

## **Curriculum Vitae of Dimitra Founda**

### **PERSONAL INFORMATION**

Family Name : Founda  
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Address : National Observatory of Athens, I. Metaxa & V. Pavlou, Athens,  
GR15236  
Marital status : Married with 2 children

### **EDUCATION**

1990-1995: PhD in Atmospheric Boundary Layer, University of Athens, Dept. of Physics, Division of Applied Physics. PhD Thesis: Study of the turbulent characteristics and mean wind flow over an area that combines pronounced topographic irregularities and changes in surface roughness.  
1985-1987: MSc in Meteorology and Atmospheric Physics, University of Athens, Dept. of Physics, Division of Applied Physics. MSc Thesis: Climatological classification of acoustic radar records on a mountainous valley.  
1981-1985: B.Sc. Degree in Physics, University of Athens, Dept. of Physics, Division of Applied Physics.

### **LANGUAGES**

Mother tongue: Greek  
Other languages: English (C1\*), French (B1\*)  
(\*Common European Framework of Reference for Languages)

### **AREAS OF EXPERTISE**

Meteorology, Climatology, Climate Change, Climatic Time Series Analysis, Urban Climate, Atmospheric Boundary Layer (ABL), Atmospheric Circulation, Turbulent Wind flows, Wind flows modeling

### **CURRENT POSITION**

2009-today: Senior Researcher at the National Observatory of Athens/Institute for Environmental Research & Sustainable Development (NOA/IERSD) - Head of IERSD-NOA's data quality and assurance Office- Responsible for the historical climatic station in Athens

### **PREVIOUS POSITIONS**

2006-2009 : Associate Researcher at NOA/IERSD  
2001-2006 : Permanent Technical Scientific Staff at NOA/IERSD  
1994-2001 : Technical Scientific Staff at NOA/IERSD (under indefinite term contract)  
1987-1994 : Technical Scientific Staff at NOA/IERSD (under fixed term contract)  
1986 : Public Power Corporation/Department for Alternative Energy Form (under fixed term contract).

## MEMBERSHIP

- Member of Organizing and Scientific Committees in International Conferences
- Member of the ACRE Initiative (Atmospheric Circulation Reconstruction over the Earth), led by Hadley Center Met-Office aiming at the rescue of global historical climatic data.
- Member of the Management Board of the Hellenic Meteorological Society (member of the European Meteorological Society, EMS) since 2006.
- Member of the Hellenic Association of University Women

## RESEARCH ACTIVITIES & COLLABORATIONS

Participation in 25 European and National Projects and 5 experimental campaigns. Collaboration with Universities, Research Centres and Organizations from Greece and abroad in the framework of common research interests, common publications, implementation of Research Projects, experimental campaigns and research proposals submission, including Hadley Center-Met-Office(UK), RIVM (Netherlands), KNMI (Netherlands), NILU (Norway), Stockholm University, NCAR (USA) and many others.

## REVIEWER - EVALUATOR

- Reviewer of the International Scientific Journals: *Advances in Building Energy Research*, *Advances in Meteorology*, *Annales Geophysicae*, *Atmosphere*, *Atmospheric Chemistry & Physics*, *Atmospheric Research*, *Atmospheric Science Letters*, *Boundary Layer Meteorology*, *Climatic change*, *Climate Dynamics*, *Educational Research and Reviews*, *Energy and Building*, *Environment-Development and Sustainability*, *Geophysical Research Letters*, *Global Nest*, *International Journal of Atmospheric Sciences*, *International Journal of Climatology*, *International Journal of Environmental Research and Public Health*, *Journal of Wind Engineering and Industrial Aerodynamics*, *Meteorologische Zeitschrift*, *Landscape and urban planning*, *Urban Climate*, *Regional Environmental Change*, *Theoretical and Applied Climatology*, *World Environment*.
- Evaluator of H.F.R.I proposals for postdoctoral researchers funding
- Member of M.Sc. and PhD Examining Committees

## TEACHING ACTIVITIES & STUDENTS' SUPERVISION

- Assigned Lecturer of the MSc courses on Cultural Heritage and Science Technology, University of Peloponnese (2016, 2017).
- Lecturer in Summer schools organized by NOA (2003-2017)
- Lecturer in Summer schools organized by Technological School of Ionian Islands (2012-2013).
- Lecturer in training Schools on climatic change and natural hazards for the National School of Public Administration, targeted to civil servants (2007, 2009).
- Lecturer in training Schools on environmental issues organized by NOA targeting to High School teachers (1997, 1998).
- Laboratory lessons on Atmospheric Physics, Division of Applied Physics, Dept. of Physics, the University of Athens (1996, 1998).
- Assigned Lecturer of the Courses on 'Maritime Meteorology', Dept. of Maritime Studies, Centre for Management and Administration /CMA College, Athens (in cooperation with the University of Wales), 1994, 1995.

Supervision of 15 in total BSc and MSc Theses and students' rehearsals.

## OTHER ACTIVITIES

- Participation in the activities of NOA as focal point of the European Topic Centre on Air Quality (ETA/AQ) of the European Environment Agency (EEA) (1995-2000).
- Leader of the team for the digitization of historical climatic series of NOA (in the framework of the EU Project HYDROSCOPE: Creation of a National Databank of Hydrological and Meteorological Information, 1997-2000).
- Leader of the action for the monitoring of climatic trends and wind flow at the islands of Ionian sea, in the framework of the Memorandum for Collaboration of NOA with the Technological Institute of Ionian Islands.
- Participation in the activities of the UNESCO Chair for Natural Hazards Natural Hazards on the Geosphere, the Hydrosphere and the Atmosphere, hosted at NOA. Representative of NOA to the ASPnet UNESCO network for schools and networks with other Chairs in the Balkans.
- Representative of NOA to the women researchers network 'PERIKTIONI' for the promotion of policy of equal opportunities to Research and Technology.
- Activities on the public outreach of research results, including:
  - Lectures for the public and students at numerous Workshops organized by municipalities, NGOs, Schools, Scientific Associations and Organizations all over Greece.
  - Organization of the European Researcher's Night events in Athens aiming at the science public outreach and contribution to other Science Festivals.
  - Articles in press, TV and Radio interviews.

## PUBLICATIONS

Main author or co-author of 35 papers published in International refereed journals, 60 International and National Conferences, 8 Books and 23 Technical Reports. The total number of citations to all refereed papers is ~1000, h index 15, hi10 index 16 (Google Scholar).

### List of representative Publications of the last 10 years

- Kazadzis S., Founda D., Psiloglou B., Kambesidis H., Mihalopoulos N., Sanchez-Lorenzo A., Meleti C., Raptis P.I., Pierros F., Nabat P (2018): Long term series of solar radiation in Athens, Greece. *Atmos. Chem. Phys.* 18, 2395-2411, 2018, <https://doi.org/10.5194/acp-18-2395-2018>.
- Founda D., Nastos P.T., Pierros F. and Kalimeris A.: Historical observations of cloudiness (1882-2012) over a large urban area of the eastern Mediterranean (Athens), *Theor. Applied Climatol.* (TAAC 17-00423), (under review).
- Kalimeris A. and Founda D.: Interannual variability modes of the Athens total cloud cover, *International Journal of Climatology* (IJOC 17-0476), (under review).
- Founda D. & Santamouris M. (2017): Synergies between Urban Heat Island and Heat Waves in Athens (Greece), during an extremely hot summer (2012). *Scientific Reports*, 7: 10973 | <https://www.nature.com/articles/s41598-017-11407-6>.
- Keramitsoglou I., Sismanidis P., Analitis A., Butler T, Founda D., Giannakopoulos C., Giannatou E. Karali A., Katsouyanni K., Kendrovski V, Lemesios G., Myrivili E.,

Ordoñez D., Varotsos K., Vlastou G. and Kiranoudis C. (2017): Urban thermal risk reduction: Developing and implementing spatially explicit services for resilient cities. *Sustainable Cities and Society*, 34, October 2017, Pages 56-68. doi:10.1016/j.scs.2017.06.006.

- Teimuraz Matcharashvili, Natalia Zhukova, Tamaz Chelidze, Dimitra Founda, Evangelos Gerasopoulos (2017): Analysis of long-term variation of the annual number of warmer and colder days using Mahalanobis distance metrics — A case study for Athens. *Physica A: Statistical Mechanics and its Applications*, 487, 1 December 2017, 22-31, doi:10.1016/j.physa.2017.05.065.
- Kalimeris A., Ranieri E., Founda D. and Norrant C. (2017): Variability modes of precipitation along a Central Mediterranean area and their relations with ENSO, NAO, and other climatic patterns. *Atmospheric Research*, 198, 56-80, doi:10.1016/j.atmosres.2017.07.031.
- Kazadzis S., Founda D., Psiloglou B., Kambesidis H., Mihalopoulos N., Sanchez-Lorenzo A., Meleti C., Raptis P.I., Pierros F., Nabat P (2017): Long term series of solar radiation in Athens, Greece. *Atmos. Chem. Phys. Discuss.*, doi:105194/acp-2017-48, 2017.
- Founda D., Kazadzis S., Mihalopoulos N., Gerasopoulos E., Lianou M and Raptis, P.I. (2016): Long term visibility variation in Athens (1931-2013): a proxy for local and regional atmospheric aerosol loads. *Atmos. Chem. Phys.* 16, 11219-11236, doi:10.5194/acp-16-11219-2016.
- Founda D., Pierros F., Petrakis M. and Zerefos C. (2015): Interdecadal variations and trends of the Urban Heat Island in Athens (Greece) and its response to heat waves. *Atmospheric Research*, 161-162, 1-13, doi:10.1016/j.atmosres.2015.03.016.
- Founda D., A. Kalimeris and F. Pierros (2014): Multi annual variability and climatic signal analysis of sunshine duration at a large urban area of Mediterranean (Athens). *Urban Climate*, 10, 815-830, doi:10.1016/j.uclim.2014.09.008.
- Mathew Santamouris, John A. Paravantis, Dimitra Founda, Dionysia Kolokotsa, Panagiota Michalakakoue, Agis M. Papadopoulos, Nikoletta Kontoulis, Anna Tzavali, Eleni K. Stigka, Zisis Ioannidis, Amantin Mehilli, Alexander Matthiessen, Eirini Servou, (2013). Financial crisis and energy consumption: A household survey in Greece. *Energy and Buildings* 65 (2013) 477–487, doi:10.1016/j.enbuild.2013.06.024.
- Founda D., C. Giannakopoulos, F. Pierros, A. Kalimeris and M. Petrakis.(2013): Observed and projected precipitation variability in Athens over a 2.5 century period. *Atmospheric Research Letters*. 14: 72–78 .doi:10.1002/asl2.419.
- Nikos Koutsias, F. Gavriil Xanthopoulos, Dimitra Founda, Fotios Xystrakis, Foula Nioti, Magdalini Pleniou, Giorgos Mallinis and Margarita Arianoutsou (2012): On the relationships between forest fires and weather conditions in Greece from long-term national observations (1894–2010). *International Journal of Wildland Fire*, 22, 493-507,doi:10.1071/WF12003.
- Kalimeris A., Founda D., Giannakopoulos C. and Pierros F. (2012): Long term precipitation variability in the Ionian Islands (Central Mediterranean): Climatic signal analysis and future projections'. *Theor. Appl. Climatol.* 109: 51-72, doi:10.1007/s00704-011-0550-5.
- Zerefos S.C., Tassis C.A., Kotsiopoulos A.M., Founda D., Kokkini A. (2012): The role of building form in energy consumption: The case of a prismatic building in Athens *Energy and Buildings* 48, 97-102, doi:10.1016/j.enbuild.2012.01.014.
- Founda D. 2011: Evolution of the air temperature in Athens and evidence of climatic change – A review. *Advances in Building Energy Research (ABER)*, Vol. 5, Number 1, 7-41, doi:10.1080/17512549.2011.582338.

- Nastos P.T., Philandras C.M., Founda D. and Zerefos C.S. (2011): Air temperature trends related to changes in atmospheric circulation in the wider area of Greece. *International Journal of Remote Sensing*, 32, 737-750, doi:10.1080/01431161.2010.517796.
- Founda D., Lykoudis S., Psiloglou B. E., Petrakis M. and Zerefos C. (2009): Observations of the atmospheric surface layer parameters during the total solar eclipse of March 29<sup>th</sup> in Greece. *Meteorol Z.*, Vol. 18, No 5, 489 - 494 (October 2009), doi:10.1127/0941-2948/2009/0406.
- Founda D. and Giannakopoulos C. (2009): The exceptionally hot summer of 2007 in Athens, Greece – A typical summer in the future climate? *Global and Planetary Change* 67, 227-236, doi:10.1016/j.gloplacha.2009.03.013.
- Founda D., Kambezidis H.D., Petrakis M., Zanis P. and Zerefos C. (2009): A correction of the recent air temperature record at the historical meteorological station of the National Observatory of Athens (NOA) due to instrument change. *Theor. Appl. Climatol.* 97, 385-389, doi:10.1007/s00704-008-0084-7.
- E. Gerasopoulos, C. S. Zerefos, I. Tsagouri, D. Founda, V. Amiridis, A. F. Bais, A. Belehaki, N. Christou, G. Economou, M. Kanakidou, A. Karamanos, M. Petrakis, and P. Zanis (2008) : The Total Solar Eclipse of March 2006: overview. *Atmos. Chem. Phys.* 8, 5205-5220, doi:10.5194/acp-8-5205-2008.
- Founda D. & H. van Loon (2008): Circulation anomalies associated with winter temperature extremes in Athens during the period 1900-2004. *Meteorol Z.*, Vol. 17, Number 1, February 2008, 55.59, doi:10.1127/0941-2948/2007/0260.
- Van Loon H., D. Founda, B.E. Psiloglou (2007): Circulation changes on the Northern Hemisphere in winter associated with trends in the surface air temperature. *Academy of Athens, Research Center for Atmospheric Physics and Climatology*, Publication No 17.
- V. Amiridis, D. Melas, D. S. Balis, A. Papayannis, D. Founda, E. Katragkou, E. Giannakaki, R. E. Mamouri, E. Gerasopoulos, and C. Zerefos (2007): Aerosol Lidar observations and model calculations of the Planetary Boundary Layer evolution over Greece, during the March 2006 Total Solar Eclipse *Atmos. Chem. Phys.*, 7, 6181-6189, doi:10.5194/acp-7-6181-2007.
- Founda D., D. Melas, S. Lykoudis, I. Lisaridis, E. Gerasopoulos, G. Kouvarakis, M. Petrakis and C. Zerefos (2007): The effect of the total solar eclipse of March 29, 2006 on meteorological variables in Greece, *Atmos. Chem. Phys.*, 7, 5543-5553, doi:10.5194/acp-7-5543-2007.
- Kostopoulou E., C. Giannakopoulos, C. Anagnostopoulou, K. Tolika, P. Maheras, M. Vafiadis, D. Founda (2007): Simulating maximum and minimum temperature over Greece: A comparison of three downscaling techniques. *Theor. Appl. Climatol.*, 90, 65-82, doi:10.1007/s00704-006-0269-x.

## RECENT RESEARCH PROJECTS (last 5 years)

**RENA: The European Researchers Night 2016-2017:** Project Leader of NOA ( Coordinator of the 2017 events): Marie Curie Sklodowska project, EC funding (160,000 euros).

*Partners : National Center for Scientific Research “Demokritos” the National Hellenic Research Foundation, the Hellenic Centre for Marine Research, the “Athena” Research and Innovation Center in Information, Communication and Knowledge Technologies, the Foundation of the Hellenic World, and the non-profit organization “SciCo”.*

**REN-ATHENS: The European Researchers Night 2014-2015:** Project Leader of NOA (Coordinator of the 2015 events): Marie Curie Sklodowska project, EC funding (160,000 euros). (*Partners as above*)

**EXTREMA (Extreme Temperature Alerts for Europe)**

European Commission Directorate-General for European Civil protection and Humanitarian Aid Operations

*Partners: NOA (Coordinator), National & Kapodistrian University of Athens, Center for Environmental and Respiratory Health Research/ University of Oulu, Aratos Systems, Any Solution S.L., GAP TV facilities, City of Athens IT Company, Law and Internet Foundation (LIF).*

(Leader of IERSD/NOA team)

**TREASURE: Thermal risk reduction actions and tools for secure cities**

DG ECHO funded project

*Partners: National Technical University of Athens (NTUA), National Observatory of Athens (NOA), National Kapodistrian University of Athens (NKUA), Protigy Consul Tores S.L.*

(Main research team for NOA, WP Leader)

**Adapt2CLIMA (LIFE14 CCA/GR/000928) Adaptation to climate Change Impacts on the Mediterranean islands' Agriculture**

*Partners: National Observatory of Athens (NOA), Agricultural Research Institute (Cyprus), Institute of Biometeorology (Italy), National Technical University of Athens (NTUA), Region of Crete, Department of Agricultural, Rural Development and Mediterranean Fisheries (SIAS), Region of Sicily*

*Funding: EC co-funding 60%, Total Budget 1,497,060 euro, Budget for NOA 320,000 euro Start: 1/10/2015 End: 30/4/2019 (Main research team for NOA).*

**UrbanProof (LIFE15 CCA/CY/000086) Climate Proofing Urban municipalities**

*Partners: National Technical University of Athens (NTUA), National Observatory of Athens (NOA) Municipality of Lakatamia (Cyprus), Municipality of Strovolos (Cyprus), University UIAV of Venice (Italy), Municipality of Reggio Emilia (Italy), Municipality of Peristeri (Athens)*

*Funding: ECD co-funding 60%, Total budget 1,854,000 euro, Budget for NOA 336,839 euro Start: 01/10/2016 End 31/05/2020, (Main research team for NOA).*

**XENIOS: The impact of climate change on vulnerable touristic areas of Greece - Pilot study for Messinia (Synergy Project)**

*Partners: NOA, University of Athens (NKUA), Private Sector Funding: EU, National sources and Private Sector, Total budget: 550,000 euro, Budget for NOA: 183,600 euro, Start: 14/12/210 End: 14/12/2013*

(Main research team of NOA and WPs Leader)

**CIRCE: Climate Change and Impact Research: The Mediterranean Environment (CIRCE- IP Project)**

*Partners: 65 participants from Mediterranean countries*

*Funding: EU, Total Budget: 13,779,814 euro, Budget for NOA: 100,000 euro, Start: 1/4/2007, End: 31/3/2011*

(Participation in the research team of NOA and as external collaborator of NKUA , tasks leader).

