office of Naval Research (USA and UK) and the Observatorio Geofisico Sperimentale (Trieste, Italy).

21-27 July, 1997: *"Advanced Study Course on Ocean Forecasting"*, sponsored by MAST (Marine Science and Technology Programme of EU) held at International Marine Center, Torregrade, Sardinia, Italy.

7-25 April 1997: *"Course on Swallow water and Shelf sea dynamics"*, Trieste Italy, sponsored by the Abdus Salam International Center of Theoretical Physics (Trieste Italy) and co-sponsored by the Consiglio Nazionale delle Ricerche (CNR, Italy) and by the Kuwait Foundation for the Advancement of Science (KFAS).

Research interests

- Oceanic general circulation with emphasis on semi-enclosed basin dynamics and water masses formation processes.
- Operational oceanography with emphasis on numerical methods, forecasting systems and ocean forecasting validation techniques.
- Statistical analysis of spatio-temporal oceanic variability.
- Air-sea interaction at various time scales (synoptic to climatic).

Research experience

A. Field research

28 February – 8 March 2006: *DART6A Experiment (Dynamics of the Adriatic in Real Time)*, R/V Alliance, Financed by NURC (NATO Undersea Research Center).

4-19 August 2001: *Red Sea Experiment*, R/V Maurice Ewing, Cruise EW0109, University of Miami's Rosenstiel School of Marine and Atmospheric Science. The purpose of the experiment was to monitor the summer time circulation and hydrography of the Red Sea. Finance by the Office of Naval Research (ONR).

B. Participation in research projects

2014-2015: MyOcean, Follow on , Marine Core Service, Funded by EU

2012-2014: MyOcean2, Marine Core Service, Funded by EU

2012–2014: ARSOCEANS: Production of modeling tools for the prognosis of ocean dynamics (implementation in the Adriatic Sea). Funded by Slovenian Environmental Agency, Ministry of Agriculture and Environment, Slovenia.

2010-2012: PARALLEL: Development of the Integrated Parallel Cyprus Coastal Forecasting System (Funded by Research Promotion Foundation CYPRUS)

2009-2012: MyOcean, Marine Core Service, Funded by EU (FP7 Collaborative Project MyOcean_CA_18122008).

2007-2010: ECOOP-European Coastal sea Operational observing and Forecasting system, Funded by EU (FP6 Integrated Project 036355_IP_20060921).

2006-2008: DIAVLOS – Development and adaptation of operational crisis management tools for oil spill monitoring in the Burgas - Alexandroupolis oil pipe system (NE. Aegean Sea) (AM0-16 Measure 2.1)

2004-2007: PYTHAGORAS II – Register of Greek seas primary productivity and development of a management tool for the prevention from eutrophication phenomena, funded by the Greek Ministry of Education and EU (EPEAEK, Action 2.6)

2004-2007: PYTHAGORAS II - Numerical model study on the possibility of eutrophication phenomena in coastal areas affected by rivers, funded by the Greek Ministry of Education and EU (EPEAEK, Action 2.6)

2005-2006: IASON - International Action for Sustainability of the Mediterranean and Black Sea Environment - Funded by EU, (FP6, SSA No. 515234).

2003-2006: MFSTEP-Mediterranean Forecasting System Towards Environmental Prediction: Funded by EU (FP6, EVK3-CT-2002-00075).

1998-2001: Mediterranean Forecasting System Pilot Project (MFSPP), Funded by EU (FP5 - MAS3-PL97-1608).

1995-2001: Greek Participation in the “Mediterranean Action Plan (MAP)”, Regional Seas Program of UNEP for the protection of the Mediterranean Sea, Funded by the Greek Ministry of Environment.

Teaching experience

2000-2006 & 2009-2010 & 2011-15: Laboratory courses on ‘Mechanics’, Under-graduate program in Physics, University of Athens.

2001-2010 & 2011-15: Laboratory courses on ‘Atmospheric Physics’, Under-graduate program in Physics, University of Athens.

2002-2010 & 2011-15: Laboratory courses on ‘Thermodynamics’, Under-graduate program in Physics, University of Athens Physics Department.

2003-2007 & 2012-15: Laboratory courses on ‘Wave and optical Physics’, Under-graduate program in Physics, University of Athens Physics Department.

2015-2015: Laboratory Courses on “C programming language”, Under-graduate program in Physics, University of Athens Physics Department.

2004-2010 & 2012-15: Co-teaching of the module “Ocean-Atmosphere interactions” Graduate Program in “Environmental Physics” at the University of Athens (Tutors Lecturer: S. Sofianos, Professor: K. Helmis).

2009-2013: Co-teaching of the module “Statistical analysis of Oceanographic Databases”, Graduate Program in “Oceanography and Marine Management”, University of Athens (Tutor in charge Assistant Professor H. Floca).

2009-2015: Co-teaching of the module “Statistical analysis of Geophysical Fields”, Graduate Program in “Oceanography and Marine Management”, University of Athens (Tutors Professor: K. Helmis, Associate Professor M. Tombrou).

2001-2015: Participation in the supervision of 8 MSc students’ of the graduate programs in i) Oceanography and Marine Environmental Management and ii) Environmental Physics and Meteorology, University of Athens and 10 undergraduate students’ dissertations.

Journal Reviewer

- Ocean Science
- Deep Sea Research

Publications

A. Theses- dissertations

2002:2006: Ph.d dissertation with the title: “*A numerical study of the Adriatic deep water formation and spreading.*” Supervisor: Assistant Professor A. Lascaratos (Ocean Physics and Modelling Group).

1996-1997: Master thesis with the title: “*A Numerical Scheme for the study of intermediate and deep water formation and spreading, with the use of a passive tracer.*” Supervisor: Assistant Professor A. Lascaratos (Ocean Physics and Modelling Group).

1992-1993: Undergraduate thesis with the title: “*Calculation and study of the Aegean sea surface heat fluxes.*” Supervisor: Assistant Professor A. Lascaratos (Ocean Physics and Modelling Group).

B. Publications in peer reviewed journals and books

1. Georgiou S., A. Mantziafou, S. Sofianos, I. Gertman, E. Ozsoy, S. Somot and V. Vervatis, 2015: ***“Climate Variability and Deep Water Mass Characteristics in the Aegean Sea”***, Journal of Atmospheric Research Vol.152, January 2015, pp.146-158.
2. 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) Editors : Borzeli, G.E., Gacic L., Lionello P., Malanotte-Rizzoli P.
3. Sofianos, S., V. Vervatis, N. Skliris, S. Somot , A. Lascaratos, and A. Mantziafou, 2013: ***“Climate Variability and Water Mass Formation in the Eastern Mediterranean Sea”*** Advances in Meteorology, Climatology and Atmospheric Physics, Springer Atmospheric Sciences, 2013, Part 2, 729-735, DOI: 10.1007/978-3-642-29172-2_103
4. M. Tonani, 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.
5. Sofianos, S., Zafirakou-Koulouris A., C. Koutitas, , 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.
6. Skliris, N., Sofianos, S., Gkanasos, A., Axaopoulos P., Mantziafou, A., Vervatis V., 2011: ***“Long-term sea surface temperature variability in the Aegean Sea”***. Advances in Oceanography and Limnology. Vol.2, No.2, December 2011, 125 – 139.
7. 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.
8. Skliris, N., Mantziafou, A., Sofianos, S., Gkanasos, A., 2010: ***“Satellite-derived variability of the Aegean Sea ecohydrodynamics”***, Continental Shelf Research 30 (2010) pp. 403–418.

9. Tzali, M., Sofianos, S., Mantziafou A., Skliris, N. , 2010: “**Modelling the impact of Black Sea Water inflow on the North Aegean Sea hydrodynamics**”, *Ocean Dynamics*, vol 60, No 3 / June 2010, pp 585-596 .
10. Mantziafou, A., Lascaratos, A., 2008: “**Deep-water formation in the Adriatic Sea: Inter-annual simulations for the years 1979-1999**”, *Deep Sea Research I*, Vol.55, 11, pp. 1403-1427.
11. Sofianos, S.S., Skliris N., Mantziafou A., Lascaratos, A., Zodiatis, G., Lardner, Hayes, D., Georgiou, G., 2006: “**Nesting operational forecasting models in the Eastern Mediterranean: active and slave mode**”. *Ocean Science Discussions*, 3: pp. 1225-1254.
12. Mantziafou, A. Lascaratos, A., 2004: “**An eddy resolving numerical study of the general circulation and deep water formation in the Adriatic Sea**”, *Deep Sea Research I*, 51 (2004), pp. 921-952.
13. Gacic, M., Lascaratos, A., Manca, B., and Mantziafou, A. 2002: “**Adriatic deep water and interaction with the Eastern Mediterranean Sea**”, in: *Physical Oceanography of the Adriatic Sea. Past, Present and Future*, edited by: Cushman-Roisin, B., Gacic, M., Poulain, P.-M., and Artegiani, A., Kluwer Academic Publishers, 111–142 (Chapter 4), 2002.

C. Publications in proceedings of international conferences

1. Matjaz Licer, Peter Smerkol, Anja Fettich, Michalis Ravdas, Alexandros Papapostolou, Annetta Mantziafou, Jure Cedilnik, Benedikt Strajnar, Maja Jeromel, Neva Pristov, Jure Jerman , Saso Petan, Vlado Malacic, and Sarantis Sofianos 2015 : ***Ocean Dynamics Simulation during an Extreme Bora Event using a Two-Way Coupled Atmosphere-Ocean Modeling System***, European Geosciences Union General Assembly 2015 Vol. 17, EGU2015-1924-3, 2015
2. S. Sofianos, V. Vervatis, A. Mantziafou, M. Ravdas 2014 : ***Investigating deep-water formation variability in the Aegean sea and its influence in the adjacent basins deep circulation***. MEDCLIVAR 2014 Conference, Understanding Climate Evolution and Effects on Environment and Societies in the Old World region – Ankara Turkey 23-25 June 2014.
3. Mavropoulou, A.M., Sofianos, S., Mantziafou, A., Jarosz, E. 2014: ***The influence of Black SeaWater inflow and its synoptic time-scale variability in the North Aegean Sea hydrodynamics***. EGU2014-6612, 2014, EGU European Geosciences Union General Assembly 2014, Vienna | Austria | 27 April – 02 May 2014

4. Ravdas, M, Sofianos, S., Mantziafou, A. Vervatis, V. 2013: ***The Dynamics of the Ionian Sea and its climatic implication: Interannual simulation for the period 1960-2000*** EGU2013-4909 (oral), EGU European Geosciences Union General Assembly 2013, Vienna | Austria | 07 – 12 April 2013

5. Özsoy , E., S. Sofianos, I. Gertman, A. Mantziafou, A. Aydogdu, S.Georgiou, E. Tutsak, A. Lascaratos, A.Hecht , M. A. Latif , 2013: ***Deep-water variability and inter-basin interactions in the Eastern Mediterranean Sea***, EGU2013-3990 (poster) EGU European Geosciences Union General Assembly 2013, Vienna | Austria | 07 – 12 April 2013

6. Ozsoy E. S. Sofianos, I. Gertman, A. Mantziafou, A. Aydoğdu, V. Vervatis, E. Tutsak, A. Lascaratos and M. A. Latif, 2012 ***“Deep-water variability in the Eastern Mediterranean Sea and inter-basin interactions”*** MedCLIVAR 2012 Conference Madrid 26-29 September 2012.

7. Varotsou E. Sofianos S., Mantziafou A. 2012: ***“Variability of the Aegean and Levantine surface dynamic characteristics”*** 10th Symposium of Oceanography and Fisheries, 7-11 May 2012, Athens.

8. Lascaratos A., Sofianos S., Skliris N., Mantziafou A. 2011: ***“Eastern Mediterranean: General Circulation and Interannual variability”*** Workshop: “Variability of the Eastern and Western Mediterranean Circulation and Thermohaline Properties: Similarities and Differences”, Rome (Italy) 7-9 November 2011.

9. S. Sofianos, N. Skliris, A. Mantziafou, V. Vervatis, A. Lascartos, A. Theocharis 2011: ***“The sensitivity of the Aegean-Levantine thermohaline circulation, derived from recent observations and models”*** Workshop: “Variability of the Eastern and Western Mediterranean Circulation and Thermohaline Properties: Similarities and Differences”, Rome (Italy) 7-9 November 2011.

10. Skliris N., Mantziafou A., Sofianos S., Gkanasos A., Lascaratos A., 2010: ***“Sea Surface Temperature and Chlorophyll non-seasonal variability in the Aegean Sea by means of EOF analysis of satellite data”*** , Rapp. Comm. Int. Mer Medit., 39, p.184.

11. Skliris, N., Mantziafou, A., Sofianos, S., Gkanasos, A., Axaopoulos P., Vervatis V. 2010 : ***“Satellite-derived long-term variability of sea surface temperature in the Mediterranean Sea”***, Vol. 12, EGU2010-6448, EGU General Assembly 2010, Vienna, Austria.

12. 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.

13. Tzali M., Sofianos S., Kallos G., Mantziafou A., Zafeirakou A., Dermisis V., Koutitas Ch.,

- Zervakis V., 2010: ***“Oil-spill dispersion forecasting System for the region of installation of the Burgas-Alexandroupolis pipeline outlet (N.E. Aegean) in the framework of “DIAVLOS” project”***, AIP Conf. Proc. Vol. 1203, pp. 1037-1041, January 2010.
14. Zafirakou-Koulouris A., Koutitas Ch., Sarantis S., Mantziafou A., Tzali M., Dermisis V., Dermissi S. 2009: ***“Modelling the evolution and fate of an oil slick with a 3-d simulation model”***, 3rd IC-EpsMso (International Conference on Experiments/ Process/System Modelling / Simulation / Optimisation) Athens, Greece 8-11 July 2009.
 15. Zodiatis, G., S. Sofianos, N. Skliris, A. Mantziafou, A. Lascaratos, R. Lardner, D. Hayes and G. Georgiou, 2009: ***“Evaluating nesting procedures in ocean operational forecasting in the Eastern Mediterranean”***, International Conference on Fluxes and Structures in Fluids: Physics of Geospheres, Abstracts, Vol.1, 247-250, Moscow, 24-27 June.
 16. Skliris, N., Mantziafou, A., Sofianos, S., Gkanasos, A., Vervatis, V. 2009: ***“Variability of sea surface temperature and chlorophyll in the Aegean Sea from satellite measurements”***, Vol. 11, EGU2009-4875, EGU General Assembly 2009, Vienna, Austria.
 17. Tzali M., Sofianos S., Mantziafou A., Vervatis V., 2009: ***“Impact of the Black Sea Water on the circulation of the north Aegean Sea”***, 9th Symposium of Oceanography and Fisheries, May 2009, Patra, Greece.
 18. Gkanasos A., Skliris, N., Mantziafou, A., Sofianos, S., 2009 : ***“Satellite – derived seasonal variability of sea-surface temperature and chlorophyll in the Aegean Sea”***, 9th Hellenic Symposium of Oceanography and Fisheries, May 2009, Patra, Greece.
 19. Skliris, N., Mantziafou, A., Sofianos, S., Lascaratos, A., Keramitsoglou, I., Vlahopoulos, G., Cartalis, C., Paraskevopoulou, V., Scoullou, M., 2008: ***“A study of the plankton ecosystem of the Aegean Sea using Seawifs data and a 3D coupled hydrodynamic/biological model”***, Vol. 10, EGU2008-A-03857, EGU General Assembly 2008, Vienna, Austria.
 20. Skliris, N., Sofianos, S., Mantziafou, A., Lascaratos, A. 2007: ***“Ocean forecasting in the Eastern Mediterranean The ALERMO system”***, Rapp. Comm. Int. Mer Medit. Vol. 38, p. 198.
 21. Skliris, N., Mantziafou, A., Sofianos, S., Vervatis, V., Lascaratos, A., Keramitsoglou, I., Vlahopoulos, G., Adaktilou, N., Cartalis C. 2007: ***“Modelling the ecohydrodynamics of the Aegean Sea”***, Vol. 9, EGU2007-06481, EGU General Assembly 2007, Vienna, Austria.

22. Skliris, N., Sofianos, S., Mantziafou, A., Keramitsoglou, I., Adaktilou, N., Kartalis, K., Lascaratos, A., 2006: "**Modeling of the plankton ecosystem of the Aegean Sea in relation to mixed layer dynamics**", 8th Hellenic Symposium of Oceanography and Fisheries, June 2006, Thessaloniki, Greece.
23. Skliris, N., Sofianos, S., Mantziafou, A., Vervatis, V., Lascaratos, A. 2006: "**Ocean forecasting in the Eastern Mediterranean with the MFS-ALERMO system**", 8th Hellenic Symposium of Oceanography and Fisheries, June 2006, Thessaloniki, Greece.
24. Mantziafou, A. Lascaratos, 2004: "**Deep - water formation processes in the Adriatic sea: Simulations of the inter-annual variability**", Rapp. Comm. Int. Mer Medit., 37, p.123.
25. Mantziafou, A., Lascaratos, A., 2000 : "**A numerical study of the interannual variability of the deep water formation process in the Adriatic Sea from 1984-1994**", European Geophysical Society –XXV General Assembly, April 2000, Nice France.
26. Mantziafou, A., Lascaratos, A., 2000: "**A high resolution numerical study of the deep water formation processes in the Adriatic sea**", 6th Hellenic Symposium of Oceanography and Fisheries, May 2000, Chios, Greece.
27. Mantziafou, A., Lascaratos, A., 1998: "**An eddy resolving numerical study of the general circulation and deep water formation in the Adriatic Sea**", International Workshop on the Oceanography of the Adriatic Sea, Abdus Salam *International Centre for Theoretical Physics (ICTP)*, September 1998, Trieste, Italy.