

# CURRICULUM VITAE

## PERSONAL DATA

Name : Ioannis A. Kalogiros  
Born : January 21th, 1967, Greece  
Nationality : Greek  
Present position : Senior Researcher  
Office Address : National Observatory of Athens,  
Institute of Environmental Research and  
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## EDUCATION

**Ph.D.**, Department of Physics, Division of Applied Physics, National and Kapodistrian University of Athens, 1997

Dissertation title: *"Development of methods and algorithms for the study of the structure of the lower atmosphere using acoustic sounders"*

**M.Sc.** in Meteorology, Department of Physics, Division of Applied Physics, National and Kapodistrian University of Athens, 1991

Thesis title: *"Differential measurement and correlation of the humidity and temperature turbulence fields"*

**B.Sc.**, Diploma in Physics, Department of Physics, National and Kapodistrian University of Athens, 1989

Thesis title: *"Study and improvement of atmospheric instability indices"*

## PROFESSIONAL RECORD

### Employment Record

2002-present : Researcher in the National Observatory of Athens, Institute of Environmental Research and Sustainable Development, Athens, Greece.

2000-2002 : Research Associate in the Department of Meteorology, Naval Postgraduate School, Monterey, USA.

1998 –2000 : Research Assistant in the Laboratory of Meteorology, Division of Applied Physics, Department of Physics, National and Kapodistrian University of Athens, Athens, Greece.

- 1997 : Teaching Assistant, Laboratory of Aerodynamics, Hellenic Air Force Academy, Athens, Greece.
- 1991 - 1996 : Research and Teaching Assistant, Division of Applied Physics, Department of Physics, National and Kapodistrian University of Athens, Athens, Greece.

### **Scholarships**

- 1991 - 1995 : National and Kapodistrian University of Athens scholarship, Athens, Greece.

### **Participation in Scientific Organizations and Reviewer**

American Meteorological Society, Royal Meteorological Society.

Reviewer in many peer review journals like: Journal of Atmospheric and Oceanic Technology, Journal of Applied Meteorology and Climatology, Atmospheric Research, Journal of Hydrology, Atmospheric Measurement Techniques, Journal of Geophysical Research - Oceans, International Journal of Atmospheric Sciences, Journal of Climatology, Remote Sensing, International Journal of Remote Sensing Letters, Transactions on Geoscience and Remote Sensing, Advances in Atmospheric Sciences, Atmosphere, Atmospheric Chemistry and Physics, Atmospheric Measurement Techniques, Sensors, Water Resources Research.

## **RESEARCH ACTIVITIES**

### **Research Experience and Interests**

- Atmospheric Boundary Layer: structure structure of the atmospheric turbulence, stability effects, similarity theory, turbulence closure, entrainment, micrometeorology.
- Marine Atmospheric Boundary Layer: atmospheric processes within clouds, coastal effects, interaction with local atmospheric flows.
- Thermally and topographically induced circulations over complex terrain: sea breeze and katabatic flows development and characteristics.
- Air Pollution meteorology and transfer of pollutants: atmospheric conditions favoring air pollution episodes, local flows effect.
- Precipitation systems structure and development using weather radar: rain microphysics, rainfall estimation and flood forecasting applications.
- Instrumentation: slow and fast response in-situ meteorological sensors, aircraft measurements, ground based remote sensors (acoustic sounder, RASS, weather radar), data acquisition hardware and software.

Expertise in various computing environments (in terms of hardware, operating systems, networks, graphics subsystems etc.) and code development in Matlab, C/C++, Fortran, Assembly, Basic.

## Research Projects (Principal Investigator or Participation)

- 2022-2026 : "Study of the Structure of the Coastal Atmospheric Boundary Layer and EM/EO Propagation", Cooperative Agreement Grant, Naval Supply Systems Command, Basic and Applied Scientific Research, USA, NOA budget 150k\$.
- 2018-2021 : "Ionian-Adriatic early warning monitoring system (i-ALARMS)", INTERREG IPA II Cross-Border Cooperation Program Greece-Albania 2014-2020, European Union, NOA budget 75k€.
- 2017-2020 : "THESPIA II - Thesis of Comprehensive and Integrated Methodologies and Tools for Monitoring, Management and Forecasting of Environmental Parameters and Pressures", IERSD/NOA, financed by the Operational Program "Competitiveness, Entrepreneurship and Innovation" under the NSRF 2014-2020, Greek General Secretariat for Research and Technology, Greece and the European Union.
- 2017 : "Survey and conservation of seabirds in Greece", cooperation with the Hellenic Ornithological Society and "NCC Environmental Studies" company for survey of birds migration with weather radar, LIFE program.
- 2013-2016 : "Improving our understanding of wave-air-sea interaction in the marine boundary layer", Cooperative Agreement Grant, Naval Supply Systems Command, Basic and Applied Scientific Research, USA, in the framework of Coupled Air Sea Processes and Electromagnetic Ducting Research (CASPER) project, Naval Postgraduate School, Office of Naval Research, USA, NOA budget 120k\$.
- 2013-2014 : "HyMeX-Hydrological cycle in the Mediterranean Experiment-research program", funded by the Centre National de la Recherche Scientifique, France, NOA budget 11k€.
- 2013-2014 : "Use of Ground-Validation data to evaluate and improve uses of satellite-rainfall in hydrologic modeling of complex terrain basin floods", subcontract from the University of Connecticut, in the framework of NASA project, USA, NOA budget 19.4k€.
- 2012-2014 : "HYDRO-X, Advancing hydrometeorological uses of X-band dual-polarization radar", in the framework of the "Education and Lifelong Learning" program, funded by the EU-European Social Fund and Greek Ministry of Education and Religious Affairs, Greece, NOA budget 128k€.
- 2012-2014 : "Archimedes III, Development and evaluation of a high resolution atmospheric urban canopy model for energy applications in structured areas", Technological Education Institution of Western Macedonia, funded by the Greek Ministry of Education and Religious Affairs, Greece, NOA budget 5.8k€.
- 2011-2012 : "Analysis of aircraft atmospheric measurements during DYNAMO project for coupled model improvement", subcontract from the Naval Postgraduate School, funded by the Office of Naval Research, USA, NOA budget 40k\$.

- 2011 : "AEGEAN-GAME: Aegean pollution, gaseous and aerosol airborne measurements", in the framework of the European Facility for Airborne Research (EUFAR) program, National and Kapodistrian University of Athens, Greece.
- 2009-2011 : "Integrated advanced distributed system for hydro-meteorological monitoring and forecasting using low-cost high-performance X-band mini-radar and cellular network infrastructures (HYDRORAD)", European Commission, 7<sup>th</sup> European Union RTD Framework, NOA budget 238k€.
- 2010 : "Water Predictability and Water Cycle (PREWEC)", subcontract from the Hellenic Centre for Marine Research, Marie Curie Excellence Grant funded under the EU Sixth Framework Programme, NOA budget 10k€.
- 2008-2011 : "Shipboard measurements of surface flux and near surface profiles and surface flux parameterization", subcontract from the Naval Postgraduate School, funded by Office of Naval Research, USA, NOA budget 75k\$.
- 2008-2009 : "Flood zoning in Southeast Attica using gauge calibrated radar rainfall and advanced modeling techniques (FLADAR)", European Commission, Marie Curie FP7 IRG, subcontract from the National Technical University of Athens, School of Civil Engineering, Laboratory of Hydrology and Water Resources Development, NOA budget 5k€.
- 2007-2008 : "A pilot scheme for the use of high-resolution X-band mobile polarimetric radar (XPOL) and its application for the autonomous Province of Trento", funded by Department of Civil Protection and Safeguarding of the Territory Autonomous Province of Trento, Italy, NOA budget 9.5k€.
- 2006-2007 : "HYDRATE: Hydrometeorological data resources and technologies for effective flash flood forecasting", 6<sup>th</sup> Framework Program for Research, Technological Development and Demonstration Specific Targeted Research or Innovation Projects, European Union, NOA budget 29.4k€.
- 2004-2008 : "Understanding near-surface and in-cloud turbulent fluxes in the coastal stratocumulus-topped boundary layers", subcontract from the Naval Postgraduate School, funded by the Office of Naval Research, USA, NOA budget 130k\$.
- 2004 : "Ionian Sea Rainfall Experiment", subcontract from the University of Connecticut, in the framework of National Science Foundation project, USA, NOA budget 165k€.
- 2004-2005 : "Advanced Techniques of Environmental Measurements and Forecasts, Human Networks", IERSD/NOA, funded by the General Secretariat for Research and Technology, Greece.
- 2003-2004 : "Operational support of Hellenic National Meteorological Service from the National Observatory of Athens in the framework of Athens 2004 Olympic Games", IERSD/NOA, funded by the General Secretariat of Olympic Games, Greece.
- 2002-2003 : "Improvement of forecast of atmospheric and climatic parameters in local and regional scales in East Mediterranean-Improvement of

- precipitation forecast", IERSD/NOA, in the framework of Networks of Excellence program, funded by the General Secretariat for Research and Technology, Greece.
- 2002-2003 : "Observational study of the interaction between atmosphere and ocean", cooperation with Naval Postgraduate School, in the framework of Coupled Boundary Layer Air-Sea Transfer (CBLAST) project, funded by the Office of Naval Research, USA.
- 2000-2002 : "Systematic evaluation of surface flux and boundary layer parameterizations in mesoscale models in high-winds conditions", Japan East Sea (JES) project of the Naval Postgraduate School, funded by the National Science Foundation and Office of Naval Research, USA.
- 2000-2002 : "Understanding the evolution of stratocumulus clouds in the coastal region", Development and Evolution of Coastal Stratocumulus (DECS) project of the Naval Postgraduate School, funded by the National Science Foundation, USA.
- 1999-2000 : "Development and experimental operation of an acoustic sounder-RASS station in Athens, Greece", National and Kapodistrian University of Athens, funded by the Greek Ministry of Environment, City Planning and Public Works, Greece.
- 1999-2000 : "HIPPODAMUS: A WWW Based Expanded Learning Environment", National and Kapodistrian University of Athens, funded by the program "Schools for the Implementation of Experimental Educational Projects" of the Greek Pedagogical Institute, under the Educational and Initial Vocational Training Operational Program of the Greek Department of Education and the European Union, Greece.
- 1998-2000 : "Cross boundaries air pollution transport over large distances and development of control infrastructure", National and Kapodistrian University of Athens, funded by the Greek Ministry of Environment, City Planning and Public Works, Greece.
- 1998-1999 : "Application of the acoustic sounder to the study of atmospheric parameters that control air pollution dispersion: estimation of the strength of temperature inversions", National and Kapodistrian University of Athens internal project, Greece.
- 1998 : "Study of the vertical structure of ozone in the area of Saronikos Gulf, Greece", National and Kapodistrian University of Athens, funded by the Greek Ministry of Environment, City Planning and Public Works, Greece.
- 1994-1995 : "Study of the effect of the operation of the new Airport at Spata and the Airport at Hellinikon, Greece, on the air quality at the greater Athens area", National and Kapodistrian University of Athens, funded by the "Athens Airport S.A.", Greece.
- 1994-1995 : "Study of katabatic flows and turbulent features generated in areas with strong topographical relief", National and Kapodistrian University of Athens, funded by the Greek General Secretariat for Research and Technology, Greece.
- 1993-1994 : "Experimental study of the vertical heat and momentum turbulent fluxes and the height of the Convective Boundary Layer over

- Athens basin", internal project National and Kapodistrian University of Athens internal project, Greece.
- 1992-1994 : "South European Cycles of Air Pollution (SECAP)", National and Kapodistrian University of Athens, funded by the European Union, Directorate General XII.
- 1992-1993 : "Study of the Saronikos Gulf sea breeze using acoustic sounder", National and Kapodistrian University of Athens, funded by the MED-POL European program, Greek Ministry of Environment, City Planning and Public Works, Greece.
- 1991-1993 : "Experimental and numerical study of the Atmospheric Boundary Layer in Athens basin, simulation of the atmospheric and air pollutants circulation during air pollution episodes", National and Kapodistrian University of Athens, funded by the PENED 89 program, Greek General Secretariat for Research and Technology, Greece.

## TEACHING EXPERIENCE

### **Hellenic Air Force Academy: 1997**

*Teaching Assistant:*

- Experimental Aerodynamics courses

### **National and Kapodistrian University of Athens: 1991 - 1995**

*Teaching Assistant:*

- Experimental Physics courses
- Experimental Meteorology

Supervision of under-graduate, Msc, PhD and post-graduate student theses in the National and Kapodistrian University of Athens, Greece, and Harokopio University of Athens, Greece and advisor of student theses in the Department of Meteorology, Naval Postgraduate School, USA.

## LIST OF PUBLICATIONS

Publications in international peer-review journals:	57
Announcements in international conferences:	127
Citations by others:	>500

## Publications in International Refereed Journals and Book Chapters

1. Varlas, G., M. Anagnostou, C. Spyrou, A. Pappa, A. Mentzafou, A. Papadopoulos, J. Kalogiros, P. Katsafados, and S. Michaelides (2021): "Multiplatform hydrometeorological analysis of a flash flood event", Book chapter in *Precipitation Science: Measurement, Remote Sensing, Microphysics and Modeling*, Ed. M. Silas, 689-741, ISBN: 978-0-12-822973-6.
2. Wang, Q., R. T. Yamaguchi, J. A. Kalogiros, Z. Daniels, D. P. Alappattu, H. Jonsson, O. Alvarenga, A. Olson, B. J. Wauer, D. G. Ortiz-Suslow, and H.

- J.Fernando (2021): "Microphysics and optical attenuation in fog: observations from two coastal sites", *Boundary-Layer Meteorol.*, DOI: 10.1007/s10546-021-00675-5.
3. Portalakis., P., M. Tombrou, J. Kalogiros, A. Dandou, and Q. Wang (2021): "Investigation of air-sea turbulent momentum flux over the Aegean Sea with a wind-wave coupling model", *Atmosphere*, 12, 1208, DOI: 10.3390/atmos12091208.
  4. Derin, Y., M. A. E. Bhuiyan, E. Anagnostou, J. Kalogiros and M. N. Anagnostou (2021): "Modeling level 2 passive microwave precipitation retrieval error over complex terrain using a nonparametric statistical technique", *IEEE Transactions on Geoscience and Remote Sensing*, 59, 11, 9021-9032, DOI: 10.1109/TGRS.2020.3038343.
  5. Ortiz-Suslow, D.G., J. Kalogiros, R. Yamaguchi, and Q.Wang (2021): "An Evaluation of the constant flux layer in the atmospheric flow above the wavy air-area interface", *JGR: Atmospheres*, DOI: 10.1029/2020JD032834.
  6. Papangelis, G., M. Tombrou, and J. Kalogiros (2021): "The Saharan convective boundary layer structure over large scale surface heterogeneity: A large eddy simulation study", *Atmos. Res.*, DOI: 10.1016/j.atmosres.2020.105250
  7. Methymaki, G., E. Bossioli, J. Kalogiros, G. Kouvarakis, N. Mihalopoulos, A. Nenes, and M. Tombrou, (2020): "Aerosol absorption over the Aegean Sea under northern summer winds", *Atmos. Env.*, 231, DOI: 10.1016/j.atmosenv.2020.117533
  8. Spyrou, C., Varlas, G., Pappa, A., Mentzafou, A., Katsafados, P., Papadopoulos, A., Anagnostou, M.N., Kalogiros, J., (2020): Implementation of a nowcasting hydrometeorological system for studying flash flood events: The case of Mandra, Greece. *Remote Sens.* 2020, 12, 2784, doi:10.3390/rs12172784
  9. Bellos, V., Papageorgaki, I., Kourtis, I., Harris, V., Kalogiros I. and G. Tsakiris, (2020): "Reconstruction of a flash flood event using a 2D hydrodynamic model under spatial and temporal variability of storm", *Nat Hazards*, 101, 711–726, doi.org/10.1007/s11069-020-03891-3
  10. Ortiz-Suslow, D., Wang, Q., Kalogiros, J., and Yamaguchi, R.,(2019): "A Method for Identifying Kolmogorov's Inertial Subrange in the Velocity Variance Spectrum". *J. Atmos. Oceanic Technol.*, doi:10.1175/jtech-d-19-0028.1
  11. Derin, Y., E. Anagnostou, M Anagnostou, J. Kalogiros, (2019): "Evaluation of X-Band Dual-Polarization Radar-Rainfall Estimates from OLYMPEX", *Journal of Hydrometeorology*, 20, 1941-1959, doi.org/10.1175/JHM-D-19-0097.1
  12. Ortiz-Suslow, D., Q. Wang, , J. Kalogiros , R. Yamaguchi, T. de Paolo, E. Terrill, R. Kipp Shearman, P. Welch, and I. Savelyev, (2019): "Interactions between nonlinear internal ocean waves and the atmosphere", *Geophysical Research Letters*, 46, 9291–9299. doi.org/10.1029/2019GL083374

13. Fan, S., Gao, Z., Kalogiros, J., Li, Y., Yin, J., and Li. X., (2019): "Estimate of Boundary-Layer Depth in Nanjing City using Aerosol Lidar Data during 2016-2017 Winter", *Atmos. Env.*, 205, 67-77, doi.org/10.1016/j.atmosenv.2019.02.022
14. Varlas, G., M. N. Anagnostou, C. Spyrou, A. Papadopoulos, J. Kalogiros, A. Mentzafou, S. Michaelides, E. Baltas, E. Karymbalis and P. Katsafados, (2019):," A Multi-Platform Hydrometeorological Analysis of the Flash Flood Event of 15 November 2017 in Attica, Greece", *Remote Sens.* 2019, 11(1), 45, 144-174, doi:10.3390/rs11010045
15. Diakakis, M., Andreadakis E., Spyrou N.I., Gogou M.E., Nikolopoulos E.I., Deligiannakis G., Katsetsiadou N.K., Antoniadis Z., Melaki M., Georgakopoulos A., Tsaprouni K., Kalogiros J., Lekkas E. (2018), "The flash flood of Mandra 2017, in West Attica, Greece. Description of impacts and flood characteristics", *International Journal of Disaster Risk Reduction*, S2212-4209(18)30393-5, doi:10.1016/j.ijdrr.2018.10.015.
16. Anagnostou, M.N., E.I. Nikolopoulos, J. Kalogiros, E.N. Anagnostou, F. Marra, E. Mair, G. Bertoldi, U. Tappeiner and M. Borga (2018): "Advancing precipitation estimation and streamflow simulations in complex terrain with X-band dual-polarization radar observations", *Remote Sensing*, 10, 1258; doi:10.3390/rs10081258.
17. Triantafyllou, A.G., J. Kalogiros, A. Krestou , E. Leivaditou, N. Zoumakis, D. Bouris, S. Garas, E. Konstantinidis, Q. Wang and K. Rados (2018): "Evaluation of an atmospheric model with surface and ABL meteorological data for energy applications in structured areas", *Theor. Appl. Climatol.*, 1-16, doi.org/10.1007/s00704-018-2429-1.
18. Derin, Y., E. Anagnostou, M. Anagnostou, J. Kalogiros, D. Casella, A. C. Marra, G. Panegrossi P. Sanò, (2017): Passive microwave rainfall error analysis using high-resolution X-band dual-polarization radar observations in complex terrain, *IEEE Trans. Geosci. and Rem. Sens.*, DOI 10.1109/TGRS.2017.2763622.
19. Wang, Q., D. P. Alappattu, S. Billingsley, B. Blomquist, R.J. Burkholder, A.J. Christman, E. D. Creegan, T. de Paolo, D.P. Eleuterio, H.J.S. Fernando, K.B. Franklin, A.A. Grachev, T. Haack, T.R. Hanley, C.M. Hocut, T.R. Holt, K. Horgan, H. H. Jonsson, R.A. Hale, J.A. Kalogiros, D. Khelif, L.S. Leo, R.J. Lind, I. Lozovatsky, J. Panella-Morato, S. Mukherjee, W.A. Nuss, J. Pozderac, L.T. Rogers, I. Savelyev, D.K. Savidge, R. K. Shearman, L. Shen, E. Terrill, A.M. Ulate1, Q. Wang, R.T. Wendt, R. Wiss, R.K. Woods, L. Xu, R.T. Yamaguchi, and C. Yardim, (2017): CASPER, Coupled Air-Sea Processes and Electromagnetic (EM) ducting Research, *Bull. Am. Meteorol. Soc.*, DOI 10.1175/BAMS-D-16-0046.1
20. Erlingis, J.M., J.J. Gourley, P.E. Kirstetter, E.N. Anagnostou, J. Kalogiros, M.N. Anagnostou, and W. Petersen, (2017): Evaluation of operational and experimental precipitation algorithms and microphysical insights during IPHEX, *J. Hydrometeorol.*, DOI 10.1175/JHM-D-17-0080.1
21. Dandou, A., M. Tombrou, J. Kalogiros, E. Bossioli, G. Biskos, N. Mihalopoulos, and H. Coe, (2017): Investigation of turbulence parameterization schemes with reference to the Atmospheric Boundary Layer over the Aegean Sea during Etesian winds, *Boundary-Layer Meteorol.*, 164, 2, 303–329, DOI 10.1007/s10546-017-0255-0



22. Alappattu, D.P., Wang, Q., Kalogiros, J., Guy, N., and D.P. Jorgensen (2016): "Variability of upper ocean thermohaline structure during a MJO event from DYNAMO aircraft observations", *Journal of Geophysical Research Oceans*, 122, DOI: 10.1002/2016JC012137.
23. Papayannis, A., Argyrouli, A., Bougiatioti, A., Remoundaki, E., Vratolis, S., Nenes, A., Solomos, S., Komppula, M., Giannakaki, E., Kalogiros, J., Banks, R., Eleftheriadis, K., Mantas, E., Diapouli, E., Tzanis, C.G., Kazadzis, S., Biniotoglou, I., Labzovskii, L., Vande Hey, J., and C.S. Zerefos (2016): "From hygroscopic aerosols to cloud droplets: The HygrA-CD campaign in the Athens basin-An overview", *Sci. Total Environ.*, 574, 216-233, DOI: 10.1016/j.scitotenv.2016.09.054.
24. Ioannidou, M. P., Kalogiros J. A., and A. K. Stavrakis (2016): "Comparison of the TRMM Precipitation Radar rainfall estimation with ground-based disdrometer and radar measurements in South Greece", *Atmospheric Research*, 181, 172–185, DOI: 10.1016/j.atmosres.2016.06.023.
25. Alappattu, D. P., Wang, Q., and J. Kalogiros (2016): "Anomalous propagation conditions over eastern Pacific Ocean derived from MAGIC data", *Radio Science*, 51, 7, 1142-1156, DOI: 10.1002/2016RS005994.
26. Bossioli, E., Tombrou, M., Kalogiros, J., Allan, J., Bacak, A., Bezantakos, S., Biskos, G., Coe, H., Jones, B.T., Kouvarakis, G., Mihalopoulos, N., and C.J. Percival (2016): "Atmospheric composition in the Eastern Mediterranean: Influence of biomass burning during summertime using the WRF-Chem model", *Atmospheric Environment*, 132, 317-331, DOI: 10.1016/j.atmosenv.2016.03.011.
27. Athanasopoulou, E., Protonotariou, A.P., Bossioli, E., Dandou, A., Tombrou, M., Allan, J.D., Coe, H., Mihalopoulos, N., Kalogiros, J., Bacak, A., Sciare, J., Biskos, G., (2015): "Aerosol chemistry above an extended archipelago of the eastern Mediterranean basin during strong northern winds", *Atmospheric Chemistry and Physics*, 15, 8401-8421, DOI: 10.5194/acp-15-8401-2015.
28. Tombrou, M., E. Bossioli, J. Kalogiros, J.D. Allan, A. Bacak, G. Biskos, H. Coe, A. Dandou, G. Kouvarakis, N. Mihalopoulos, C.J. Percival, A.P. Protonotariou, B. Szabó-Takács, (2015): "Physical and chemical processes of air masses in the Aegean Sea during Etesians: Aegean-GAME airborne campaign", *Science of the Total Environment*, 506-507, 201-216, DOI 10.1016/j.scitotenv.2014.10.098.
29. Dai, C., Wang, Q., Kalogiros, J.A., Lenschow, D.H., Gao, Z., Zhou, M., (2014): "Determining Boundary-Layer height from aircraft measurements," *Boundary-Layer Meteorol.*, DOI 10.1007/s10546-014-9929-z
30. Kalogiros, J., M. N. Anagnostou, E. N. Anagnostou, M. Montopoli, E. Picciotti, and F. S. Marzano, (2014): "Evaluation of a new polarimetric algorithm for rain path attenuation correction of X-band radar observations against disdrometer," *IEEE Trans. Geosci. Remote Sens.*, 52, 2, 1369-1380, DOI: 10.1109/TGRS.2013.2250979.
31. Bezantakos, S., K. Barmounis, M. Giamarelou, E. Bossioli, M. Tombrou, N. Mihalopoulos, K. Eleftheriadis, J. Kalogiros, J. D. Allan, A. Bacak, C. J. Percival, H. Coe, and G. Biskos, (2013): "Chemical composition and hygroscopic properties of aerosol particles over the Aegean Sea," *Atmos. Chem. Phys.*, DOI:10.5194/acp-13-11595-2013, 13, 11595–11608.

32. Picciotti, E., F.S. Marzano, E.N. Anagnostou, J. Kalogiros, Y. Fessas, A. Volpi, V. Cazac, R. Pace, G. Cinque, L. Bernardini, K. De Sanctis, M. Montopoli, M.N. Anagnostou, and A. Telleschi, (2013): "Coupling X-band dual-polarized mini-radar and hydro-meteorological forecast models: the HYDRORAD project," *Natural Hazards and Earth Systems Sciences*, Special Issue on "13th Plinius Conference on Mediterranean Storms: disasters and climate change - know to adapt", DOI:10.5194/nhess-13-1-2013, 13, 1229–1241, 2013.
33. Kalogiros, J., M. N. Anagnostou, E. N. Anagnostou, M. Montopoli, E. Picciotti, and F. S. Marzano, (2013): "Correction of polarimetric radar reflectivity measurements and rainfall estimates for apparent vertical profile in stratiform rain," *J. Appl. Meteor. Climate.*, 52, 5, 1170-1186, DOI: 10.1175/JAMC-D-12-0140.1.
34. Anagnostou, M.N., J. Kalogiros, F. S. Marzano, E. N. Anagnostou, M. Montopoli, and E. Picciotti, (2013): "Performance evaluation of a new rain microphysics algorithm for dual-polarization X-band radars using long-term radar and disdrometer measurements," *J. Hydrometeor.*, 14, 560-576, DOI: 10.1175/JHM-D-12-057.1
35. Kalogiros, J., M. N. Anagnostou, E. N. Anagnostou, M. Montopoli, E. Picciotti, and F. S. Marzano, (2013): "Optimum estimation of rain microphysical parameters using X-band dual-polarization radar observables," *IEEE Trans. Geosci. Remote Sens*, 51, 5, 3063- 3076, DOI: 10.1109/TGRS.2012.2211606
36. Kalogiros, J., (2012): "Least-Squares Reconstruction of Doppler Radar Spectra for Irregular PRT," *J. Atmos. Oceanic Technol.*, 29, 1744–1756, DOI: 10.1175/JTECH-D-12-00026.1
37. Kalogiros, J.A., and Q. Wang, (2011): "Aircraft observations of sea surface turbulent fluxes near the California coast", *Boundary-Layer Meteorology*, 139, 283-306, DOI: 10.1007/s10546-010-9585-x.
38. Wang, Q., J.A. Kalogiros, S.R. Ramp, J. Paduan, G. Buzorius and H. Jonsson, (2011): "Wind stress and coastal upwelling in the area of Monterey Bay observed during AOSN-II", *Journal of Physical Oceanography*, DOI: 10.1175/2010JPO4305.1.
39. Anagnostou, M.N., J.A. Kalogiros, E.N. Anagnostou, M. Tarolli, A. Papadopoulos and M. Borga, (2010): "Performance evaluation of high resolution rainfall estimation by X-band dual polarization radar for flash flood applications in mountainous basins", *Journal of Hydrology-Special issue on flash flood*, **394**, 1-2, 4-16.
40. Anagnostou, M.N., J.A. Kalogiros, E.N. Anagnostou and A. Papadopoulos (2009): "Experimental Results on Rainfall Estimation in Complex Terrain with a Mobile X-band Polarimetric Weather Radar", *Atmospheric Research*, **94**, 4, 579-595.
41. Buzorius G., J. Kalogiros and T. Varutbangkul, (2006): "Airborne aerosol flux measurements with eddy-correlation above the ocean in a coastal environment", *Journal of Aerosol Science*, 37, 1267-1286.
42. Helmis, C.G, Q. Wang, G. Katsouvas, Z. Gao, C.H. Halios, J.A. Kalogiros, S. Wang, G. Sgouros and J. Edson, (2006): On the turbulent structure of the

marine atmospheric boundary layer from the CBLAST Nantucket measurements. *Global NEST Journal*, Vol 8, No 3, 210-217.

43. Kalogiros, J.A., and Q. Wang, (2002): "Aerodynamics effects on wind turbulence measurement with research aircraft", *Journal of Atmospheric and Oceanic Technology*, Vol. 19, 1567-1576.
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1. Papangelis G., J. Kalogiros, D. Katsanos D., and A. Retalis (2021): "A 4D-Var radar data assimilation scheme for nowcasting of local extreme weather", *15th International Conference of Meteorology, Climatology and Atmospheric Physics (COMECAP 2021)*, Ioannina, Greece, 26-29 September 2021.
2. Ortiz-Suslow, D.G., J. Kalogiros, R. Yamaguchi, and Q. Wang (2021): "The prevalence of the constant flux layer over the ocean", 5.1A session, *101st American Meteorological Society Annual Meeting (Virtual)*, 10-15 January 2021.
3. Wang, Q., R. Yamaguchi, J. Kalogiros, Z. Daniels, D. P. Alappattu, H. Jonsson, O. Alvarenga, A. Olson, B. Wauer, D. G. Ortiz-Suslow and H. J. Fernando, (2020): Microphysics and optical attenuation in coastal fog, *AGU Fall Meeting 2020*, A089-0005, 1-17 December 2020, San Francisco, CA, United States
4. Katsafados, P., C. Spyrou, G. Varlas, A. Pappa, A. Mentzafou, A. Papadopoulos, M.N. Anagnostou, J. Kalogiros (2020): Nowcasting an extreme flash flood event: The case of Mandra, Greece, *7th International Conference on Civil Protection and New Technologies, Safe Greece 2020*, 14-16 October, Thessaloniki, Greece.
5. Ortiz-Suslow, D.G., Q. Wang, J. Kalogiros, R. Yamaguchi, D. Alappattu, A. Olson, P. Welch, R. K. Shearman, I. Savelyev, S. Celona, T. de Paolo, and E. Terrill (2020): The Atmospheric Surface Layer Response to Nonlinear Internal Ocean Waves, *2020 Ocean Sciences Meeting, AI24A-2308, AGU*, 16-21 February 2020, San Diego, CA, United States.
6. Yamaguchi, R. T., Q. Wang, J. A. Kalogiros, and O. Alvarenga (2020): "Spatial variabilities of optical turbulence observations measured at the High Energy Laser System test facility", session PTu4F.4, *Optical Sensors and Sensing Congress*, OSA Technical Digest (Optical Society of America, 2020), Washington, DC USA, 22–26 June 2020, ISBN: 978-1-943580-78-1.
7. Wang, Q., D. Ortiz-Suslow, B. J. Wauer, R. T. Yamaguchi, and J. A. Kalogiros (2020): "Atmospheric optical turbulence and inertial subrange spectra over the ocean", session PM1D, *Optical Sensors and Sensing Congress*, OSA Technical Digest (Optical Society of America, 2020), Washington, DC USA, 22–26 June 2020, ISBN: 978-1-943580-78-1.

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10. Ortiz-Suslow, D. G., Q. Wang, J. Kalogiros, R. Yamaguchi, S. Celona, T. de Paolo, E. Terrill, R. Kipp Shearman, P. Welch, I. Savelyev (2019): Quantifying the Impact of Nonlinear Internal Waves on the Marine Atmospheric Surface Layer, *2019 IEEE/OES Twelfth Current, Waves and Turbulence Measurement (CWTM)*, San Diego, CA, USA, 2019, pp. 1-9, doi: 10.1109/CWTM43797.2019.8955282.
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