






PERSONAL INFORMATION

Theodoros Nitis

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Sex Male | Date of birth 02/10/1969 | Nationality Greek

PERSONAL STATEMENT

Teaching Assistant in the Department of Marine Sciences, School of the Environment, University of the Aegean, Greece

WORK EXPERIENCE

01/05/1995–31/12/2001

**Scientific Researcher**

Aristotle University Thessaloniki, Dept. of Mechanical Engineering, Thessaloniki (Greece)

01/01/2002–Present

**College / university teaching professional**

Department of Marine Sciences, School of the Environment, University of the Aegean, Mytilene, Lesvos (Greece)

Teaching Assistant in Geographical Information Systems and Atmospheric Processes

EDUCATION AND TRAINING

**BSc degree**

University of the Aegean, School of the Environment, Department of Environment, Mytilene, Lesvos (Greece)

01/09/2017–Present

**MSc degree in Mathematics**

Hellenic Open University, Patras (Greece)

01/01/2012–14/07/2016

**Doctor of Philosophy (Ph.D.) degree**

Aristotle University Thessaloniki, Faculty of Engineering, School of Mechanical Engineering, Thessaloniki (Greece)

PERSONAL SKILLS

Mother tongue(s)

Greek

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Cambridge University: First Certificate in English (FCE) B2					

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
 Common European Framework of Reference for Languages

**Communication skills** Very good communication and contact skills with students gained through my experience as Teaching Assistant in the undergraduate and post graduate programme of the Dept. of Marine Sciences, School of the Environment, University of the Aegean, Lesvos, Greece. I teach Introduction to GIS, Applications of GIS, Geo-informatics, Mapping, Spatial analysis, Geostatistics, Calculus and Atmospheric Physics. All lectures include theoretical and practical part.

**Organisational / managerial skills** I have worked in many national and international research projects as researcher. I am key staff member in the Laboratory of Geographical Information Systems in the Dept. of Marine Sciences, School of the Environment, University of the Aegean, Lesvos, Greece.

**Job-related skills** As a researcher in the Dept. of Mechanical Engineering, Aristotle University Thessaloniki as well as teaching assistant in the Dept. of Marine Sciences, School of the Environment, University of the Aegean, Greece I have a wide range of scientific publications in the field of Meteorology, Atmospheric Physics and dynamics, Climatology and Climate Change, Air Pollution, Computational Modelling, Databases, Data Mining, GIS, mapping, remote sensing, marine spatial planning, environmental quality, risk assessment, and environmental monitoring. In addition, I have worked as reviewer for international scientific journals.

**Digital skills**

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

- Good Knowledge of:  
 Operating Systems: Windows, Linux  
 Commercial Software Packages: ArcGIS 10.xx, Erdas Imagine, Tecplot 360, Idrisi, CorelDraw  
 Programming Languages: FORTRAN, Arc Macro Language (AML), Python

**Other skills** I am also Beekeeper

**Driving licence** A, B1

**ADDITIONAL INFORMATION**

**Publications**

1. Badii Kh., Dabir B., Moussiopoulos N., Sahm P., Alaie S.M. and Nitis T., 2000, Wind field in Greater Tehran Area (GTA) in autumn season, *Journal of Thermal Science*, 9, 205-210.
2. Klaić Z.B. and Nitis T., 2001-2002, Application of mesoscale model (MEMO) to the greater Zagreb area during summertime anticyclonic weather conditions, *Geofizika*, 18-19, 31-43.
3. Klaić Z.B., Nitis, T., Kos, I. and Moussiopoulos, N., 2002, Modification of the local winds due to hypothetical urbanization of the Zagreb surroundings, *Meteorology and Atmospheric Physics*, 79, 1-12.
4. Nitis T., Kitsiou D, Klaić Z.B., Telišman Prtenjak M. and Moussiopoulos N., 2005, The effects of basic flow and topography on the development of the sea breeze over a complex coastal environment, *Quarterly Journal of the Royal Meteorological Society*, 131, 305-327.
5. Telišman Prtenjak M., Grisogono B. and Nitis T., 2006, Mesoscale characteristics of the wind field along the eastern coast of northern Adriatic, *Quarterly Journal of the Royal Meteorological Society*, 132, 2191-2215.
6. Telišman Prtenjak M., Jeričević A., Kraljevic Luksa H., Bulic I., Nitis T., Bencetic Klaić, Z., 2009, Exploring atmospheric boundary layer characteristics in a severe SO<sub>2</sub> episode in the north-eastern Adriatic, *Atmospheric Chemistry and Physics*, 9, 4467-4483.

7. Nitis T., Klaić Z. B., Kitsiou D. and Moussiopoulos N., 2010, Meteorological simulations with use of satellite data for assessing urban heat island under summertime anticyclonic conditions, *International Journal of Environment and Pollution*, 40(1/2/3), 123-135
8. Skouloudis A, Kassomenos P. and Nitis T., 2011, Science and policy challenges of atmospheric modelling in consideration of health effects, *International Journal of Environment and Pollution*, 44(1/2/3/4), 3-13.
9. Nitis T., Tsegas G. and Moussiopoulos N., 2017, Coastal atmospheric boundary layer response to sea surface temperature variation and complex topography in an eastern Mediterranean megacity, Under preparation.
10. Tsegas G., Nitis T., Kitsiou D. and Moussiopoulos N., 2017, Evaluation of a sea surface temperature data assimilation scheme in decade-long dynamical downscaling calculations of regional climate, Under preparation.

#### Conferences

1. Arvanitis T., Nitis T., Theodoridis G., Turlou P.M., Naneris C. and Moussiopoulos N. (1997), Synthesis of the 2004 emission inventory for Athens (N. Moussiopoulos and S. Papagrorgoriou Eds.), Proceedings of the International Scientific Workshop 'Athens 2004 Air Quality Study', Athens Bid Committee, Published by EnviroComp Institute, Fremont, California (USA), 18-19 February, pp. 60-68.
2. Nitis T. and Moussiopoulos N. (1999), An improved spatially and temporally resolved biogenic emission inventory for Thessaloniki, Greece, Proceedings of the European Geophysical Society XXIV General Assembly, The Hague, The Netherlands, 19-23 April (Geophysical Research Abstracts, Vol. 1).
3. Moussiopoulos N., Turlou P.M., Papalexioi S., Sahm P. and Nitis T. (1999), Analysing low-level wind shear phenomena in the area of the Ioannina airport using 3-D mathematical models, Proceedings of 3rd International Exhibition and Conference on Environmental Technology - HELECO 99 - (A. Andreadakis, C. Dagli, N. Kotsovinos Th. Lekkas, A. Liakopoulos and N. Moussiopoulos Eds.), Thessaloniki, Greece, 3-6 June, Vol. 1, pp. 520-528.
4. Karatzas K., Moussiopoulos N., Papalexioi S., Theodoridis G., Turlou P.M. and Nitis T. (1999), Development and Application of Tools for Smog Episode Forecasting and for management Decision Support in Urban Areas, (Moussiopoulos N., Ed.), SATURN Annual Report 1998, 161-162, International Scientific Secretariat, GSF-Forschungszentrum fuer Umwelt und Gesundheit GmbH, München, September 1999.
5. Moussiopoulos N., Turlou P.M., Nitis T., Sahm P. and Yamamoto Y. (2000), Impact of advanced vehicle technology on urban air quality in Europe: Application of the EZM to Athens, Proceedings of the 9th International Symposium on Transport and Air Pollution, Avignon, France, 5-8 June, pp. 87-94.
6. Moussiopoulos N., Turlou P.M., Nitis T., Sahm P. and Papalexioi S. (2000), Assessing ozone exposure for alternative emission scenarios: Multi-month applications of the EZM to Athens (V.A. Tsihrintzis et al., Eds.), Proceedings of the 5th Conference on the Protection and Restoration of the Environment, Thassos, Greece, 3-6 July, Vol. 2, pp. 905-912.
7. Moussiopoulos N., Nitis T., Turlou P.M., Sahm P. and Yamamoto Y. (2001), Ultra low emitting vehicles and air quality in urban areas, Proceedings of the 7th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (C. Cuvelier, S. Galmarini, G. Graziani and P. Thunis Eds.), Belgirate, Italy, 28 -31 May, pp. 324-328.
8. Sahm P., Cremades L., Nitis T., Toro M.V., Klaić Z.B. and Moussiopoulos N. (2001), Numerical investigation of meteorological conditions leading to elevated ozone concentrations in Medellin, Colombia, Proceedings of the 3rd International Conference on Urban Air Quality, Loutraki, Greece, 19-23 March, CD-ROM edition.
9. Nitis, T., Telišman Prtenjak, M., Bencetić Klaić, Z., Sahm, P. and Moussiopoulos N. (2003) Anatomy of the sea breeze in a complex coastal environment, Proceedings of the 4th International Conference on Urban Air Quality Measurement, Modelling and Management (R. Sokhi and J. Brexhler Eds.), Charles University, Prague, Czech Republic, 25-27 March 2003, pp. 400-403.
10. Kitsiou D., Nitis T., Mexa A. and Politi E. (2003), Development of a GIS tool for the management of coastal areas: a case study in the gulf of Gera, Lesvos, Greece, Proceedings of the International Conference on the Southern European Coastal Lagoons: The Influence of River Basin-Coastal Zone Interactions (C. N. Murray, J. M. Zaldívar, G. Giordani and P. Viaroli Eds.), Castello Estense, Ferrara, Italy 10-12 November, pp. 85.
11. Nitis T., Klaić Z.B., Kitsiou D. and Moussiopoulos N. (2004), Boundary layer height determination under summertime anticyclonic weather conditions over the coastal area of Rijeka, Croatia, Proceedings of the 9th International Conference on Harmonisation within Atmospheric Dispersion

- Modelling for Regulatory Purposes (P. Suppan Ed.), Garmisch-Partenkirchen, Germany, 1-4 June 2004, pp. 289-293.
12. Nitis T., Klaić Z.B. and Moussiopoulos N. (2005), Effects of Topography on the Urban Heat Island, Proceedings of the 10th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (A. N. Skouloudis, P. Kassomenos and J. Bartzis Eds.), Sissi, Crete, Greece, 17-20 October, pp. 473-477.
13. Nitis T. and Kitsiou D. (2006), Estimation of land surface parameters for Mesoscale Meteorological modeling using GIS and Remote Sensing, Proceedings of the European Geosciences Union General Assembly, Vienna, Austria, 2-7 April 2006 (Geophysical Research Abstracts, Vol. 8).
14. Kitsiou D., Nitis T., Tsaknakis A., Esteve M.A., Falcão M., Giordanni G., Loubersac L., and Tsirtsis G. (2006), Development of a WebGIS application for supporting the management of southern European coastal lagoons, Proceedings of the 7th International Symposium on GIS and Computer Cartography for Coastal Zone Management (C.D. Woodroffe, E. Bruce, M. Puotinen & R.A Furness Eds.), Sidney, Australia, 12-16 July 2006, pp. 83-90.
15. Skouloudis A, Kassomenos P. and Nitis T. (2007), Scrutinising the Effects of Atmospheric Pollution – Challenges for Science and Policies, Proceedings of the 11th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (D.J. Carruthers and C.A. McHugh Eds.), Cambridge, Great Britain, 2-5 July 2007, pp. 7-12.
16. Nitis T., Tsegas G. and Moussiopoulos N. (2007), Dynamical and thermodynamical effects of urban and rural land surfaces on the air flow in mesoscale meteorological modeling, Proceedings of the 11th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes (D.J. Carruthers and C.A. McHugh Eds.), Cambridge, Great Britain, 2-5 July 2007, pp. 292
17. Nitis T., Tsegas G., Korres G., I. Douros and Moussiopoulos N. (2007), Influence of Sea Surface Temperature variation on basic mesoscale flows over coastal areas, Proceedings of the 10th International Conference on Environmental Science and Technology, (T.D. Lekkas Ed.), 5-7 September 2007, Kos, Greece, pp. 1037-1044
18. Kitsiou D., Nitis T. and Kostopoulou M.N., Maravelakis N. and Maneas G. (2007), Evaluation of spatial interpolators for mapping organic carbon in Marine Sediments, Proceedings of the SPIE Europe Remote Sensing, Florence, Italy, 17-20 September 2007, vol. 6749, pp. 67490C1-67490C8
19. Telišman Prtenjak M., Nitis T. and Bencetić Klaić Z. (2008), Numerical mesoscale simulation of atmospheric conditions during severe SO<sub>2</sub> episode in Rijeka, Croatia, Proceedings of the Conference on Studying, Modeling and Sense Making of Planet Earth, Mytilene, Greece 1 – 6 June, 2008, pp. 1-8.
20. Telišman Prtenjak M., Jeričević A., Nitis T., Alebić-Juretić A. and Bencetić Klaić Z. (2009), Atmospheric boundary layer characteristics during high ozone concentrations in the Rijeka Bay area, Proceedings of the Second International Conference on Environmental Management, Engineering, Planning and Economics & SECOTOX Conference, Mykonos, June 21-26, 2009, pp. 1177-1182.
21. Kassomenos P, Skouloudis A and Nitis T. (2009), Reconsidering Uncertainty for Air-Pollution and Health Information Systems, Proceedings of the Second International Conference on Environmental Management, Engineering, Planning and Economics & SECOTOX Conference, Mykonos, June 21-26, 2009
22. Nitis T. and Moussiopoulos N. (2010), Implementation and evaluation of a land surface modification scheme on mesoscale meteorological model. Proceedings of the X Protection and Restoration of the Environment Conference, Corfu, 5-9 July 2010.
23. Kitsiou D. and Nitis T. (2010), Estimation of marine eutrophication levels based on satellite data, Protection and Restoration of the Environment Conference, Corfu, 5-9 July 2010.
24. Nitis T., Tsegas G., Moussiopoulos N. and Gounaridis D. (2016), Assimilating anthropogenic heat flux estimated from satellite data in a mesoscale flow model. Proceedings of 35<sup>th</sup> International Technical Meeting on Air Pollution Modelling and its Application, 3-7 October 2016, Chania, Crete, Greece.
25. Nitis T., Tsegas G., Moussiopoulos N., Gounaridis D. and D. Bliziotis (2017), Satellite data based approach for the estimation of anthropogenic heat flux over urban areas. Proceedings of International Conference on Remote Sensing and Geoinformation of Environment, 20-23 March 2017, Paphos, Cyprus.
26. Nitis T., Tsegas G. and Moussiopoulos N. (2017), Assessment of mesoscale model improvements using satellite data, Proceedings of the Sixth International Conference on Environmental Management, Engineering, Planning and Economics & SECOTOX Conference, Thessaloniki, June 25-30, 2017, pp. 341.
27. Kitsiou D., Tsegas G., Nitis T. and Patera A. (2017), Development of a webGIS tool to assess the accuracy of spatial interpolators in oceanographic studies, Proceedings of the Sixth International

Conference on Environmental Management, Engineering, Planning and Economics & SECOTOX Conference, Thessaloniki, June 25-30, 2017, pp. 347.

28. Tsegas G., Nitis T., Chourdakis E. and Moussiopoulos N. (2017), The impact of topography and sea surface temperature on the evolution of the urban boundary layer, 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, 9-12 October 2017, Bologna, Italy.

29. Nitis T., Tsegas G., Akylas V., Viguié V. and Moussiopoulos N. (2017), The impact of urban growth on mesoscale meteorological features and characteristics over the urban area of Paris, 18th International Conference on Harmonisation within Atmospheric Dispersion Modelling for Regulatory Purposes, 9-12 October 2017, Bologna, Italy.

## Projects

Study of a model for the quality of air concerning non-reactive pollutants in selected European cities, Coordinator: Auto/Oil I, 1994-1995.

Contribution to the European Topic Center on Air Quality of the European Environment Agency, European Topic Center on Air Quality, 1995-2000.

Assessment of policy instruments for efficient ozone abatement strategies in Europe, Environment and Climate Programme, 1996-1998.

Ecological and environmental monitoring and simulation system for management decision support in urban areas, Telematics for the Environment Programme, 1996-1998.

Athens 2004 air quality study, Bid Committee "Athens 2004", 1996-1997.

Consideration of biogenic emissions in optimising air pollution abatement strategies for highly polluted urban areas, General Secretariat of Research and Technology, 1996-1998.

Installation of a complete and reliable system of air pollution models for the master plan implementation and environmental protection of Thessaloniki, Organisation of Planning and Environmental Protection in Thessaloniki, 1997-1998.

Improved reporting of environmental information using the EIONET, Telematics for the Environment Programme, 1998-2000.

Air pollution and environmental impact assessment: the multimedia information source, Info 2000 Programme, 1999-2000.

Technical expertise in the context of Honda's Corporate environmental identity in Europe, HONDA R&D Department, 1999-2000.

Advanced training system for emergency management, Information Society Technologies Programme, 2000-2002.

An integrated approach to the heat island effect in the wider urban area of Thessaloniki, CEC, TMR Programme STAARTE, 1999-2000.

Study of the development of photochemical defilers by means of mathematic modelation and its effects on health, Universidad Pontificia Bolivariana (U.P.B.), Colombia, 2000-2001.

North Aegean Innovative Actions & Support, (Naias), ERDF Innovative Actions 2000 - 2006, 2002-2003.

Development of an information technology tool for the management of Southern European lagoons under the influence of river-basin runoff (DITTY), European Union, Energy, Environment and Sustainable Development - EESD-ESD-3, 2003-2006.

Assessment of the impact of anthropogenic activities in the quality of coastal environment and development of environmental quality indicators in the framework of Coastal Zone management according to the Directive 2000/60, Interreg Programme Greece-Cyprus, 2006-2008

Transboundary cooperation for the development of marine spatial planning, Interreg Programme Greece-Cyprus, 2014-2015