

## PERSONAL INFORMATION



## SYLVIA CHRISTODOULAKI

 HELLENIC CENTRE FOR MARINE RESEARCH (HCMR) Thalassocosmos  
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 Skype: sylvia.christodoulaki

Sex F | Nationality Greek

## PROPOSED POSITION

Key Personnel

## WORK EXPERIENCE

From 2012 to onwards

**Post-Doc researcher**

Post-Doc researcher, Institute of Oceanography, Hellenic Center for Marine Research Thalassocosmos Gournes Pediados, P.O. Box 2214, HERAKLION CRETE, GR 71 003 GREECE

Research field: Project Management; Ecological modelling; Air – Sea interactions; Operational Oceanography

Participation in numerous EU and national projects related with operational oceanography

From 2004 to 2012

**Research Fellow**

Department of Chemistry Environmental and Chemical Processes Laboratory (ECPL), University of Crete

Research field: Ecological modelling; Air – Sea interactions; Operational Oceanography

Participation in numerous EU projects related with operational oceanography

From 2003 to 2004

**Research Fellow**

Department of Environmental Sciences, University of Thessaly

Research Field: Organization of the Monitoring Measurement Database of Surface and Groundwater Assessment and Land Reclamation of Thessaly

## EDUCATION AND TRAINING

from 2007 to 2011

**PhD in Chemistry**

Department of Chemistry, University of Crete, Greece

PhD Thesis: Christodoulaki, S., 2011. "ASSESSING THE IMPORTANCE OF NITROGEN AND PHOSPHORUS ATMOSPHERIC DEPOSITION ON THE EASTERN MEDITERRANEAN'S SEA BIOGEOCHEMISTRY (A MODELING STUDY)", University of Crete, Department of Chemistry Environmental and Chemical Processes Laboratory (ECPL), pages 240.

from 2004 to 2007

**MSc in Environmental Engineering**

Department of Chemistry, University of Crete, Greece

Grade 8.92/10

MSc Thesis: Christodoulaki, S., 2007. "IMPACT OF ATMOSPHERIC DEPOSITION OF NITROGEN AND PHOSPHOROUS ON THE OCEAN PRODUCTIVITY IN THE CRETAN SEA: A 1-D MODELLING STUDY", University of Crete, Department of Chemistry Environmental and Chemical Processes Laboratory (ECPL), pages 120.

from 1998 to 2003

**BSc in Environmental Sciences**

Department of Environmental Sciences, University of Thessaly, Greece

Grade 7.73/10

BSc Thesis: Christodoulaki, S., 2003. "SUSTAINABLE WATER RESOURCES MANAGEMENT IN HERAKLION WATERSHEDS, CRETE", University of Thessaly Department of Environmental Sciences, pages 385.

PERSONAL SKILLS

Mother tongue (s) Greek

Other Language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken Interaction	Spoken production	
ENGLISH	C2	C2	C2	C2	C2
Michigan State University – Certificate of English Language Proficiency (MSU – CELP)					
ITALIAN	C2	C2	C2	C2	C1
CELI-4 Università per Stranieri di Perugia					
C1/C2: Proficient User					

Communication skills Advanced communication skills gained through my participation in numerous European and National projects.

Organisational / managerial skills Highly good organizational and management skills through my participation in research projects (especially in the ADAMANT research program over 4 years) as a member of the management / coordinating team but also as a member of the project results dissemination team as well as in conference / conference workshops eg ESA-ATMOS 2015.

Computer skills Geographic Information System software eg. ArcInfo, ArcView GIS (plus extensions)  
 Programming languages: FORTRAN  
 Operating systems: LINUX, UNIX, MS Windows

Additional training Training Certificate (e-learning) in "EUROPEAN PROJECT DESIGN AND MANAGEMENT" National and Kapodistrian University of Athens (NTUA) 5.42 ECVET

Scholarships Summer School "Analysis of end to end food webs and Biogeochemical Cycles... Training for young marine scientists" at Middle Eastern Technical University, Ankara Turkey, August 2008

RDA EU 3 Early Scientists Career Support program Scholarship for my participation at the «International Data Week» Denver (CO), United States, September 2016

Master Degree Scholarship, State Scholarships Foundation (IKY) 2005 – 2006

ADDITIONAL INFORMATION

Publications

Publications in International Journals

Petihakis G., Perivoliotis L., Korres G., Ballas D., Frangoulis C., Pagonis P., Ntoumas M., Pettas M., Chalkiopoulos A., Sotiropoulou M., Bekiari M., Kalampokis A., Ravdas M., Bourma E., Christodoulaki S., Zacharioudaki A., Kassis D., Potiris E., Triantafyllou G., Tsiaras K., Krasakopoulou E., Velanas S., Zisis N., 2018. An integrated open-coastal biogeochemistry, ecosystem and biodiversity observatory of the Eastern Mediterranean. The Cretan Sea component of POSEIDON system. Ocean Science Discussions DOI: 10.5194/os-2018-3

Pitta P., Kanakidou M., Mihalopoulos N., Christodoulaki S., Dimitriou P. D., Frangoulis C., Giannakourou A., Kagiorgi M., Lagaria A., Nikolaou P., Papageorgiou N., Psarra S., Santi I., Tsapakis M., Tsiola A., Violaki K., Petihakis G., 2016. Saharan dust deposition effects on the biological productivity of the Eastern Mediterranean: A food web study based on a mesocosm experiment. Frontiers in Marine Science, section Marine Ecosystem Ecology, doi: 10.3389/fmars.2017.00117

Tsiaras K., S. Christodoulaki, G. Petihakis, C. Frangloulis, G. Triantafyllou, 2016. "Model simulations of a mesocosm experiment investigating the response of a low nutrient low chlorophyll (LNLC) marine ecosystem to atmospheric deposition events". *Frontiers in Marine Science*, section Marine Ecosystem Ecology, doi: 10.3389/fmars.2017.00120

Christodoulaki S., G. Petihakis, N. Mihalopoulos, K. Tsiaras, G. Triantafyllou, M. Kanakidou, 2016. "Human – driven atmospheric deposition of N & P controls on the East Mediterranean marine ecosystem." *Journal of Atmospheric Sciences*, doi: 10.1175/JAS-D-15-0241.1.

Im U., Christodoulaki S., Violaki K., Zampas P., Kocak M., Mihalopoulos N. and Kanakidou M., 2013. "Atmospheric deposition of nitrogen and sulfur over Europe with focus on the Mediterranean and Black Sea". *Atmospheric Environment*, doi: 10.1016/j.atmosenv.2013.09.048

Christodoulaki S., G. Petihakis, M. Kanakidou, N. Mihalopoulos, K. Tsiaras, G. Triantafyllou, 2013. "Atmospheric deposition in The Eastern Mediterranean. A driving force for ecosystem dynamics". *Journal of Marine Systems*, doi: 10.1016/j.jmarsys.2012.07.007

#### Publications in Proceedings of international conferences (full paper reviewed)

Christodoulaki S., Petihakis G., Triantafyllou Tsiaras K., Kouvarakis G., Mihalopoulos N. and Kanakidou M., 2015. "Historical and future anthropogenic atmospheric deposition controls on the Eastern Mediterranean marine ecosystem (in greek)". 11th Panhellenic Symposium of Oceanography & Fisheries « Aquatic Horizons: Challenges & Perspectives », 13-17 May 2015, Mytilene, Lesvos island, Greece, pp 337 – 340, ISBN: 978-960-9798-08-2

Christodoulaki S., Petihakis G., Triantafyllou G., Pitta P., Psarra S., Papadimitriou V., Tsiaras K., Kouvarakis G., Mihalopoulos N. and Kanakidou M., 2015. "Atmospheric Deposition And Mediterranean sea water productivity (Thales – ADAMANT) An overview (in greek)". 11th Panhellenic Symposium of Oceanography & Fisheries « Aquatic Horizons: Challenges & Perspectives », 13-17 May 2015, Mytilene, Lesvos island, Greece, pp 333 – 336, ISBN: 978-960-9798-08-2

Christodoulaki S., Petihakis G., Tsiaras K., Triantafyllou G., Mihalopoulos N. and Kanakidou M., 2014. "Modeling the East Mediterranean marine ecosystem response to the atmospheric deposition nutrient fluxes". COMECAP 2014 - 12th International Conference of Meteorology, Climatology and Physics of the Atmosphere, Heraklion, Crete, 28 - 31 May 2014, Vol. 1, pp. 180 - 185, ISBN 978-960-524-430-9

Christodoulaki S., Petihakis G., Tsiaras K., Triantafyllou G., Mihalopoulos N. and M. Kanakidou, 2014: Atmospheric nutrient supply impact on the planktonic community of a Low Nutrient Low Chlorophyll marine ecosystem (1-D Modeling study). Operational Oceanography for Sustainable Blue Growth, 7th EuroGOOS Conference, 28 - 30 October, 2014, Lisbon, Portugal

Christodoulaki, S., A. Loukas, L. Vasiliades and N.R. Dalezios, 2003. "Water balance modeling using digital GIS data." International Symposium on GIS and Remote Sensing: Environmental Applications, 7-9 November 2003, Volos, Greece, pp. 249-260.

Christodoulaki, S., A. Loukas, L. Vasiliades, and N.R. Dalezios, 2004. "Analysis of water balances and demands in Heraklion Watersheds, Crete." Electronic Proceedings of the 7th International Conference of Protection and Restoration of the Environment, Mykonos, 28 June - 2 July 2004, 9pp. (in CD-ROM).

#### Publications in Conference abstracts with reviewers

Christodoulaki S., 2016. "Ocean – Atmosphere coupling: common framework for data management on a global scale". RDA 8th plenary meeting, 14 – 17 September 2016, Denver (CO) U.S.

Christodoulaki S., Petihakis G., Mihalopoulos N., Tsiaras K., Triantafyllou G. and Kanakidou M., 2016. "Human – driven atmospheric deposition of N & P controls on the East Mediterranean marine ecosystem". European Geophysical Union (EGU) 2016 General Assembly, 18 April - 22 May, Vienna, Austria.

Christodoulaki S., Petihakis G., Triantafyllou G., Pitta P., Papadimitriou V., Tsiaras K., Mihalopoulos N., Kanakidou M., 2015. "Atmospheric Deposition And Mediterranean sea water productivity (Thales – ADAMANT) An overview ". European Geophysical Union (EGU) 2015 General Assembly, 12 – 17 April 2015, Vienna, Austria.

Christodoulaki S., Petihakis G., Triantafyllou G., Tsiaras K., Mihalopoulos N., Kanakidou M., 2015. "Atmospheric Deposition And Mediterranean sea water productivity (Thales – ADAMANT) An overview ". Aquatic Sciences Meeting 2015, Aquatic sciences: Global and regional perspectives — north meets south, 22-27 February 2015, Granada, Spain.

Christodoulaki S., Petihakis G., Tsiaras K., Triantafyllou G., Mihalopoulos N. and Kanakidou M., 2014. "East Mediterranean marine ecosystem response to the episodic atmospheric deposition nutrient fluxes (1-D Modeling study)". Earth Observation for Ocean-Atmosphere Interactions Science 2014 workshop, 28 - 31 October, 2014, Frascati (Rome), Italy.

Christodoulaki S., Petihakis G., Tsiaras K., Triantafyllou G., Kanakidou M. and Mihalopoulos N., 2014. "Modeling the impact of intense atmospheric deposition events on the East Mediterranean marine ecosystem." Dust 2014 - International Conference on Atmospheric Dust, 01 - 06 June, 2014, Castellana Marina, Italy.

Christodoulaki S., Petihakis G., Tsiaras K., Triantafyllou G., Mihalopoulos N. and Kanakidou M., 2014. "Simulations of the impact of high pulse atmospheric deposition events on a low nutrient low chlorophyll (LNLC) marine ecosystem". European Geophysical Union (EGU) 2014 General Assembly, 27 April - 2 May, Vienna, Austria.

Christodoulaki S., Petihakis G., Mihalopoulos N. and M. Kanakidou, 2013: Atmospheric deposition controls on the east Mediterranean marine ecosystem. MARBIGEN International Conference on the Mediterranean Marine Biodiversity in view of climatic change and the invasion of alien species, 7-9 October 2013, Iraklion, Crete, Greece.

Im U., Violaki K., Zampas P., Christodoulaki S., Kocak M., Mihalopoulos N. and Kanakidou M., 2013. "Atmospheric nitrogen deposition over the Mediterranean, Black Sea and Europe as simulated by the WRF-CMAQ model system". European Geophysical Union (EGU) 2013 General Assembly, 7- 12 April, Vienna, Austria.

Christodoulaki S., Petihakis G., Mihalopoulos N., Kanakidou M., 2013. "Atmospheric deposition controls on the East Mediterranean marine ecosystem." American Meteorological Society (AMS) Annual meeting, Austin, Texas, USA, 6-10 January 2013.

Christodoulaki S., Tsiaras, K., Petihakis G., Mihalopoulos N., Kanakidou M. and G. Triantafyllou, "Assessing the importance of atmospheric deposition on the Eastern Mediterranean Sea biogeochemistry". The GEOTRACES Mediterranean Planning Workshop, Barcelona, Spain, 14-17 November 2011.

Christodoulaki S., Tsiaras, K., Petihakis G., Mihalopoulos N., Kanakidou M. and G. Triantafyllou, "Evaluating the importance of atmospheric deposition of nitrogen on the marine ecosystem in the East Mediterranean". Air Quality and Climate Change: Interactions and Feedbacks, ACCENT-Plus Symposium, Urbino, Italy, 13 -16 September 2011.

Christodoulaki S., G. Petihakis, K. Tsiaras, N. Mihalopoulos, M. Kanakidou, G. Triantafyllou, "Atmospheric Deposition in the East Mediterranean: A driving force for ecosystem dynamics". Presented at the SESAME Final General Assembly, Athens, Greece, 8 April 2011.

Christodoulaki S., Tsiaras, K., Petihakis G., Mihalopoulos N., Kanakidou M. and G. Triantafyllou, 2010: Atmospheric and marine controls on the Non-Redfield N/P ratio in the Cretan Sea - a 1-D modeling study. The GEOTRACES Mediterranean Planning Workshop, 4-6 October 2010.

Christodoulaki S., G. Petihakis, N. Mihalopoulos, M. Kanakidou, "Importance of atmospheric deposition of nitrogen and phosphorus for the marine ecosystem of the Cretan Sea", Presented at the IAMAS/IAPSO/IACS 2009 Joint Assembly (MOCA-09), Montreal, July 2009.

Christodoulaki S., G. Petihakis, N. Mihalopoulos, M. Kanakidou, "The impact of the atmospheric nitrogen and phosphorus deposition on the marine primary production in the Cretan sea (E. Mediterranean)". Presented at the 3rd SESAME General Assembly, Palma de Mallorca, Spain, 17 - 18 November 2008.

Christodoulaki S., G. Petihakis, N. Mihalopoulos, M. Kanakidou, "Impact of atmospheric deposition on the nitrogen budget and the ocean productivity in the Cretan Sea", Presented at the E2E: Analysis of end to end food webs and Biogeochemical Cycles. Ankara, August 2008.

Christodoulaki S., G. Petihakis, N. Mihalopoulos, M. Kanakidou, G. Triantafyllou, "Atmospheric deposition of nitrogen and phosphorus and the ocean productivity in the East Mediterranean", Surface Ocean Lower Atmosphere Study (SOLAS) Conference, Xiamen, China, 6-9 March 2007

Christodoulaki S., G. Petihakis, N. Mihalopoulos, M. Kanakidou, G. Triantafyllou, "Impact of atmospheric deposition of nitrogen and phosphorus on the ocean productivity in the Cretan sea: A 1-d modelling study", Presented at the IUGG Conference, IAPSO PS001: Biogeochemical Budget and Cycles in the Mediterranean Sea, Perugia, July 2007.

Christodoulaki S., A. Loukas, L. Vasiliades, & N.R. Dalezios, "Analysis of Water Balances and Demands in Heraklio Watersheds, Crete", In Moutzouris C, Christodoulatos C, Dermatas D, Koutsospyros AD, Skanavis C, Stamou A (eds) Protection and Restoration of the Environment VII Electronic Proceedings of the 7th International Conference of Protection and Restoration of the Environment, 28 June - 2 July 2004, Mykonos, Greece.

Christodoulaki S., Loukas A, Vasiliades L, Dalezios N.R., "Water balance modeling using digital GIS data". GIS and remote sensing: environmental applications. 7-9 November 2003, Volos, Greece, pp. 249–260.

## Projects      Participation in scientific projects

2017 to present "EMSO-Link: Implementation of the Strategy to Ensure the EMSO ERIC's Long-term Sustainability", funded by the E.U. (H2020-INFRADEV-2016-2017)

2016 to 2017, "IMPLEMENTATION OF AN INTEGRATED MARINE MONITORING PROGRAMME" co-funded in 85% by the EEA GRANTS, 2009-2014, and 15% by the Public Investments Programme (PIP).

2012 to 2015, "ATMOSPHERIC DEPOSITION AND MEDITERANNEAN SEA WATER PRODUCTIVITY-ADAMANT". European Social Fund -ESF and Greek national funds through the Operational program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: Thales.

2012, PERSEUS Framework Program 7, Policy-Oriented Marine Environmental Research in the Southern European Seas,

2011, CITYZEN Framework Program 7, European Integrated project on megacities and emission hot spots,

2010, DARECLIMED EU FP7-INFRASTRUCTURES-2010-1,

2008 to 2009, SESAME EU/DG Research-FP6, Southern European Seas: Assessing and Modeling Ecosystem changes,

2008 to 2009, CIRCE Climate Change and Impact Research: the Mediterranean Environment,

2007, EUCAARI European Integrated project on Aerosol Cloud Climate and Air Quality Interactions

2002 to 2004, "Organization of the Monitoring Measurement Database of Surface and Groundwater Assessment and Land Reclamation Project of Thessaly, Prefecture of Thessaly, Department of Environmental Management and Natural Resources, University of Thessaly, Volos, Greece