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Current academic position

Professor on Atmosphere and Climate Dynamics, Harokopio University of Athens, Greece (HUA).

Academic career

2016-2022	Associate Professor, Geography Department, HUA
2011-2016	Assistant Professor, Geography Department, HUA
2007-2011	Lecturer, Geography Department, HUA
2001-2007	Laboratory Staff, Department of Physics, National and Kapodistrian University of Athens (NKUA)
1997-2007	Research associate at the Atmospheric Modelling and Weather Forecasting Group, Department of Physics, NKUA

Education

BSc in Mathematics, NKUA, 1993.

MSc in Environmental Physics, Department of Physics, NKUA, 1996.

PhD in Atmosphere Dynamics and Modelling, Department of Physics, NKUA, 2003.

Research topics

- Atmosphere and climate dynamics and modelling
- Data assimilation and nowcasting
- Air-Sea-Land interactions
- Extreme weather phenomena
- Marine meteorology
- Wind and solar energy applications

Teaching experience

Over 20 years teaching experience in undergraduate and graduate courses at the Harokopio University of Athens (HUA), the National and Kapodistrian University of Athens (NKUA), the National Technical University of Athens (NTUA) and the Technological Education Institute (TEI) of Piraeus.

List of graduated PhD advisees

1. George Varlas, Dr.
Thesis title “*Development of an integrated modeling system for simulating the air-ocean wave interactions*”, June 2017.
2. Tsarpalis Konstantinos, Dr.
Thesis title “*Desert dust interactions with the atmospheric environment: The dust aerosols’ role on cloud nucleation and precipitation*”, May 2020.

Major advisor in more than 60 MSc and BSc theses.

Publications synopsis

Dissertations	2
Text books and contribution to book chapters	5
Contribution to special editions	10
Publications in international peer review journals	40
Publications in conference proceedings	88
Participation in funded research projects	39

h-index and citation overview

h-index: 18; 1428 total citations (<http://www.scopus.com> at Dec 19, 2022).

Overview of the peer-reviewed publications in open databases

- <http://www.scopus.com/authid/detail.url?authorId=6507078046>
- <https://scholar.google.gr/scholar?hl=el&q=katsafados&btnG=>

Dissertations

1. Katsafados P., 1996: “A study for the dispersion and diffusion of the air pollutants in Eordaia Basin”. MSc. Dissertation in Environmental Physics, Department of Physics, National and Kapodistrian University of Athens, Greece.
2. Katsafados, P., 2003: “Factors and parameterizations contributing the medium range forecast skill of the limited area models”. PhD Dissertation, Department of Physics, National and Kapodistrian University of Athens, Greece.

Text books and contribution to book chapters

1. Manousakis, M., T. Charandonis, G. Sakellaridis, J. Papageorgiou, E. Anadranistakis, G. Alexiou, P. Fragouli, D. Sgouros, G. Konstantinidis, N. Mimikou, A. Karachristou, S. Nickovic, P. Katsafados, and A. Papadopoulos, 1998: The Weather Forecasting System SKIRON, Vol. V: Post-processing. Graphics, ISBN 960-8468-19-1.
2. Katsafados, P., A. Papadopoulos, G. Kallos, and S. Nickovic, 2000: The Weather Forecasting System POSEIDON”, Vol. I: Preprocessing and Operational Manual.
3. Nickovic, S., B. Rajkovic, A. Papadopoulos, P. Katsafados, and G. Kallos, 2000: The Weather Forecasting System POSEIDON”, Vol. II: Description of the model.
4. Parcharidis I., M. Fournelis and P. Katsafados. “Seasonal ground deformation monitoring over Southern Larissa Plain (Central Greece) by SAR interferometry”. Advances in the Research of Aquatic Environment, N. Lambrakis et al. (Eds.), Vol. 2, doi 10.1007/978-3-642-24076-8, Springer-Verlag Berlin Heidelberg, 2011.
5. Katsafados P., E. Papadopoulou, A. Papadopoulos and E. Mavromatidis, 2012: “Seasonal forecasts for the 2010 Russian heat wave using an Atmospheric General Circulation Model”. Advances in Meteorology, Climatology and Atmospheric Physics, Helmis C. and P. Nastos, (eds.), 2012, Springer, Vol. I, pp. 187-194, ISBN: 978-3-642-29171-5.
6. Papadopoulos A., P. Katsafados and I. Pytharoulis, 2012: “High resolution gridded meteorological data across the Mediterranean basin”. Advances in Meteorology, Climatology and Atmospheric Physics, Helmis C. and P. Nastos, (eds.), 2012, Springer, Vol. I, pp. 187-194, ISBN: 978-3-642-29171-5.
7. Varlas G., P. Katsafados, and A. Papadopoulos, 2016: “Temperature seasonal predictability of the WRF model”. Perspectives on Atmospheric Sciences, Karacostas T.S., A.F. Bais and P. T. Nastos, (eds.), Springer, Vol. I, pp. 75-80, ISBN 9783319350943.
8. Tsarpalis K., A. Papadopoulos and P. Katsafados, 2016: “The implementation of a dust wet deposition scheme in the WRF-Chem model”. Perspectives on Atmospheric

- Sciences, Karacostas T.S., A.F. Bais and P. T. Nastos, (eds.), *Springer*, Vol. I, pp. 69-74, ISBN 9783319350943.
9. Katsafados, P., G. Varlas, A. Papadopoulos, and G. Korres, 2016: "Implementation of a hybrid surface layer parameterization scheme for the coupled Atmosphere–Ocean Wave modeling system (WEW)". *Perspectives on Atmospheric Sciences*, Karacostas T.S., A.F. Bais and P. T. Nastos, (eds.), *Springer*, Vol. I, pp. 159-166, ISBN 9783319350943.
 10. Pytharoulis I. and P. Katsafados, (eds.), 2021: "Climate and atmospheric dynamics and predictability", Printed edition of the Special Issue published in *Climate Journal*, *MDPI*, ISBN 9783036502243.

List of publications in international peer review journals

1. Korres, G., A. Lascaratos, E. Hatzia Apostolou, and P. Katsafados, 2002: "Towards an ocean forecasting system for the Aegean Sea". *Global Atmosphere and Ocean System*, **8**, 191-218, (32 αναφορές).
2. Papadopoulos, A., P. Katsafados, G. Kallos, and S. Nickovic, 2002: "The weather forecasting system for POSEIDON-An overview". *Global Atmosphere and Ocean System*, **8**, 219-237, (84 αναφορές).
3. Ranmar, D. O., V. Matveev, U. Dayan, M. Peleg, J. Kaplan, A. W. Gertler, M. Luria, G. Kallos, P. Katsafados, and Y. Mahrer, 2002: "Impact of coastal transportation emissions on inland air pollution over Israel: Utilizing numerical simulations, airborne measurements, and synoptic analyses". *Journal of Geophysical Research*, **107**, 5.1-5.14, (5 αναφορές).
4. Erel, Y., T. Axelrod, A. Veron, Y. Mahrer, P. Katsafados, and U. Dayan, 2002: "Transboundary atmospheric lead pollution". *Environmental Science and Technology*, **36**, No.15, 3230-3233, (33 αναφορές).
5. Katsafados, P., A. Papadopoulos, and G. Kallos, 2005: "Regional Atmospheric Response to Tropical Pacific SST Perturbations". *Geophysical Research Letters*, **32**, L04806, doi: 10.1029/2004GL021828, (7 αναφορές).
6. Kallos, G., A. Papadopoulos, P. Katsafados, and S. Nickovic, 2005: "Trans-Atlantic Saharan dust transport: Model simulation and results". *Journal of Geophysical Research-Atmosphere*, **111**, D09204, doi: 10.1029/2005JD006207, (105 citations).
7. Galanis, G., P. Louka, P. Katsafados, I. Pytharoulis, and G. Kallos, 2006: "Applications of Kalman filters based on non-linear functions to numerical weather predictions". *Annales Geophysicae*, **24**, 2451–2460, (78 αναφορές).
8. Kallos G., M. Astitha, and P. Katsafados, 2007: "Long-Range Transport of Anthropogenically and Naturally Produced PM in the Mediterranean and North Atlantic: Present Status of Knowledge". *Journal of Applied Meteorology and Climatology*, **46**, No.8, 1230-1251, (140 αναφορές).
9. Kishcha P., P. Alpert, A. Shtivelman, S.O. Krichak, J.H. Joseph, G. Kallos, P. Katsafados, C. Spyrou, G.P. Gobbi, F. Barnaba, S. Nickovic, C. Perez, and J.M. Baldasano, 2007: "Forecast errors in dust vertical distributions over Rome (Italy): Multiple particle size representation and cloud contributions". *Journal of Geophysical Research-Atmosphere*, **112**, D15205, doi:10.1029/2006JD007427, (22 αναφορές).
10. Shilo E., Y. Ashkenazy, A. Rimmer, S. Assouline, P. Katsafados, Y. Mahrer, 2007: "Effect of wind variability on topographic waves: Lake Kinneret case". *Journal of Geophysical Research-Atmosphere*, **112**, C12024, doi:10.1029/2007JC004336, (16 αναφορές).
11. Karagiorgos G., P. Katsafados, A. Kontarinis, N. M. Missirlis, and F. Tzaferis, 2008: "Load Balancing for the Numerical Solution of the Navier-Stokes Equations". *Lecture Notes in Computer Science (LNCS)*, **4699**, Springer, doi:10.1007/978-3-540-75755-9, pp. 764-773.
12. Astitha M., G. Kallos and P. Katsafados, 2008: "Air pollution modeling in the Mediterranean Region: Analysis and forecasting of episodes". *Atmospheric Research*, **89** (4), pp. 358–364, (31 αναφορές).

13. Louka, P., G. Galanis, N. Siebert, G. Kariniotakis, P. Katsafados, G. Kallos, and I. Pytharoulis, 2008: "Improvements in wind speed forecasts for wind power prediction purposes using Kalman filtering". *Wind Engineering and Industrial Aerodynamics*, **96** (12), pp. 2348– 2362, (317 αναφορές).
14. Cai, C., C. Hogrefe, P. Katsafados, G. Kallos, M. Beauharnois, J.J. Schwab, X. Ren, W.H. Brune, X. Zhou, Y. He, K.L. Demerjian., 2008: "Performance Evaluation of an Air Quality Forecast Modeling System for a Summer and Winter Season - Photochemical Oxidants and Their Precursors". *Atmospheric Environment*, doi: 10.1016/j.atmosenv.2008.08.029, (24 αναφορές).
15. Kallos G., C. Spyrou, M. Astitha, C. Mitsakou, S. Solomos, J. Kushta, I. Pytharoulis, P. Katsafados, E. Mavromatidis, N. Papantoniou and G. Vlastou, 2009: "Ten-year operational dust forecasting - Recent model development and future plans". *IOP Conf. Series: Earth and Environmental Science*, **7**, 012012, doi:10.1088/1755-1307/7/1/012012.
16. Papadopoulos A. and P. Katsafados, 2009: "Verification of operational weather forecasts from the POSEIDON system across the Eastern Mediterranean". *Natural Hazards and Earth System Science*, **9**, 4, pp. 1299-1306, (40 αναφορές).
17. Katsafados P., A. Papadopoulos, E. Mavromatidis and I. Pytharoulis, 2011: Numerical simulation of a deep Mediterranean storm and its sensitivity on sea surface temperature. *Natural Hazards and Earth System Science*, **11**, 1233–1246, doi:10.5194/nhess-11-1233-201, (29 αναφορές).
18. Papadopoulos A., G. Korres, P. Katsafados, D. Ballas, L. Perivoliotis and K. Nittis, 2011: "A dynamic downscaling of the ERA-40 data using a mesoscale meteorological model". *Mediterranean Marine Science*, **12**, 1, 183-198, (9 αναφορές).
19. Korres G., A. Papadopoulos, P. Katsafados, D. Ballas, L. Perivoliotis and K. Nittis, 2011: "A 2-year intercomparison of the WAM-CYCLE4 and the WAVEWATCH-III wave models implemented within the Mediterranean Sea". *Mediterranean Marine Science*, **12**, 1, 129-152, (21 αναφορές).
20. Karymbalis E., P. Katsafados, C. Chalkias and K. Gaki-Papanastasiou, 2012: "An Integrated study for the evaluation of natural and human induced flood causes in small catchments based on geomorphological – meteorological data and modeling techniques: The case of Xerias torrent (Corinth, Greece)". *Zeitschrift fur Geomorphologie*, **56**, 45-67, doi:10.1127/0372-8854/2012/S-00072, (16 αναφορές).
21. Katsafados P., S. Kalogirou, A. Papadopoulos, and G. Korres, 2012: "Mapping long-term atmospheric variables over Greece", *Journal of Maps* **8** (2), pp. 181-184, (11 αναφορές).
22. Katsafados, P., Papadopoulos, A., Varlas, G., Papadopoulou, E., and Mavromatidis, E.: "Seasonal predictability of the 2010 Russian heat wave", *Nat. Hazards Earth Syst. Sci.*, **14**, 1531-1542, doi:10.5194/nhess-14-1531-2014, 2014, (20 αναφορές).
23. Karalis S., E. Karymbalis, K. Valkanou, C. Chalkias, P. Katsafados, K. Kalogeropoulos, V. Batzakis, and A. Bofilios A., 2014: "Assessment of the relationships among catchments' morphometric parameters and hydrologic indices". *International Journal of Geosciences (IF: 0.79)*, **5** (13), 1571-1583, doi:10.4236/ijg.2014.513128.
24. Christakos, K., G. Varlas, J. Reuder, P. Katsafados, and A., Papadopoulos, 2014: "Analysis of a Low-level Coastal Jet off the Western Coast of Norway". *Energy Procedia (SNIP: 0.786)*, **53**, 162-172, (16 αναφορές).
25. Katsafados P., A. Papadopoulos, G. Korres, and G. Varlas, 2016: "A fully coupled Atmosphere–Ocean Wave modeling system (WEW) for the Mediterranean Sea: interactions and sensitivity to the resolved scales and mechanisms". *Geoscientific Model Development*, **9**(1), 161-173, doi: 10.5194/gmd-9-161-2016, (26 αναφορές).
26. Tsanakas K., K. Gaki-Papanastasiou, K. Kalogeropoulos, C. Chalkias, P. Katsafados and E. Karymbalis, 2016: "Investigation of flash flood natural causes of Xirolaki Torrent, Northern Greece based on GIS modeling and geomorphological analysis". *Natural Hazards*, 2016, 84(2), 1015–1033, (11 αναφορές).
27. Varlas G., P. Katsafados, A. Papadopoulos, and G. Korres, 2018: "Implementation of a two-way coupled atmosphere-ocean wave modeling system for assessing air-sea

- interaction over the Mediterranean Sea”. *Atmospheric Research*, 208, 201-217, doi: 10.1016/j.atmosres.2017.08.019 (31 αναφορές).
28. Katsafados P., G. Varlas, A. Papadopoulos, C. Spyrou, and G. Korres, 2018: “Assessing the implicit rain impact on sea state during hurricane Sandy (2012)”. *Geophysical Research Letters*, 45, 12015-12022, doi: 10.1029/2018GL078673, (12 αναφορές).
 29. Tsarpalis K., A. Papadopoulos, N. Mihalopoulos, C. Spyrou, S. Michaelides and P. Katsafados, 2018: “The Implementation of a Mineral Dust Wet Deposition Scheme in the GOCART-AFWA Module of the WRF Model”. *Remote Sensing*, 10, 1595, doi.org/10.3390/rs10101595, (5 αναφορές).
 30. Varlas G., A. Papadopoulos, and P. Katsafados, 2019: “An analysis of the synoptic and dynamical characteristics of hurricane Sandy (2012)”. *Meteorology and Atmospheric Physics*, 131(3), 443-453, doi: 10.1007/s00703-017-0577-y, (6 αναφορές).
 31. Mentzafou A., G. Varlas, E. Dimitriou, A. Papadopoulos, I. Pytharoulis, and P. Katsafados, 2019: “Modeling the Effects of Anthropogenic Land Cover Changes to the Main Hydrometeorological Factors in a Regional Watershed, Central Greece”. *Climate*, 7(11), 129, doi: 10.3390/cli7110129, (10 αναφορές).
 32. Varlas G., M. 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 Sensing*, 11(1), 45, doi: 10.3390/rs11010045, (30 αναφορές).
 33. Varlas G., P. Katsafados, G. Korres, and A. Papadopoulos, 2019: “Assessing the impact of Argo float temperature measurements on the forecast skill of a weather prediction numerical model”. *Mediterranean Marine Science*, 20(2), 331-341, doi: 10.12681/mms.15423, (6 αναφορές).
 34. Varlas G., V. Vervatis, C. Spyrou, E. Papadopoulou, A. Papadopoulos, and P. Katsafados, 2020: “Investigating the impact of atmosphere–wave–ocean interactions on a Mediterranean tropical-like cyclone”. *Ocean Modelling*, 153, 101675, doi: 10.1016/j.ocemod.2020.101675, (5 αναφορές).
 35. Spyrou C., G. Varlas, A. Pappa, A. Mentzafou, P. Katsafados, A. Papadopoulos, M.N. Anagnostou, and J. Kalogiros, 2020: “Implementation of a nowcasting hydrometeorological system for studying flash flood events: The Case of Mandra, Greece”. *Remote Sensing*, 12(17), doi: 10.3390/RS12172784, (8 αναφορές).
 36. Varlas G., C. Spyrou, A. Papadopoulos, G. Korres, and P. Katsafados, 2020: “One-year assessment of the two-way coupled atmosphere-ocean wave modeling system CHAOS over the Mediterranean and Black Seas”. *Mediterranean Marine Science*, 21(2), 372-385, doi: 10.12681/mms.21344, (7 αναφορές).
 37. Tsarpalis K., P. Katsafados, A. Papadopoulos and N. Mihalopoulos, 2020: “Assessing Desert Dust Indirect Effects on Cloud Microphysics through a Cloud Nucleation Scheme: A Case Study over the Western Mediterranean”. *Remote Sensing*, 12, 3473, doi:10.3390/rs12213473, (1 αναφορά).
 38. Papaioannou G., G. Varlas, A. Papadopoulos, A. Loukas, P. Katsafados, and E. Dimitriou, 2021: “Investigating sea-state effects on flash flood hydrograph and inundation forecasting”. *Hydrological Processes*, 35(4), e14151, doi: 10.1002/hyp.14151, (1 αναφορά).
 39. Varlas G., E. Marinou, A. Gialitaki, N. Siomos, K. Tsarpalis, N. Kalivitis, S. Solomos, A. Tsekeri, C. Spyrou, M. Tschla, A. Kampouri, V. Vervatis, E. Giannakaki, V. Amiridis, N. Mihalopoulos, A. Papadopoulos, and P. Katsafados, 2021: “Assessing sea-state effects on sea-salt aerosol modeling in the lower atmosphere using lidar and in-situ measurements”. *Remote Sensing*, 13(4), 614, doi: 10.3390/rs13040614, (1 αναφορά).
 40. Hu J., Y. Bao, J. Liu, H. Liu, G. Petropoulos, P. Katsafados, L. Zhu, and X. Cai, 2021: “Temperature and Relative Humidity Profile Retrieval from Fengyun-3D/HIRAS in the Arctic Region”. *Remote Sensing*, 13(10), 1884, doi:10.3390/rs13101884.

Invited speaker in conferences and workshops

1. Katsafados P., M.M. Miglietta, E. Gregow, A. Sairouni, J. More, J. Markovic, A. Papadopoulos, A. Tiesi, V. Capecchi and T. Janjic-Pfander, 2014: “The European LAPS (ELAPS) activities related with nowcasting techniques and methods”. 1st European Nowcasting Conference, EUMETNET, ZAMG: Central Institute for Meteorology and Geodynamics, 29-30 April 2014, Wien, Austria.
2. Katsafados P., G. Varlas, C. Spyrou, V.M Nomikou, A. Papadopoulos and G. Korres, 2017: “The impact of rain on ocean wave evolution and its feedback to the atmosphere”. 1st Coastal Hydrology and Surface Processes linked to Air/Sea Modeling, 26 – 27 September 2017, Madeira Isl, Spain.
3. Katsafados P., 2018: “Hydrometeorological hazards and their impact on sites of cultural heritages”. Conference & Seminar on Disaster Plan in Cultural Institutions, 7 September 2018, Heraklion, Crete.
4. Spyrou C., G. Varlas, E. Papadopoulou, H. Alkalbani, R. Job, K. Pavlopoulos and P. Katsafados, 2019: “The Sorbonne University Atmospheric Forecasting System (SUAFS): current status and future perspectives”. Sorbonne Series of Conferences, 24 February 2019, Abu Dhabi, UAE.

Publications in Conference Proceedings

1. Papadopoulos, A., G. Kallos, S. Nickovic, D. Jovic, M. Dacic, and P. Katsafados, 1997: “Sensitivity studies of the surface and radiation parameterization schemes of the Skiron system”. *Proceedings of the Symposium on Regional Weather Prediction on Parallel Computer Environments*, 15-17 October 1997, Athens, Greece, pp. 155-164.
2. Kallos, G., A. Papadopoulos, and P. Katsafados, 2000: “The POSEIDON weather forecasting system”. *6th Hellenic Symposium on Oceanography and Fisheries*, 23-26 May 2000, Chios, Greece, pp. 387-391.
3. Papadopoulos, A., K. Nittis, and P. Katsafados, 2000: “Evaluation of the Meteorological forecasting of the POSEIDON system”. *6th Hellenic Symposium on Oceanography and Fisheries*, 23-26 May 2000, Chios, Greece, pp. 392-396.
4. Kallos, G., A. Voudouri, I. Pytharoulis, and O. Kakaliagou, E. Mavromatidis, M. Varinou, F. Gofa, P. Katsafados, F. Sprovieri, and P. Costa, 2001: “Atmospheric mercury in the Mediterranean Region: A source-receptor relationship study”. *4th Open Science meeting of the European Land-Ocean Interaction Studies (ELOISE)*, 5-7 September 2001, University of Calabria, Rende, Italy, pp. 96.
5. Cai, C., C. Hogrefe, J. Biswas, S.T. Rao, N. Seaman, A. Gibbs, G. Kallos, P. Katsafados, C. Walcek, J. Chang, and K. L. Demerjian, 2002: “An experimental air quality forecast modeling system (AQFMS) for the northeast United states: a demonstration study”. *4th Annual Conference on Atmospheric Chemistry: Urban, Regional and Global-Scale Impacts of Air Pollutants*, 82nd American Meteorological Society Annual Meeting, January 13-17, 2002, Orlando Florida, pp. 47-52.
6. Kallos, G., A. Papadopoulos, and P. Katsafados, 2003: “Model derived seasonal amounts of dust deposited on Mediterranean Sea and Europe”. *Building the European Capacity in Operational Oceanography, 3rd EuroGOOS Conference*, 3-6 December 2002, Athens, Greece, ISBN 0 444 51550 X, ISSN 0422 9894, pp. 57-63.
7. Papadopoulos, A., L. Perivoliotis, K. Nittis, and P. Katsafados, 2003: “Evaluation of Poseidon forecasts in the Aegean Sea for a three-year period”. *Building the European Capacity in Operational Oceanography, 3rd EuroGOOS Conference*, 3-6 December 2002, ISBN 0 444 51550 X, ISSN 0422 9894, Athens, Greece, pp. 64-70.
8. Volpe, G., R. Sciarra, G. Liberti, F. D'Ortenzio, R. Santoleri, A. Papadopoulos, P. Katsafados, and G. Kallos, 2003: “Satellite observations of Saharan dust events in the Mediterranean and its effect on surface phytoplankton biomass”. *Proceedings of SPIE - Volume 4880, Remote Sensing of the Ocean and Sea Ice* 2002, February 2003, pp. 40-51, doi:10.1117/12.465158.
9. Papadopoulos, A., P. Katsafados, G. Kallos, S. Nickovic, S. Rodriguez, and X. Querol, 2003: “Contribution of desert dust transport to air quality degradation of urban

- environments. Recent model developments". *26th NATO/CCMS ITM on Air Pollution Modeling and its Application*, 26-30 May 2003, Istanbul, Turkey, ISBN 0-306-48464-1, pp. 279-286.
10. Astitha, M., Kallos, G., Katsafados, P., and Pytharoulis I., 2004: "Production and transformation of anthropogenic and natural aerosols in the Mediterranean Region". *13th World Clean Air and Environmental Protection*, 22-27 August 2004, London, UK.
 11. Pytharoulis, I., P. Katsafados, K. Koutsoulis, G. Galanis, G.Emmanouil, and G. Kallos, 2005: "Air-sea interaction processes during extreme weather events in the Mediterranean region". *Geophysical Research Abstracts*, Vol. 7, 09505, European Geosciences Union General Assembly, 24-29 April 2005, Vienna, Austria.
 12. Kallos, G., I. Pytharoulis, P. Katsafados, P. Louka, and G. Galanis 2005: "Limited area weather forecasting for the MFSTEP activities: Sensitivity and performance analysis". *4th EuroGOOS Conference*, 6-9 June 2005, Brest, France.
 13. Kallos, G., P. Katsafados, C. Spyrou, and A. Papadopoulos, 2005: "Desert dust deposition over the Mediterranean Sea estimated with the SKIRON/Eta". *4th EuroGOOS Conference*, 6-9 June 2005, Brest, France.
 14. Kallos, G., S. Sofianos, I. Pytharoulis, P. Katsafados, and N. Skliris, 2005: "Limited area atmosphere/ocean forecasting system for the East Mediterranean MFSTEP activities: Performance Analysis". *International Ocean Research Conference*, 6-10 June 2005, Paris, France.
 15. Kallos, G., M. Astitha, P. Katsafados, and F. Gofa, 2005. "PM and O₃ patterns in South Europe and Mediterranean: From Mesoscale to Regional". *1st International Conference on Air Pollution and Combustion – CAPAC*, 22-25 June 2005, Ankara, Turkey.
 16. Louka, P., G. Galanis, N. Siebert, G. Kariniotakis, P. Katsafados, G. Kallos, and I. Pytharoulis, 2005: "Improvements in wind speed forecasts for wind power prediction purposes using Kalman filtering". *5th International Conference on Computational and Mathematical Methods in Science and Engineering*, 27-30 June 2005, Alicante, Spain.
 17. Kallos, G., P. Katsafados, M. Astitha, A. Papadopoulos, and C. Spyrou, 2005. "Saharan dust transport towards the Euro-Mediterranean Region and its implications to air quality, ecosystems, and climate". *International Association of Meteorology and Atmospheric Sciences (IAMAS)*, 2-11 August 2005, Beijing, China.
 18. Kallos, G., M. Astitha, and P. Katsafados, 2005: "Air pollution modeling in the Mediterranean Region: From analysis of episodes to forecasting". *3rd International Symposium on Air Quality Management at Urban and Global Scales*, 26-30 September 2005, Istanbul, Turkey, ISBN 975-00331-1-6, pp. 441-449.
 19. Astitha, M., P. Katsafados and G. Kallos, 2005: "Air quality degradation in the Mediterranean urban regions from anthropogenic and natural particulate". *10th International Conference on Harmonisation within Atmospheric Dispersion Modeling for Regulatory Purposes*, 17-20 October 2005, Heraklion Crete, Greece, ISBN 960-233-166-6, pp. 213-217.
 20. Astitha M., G. Kallos, P. Katsafados, I. Pytharoulis, and N. Mihalopoulos, 2006: "Radiative effects of natural PMs on photochemical processes in the Mediterranean region". *28th NATO/CCMS International Technical Meeting on Air Pollution Modeling and its Applications*, 15-19 May 2006, Leipzig, Germany, pp. 27-34 (preprints).
 21. Kallos G, M. Astitha, P. Katsafados C. Spyrou, and E. Mavromatidis, 2007: "Saharan dust transport and its impact on air quality, ecosystems and regional climate". 2007, *XXIV IUGG General Assembly*, 2-13 July 2007, Perugia, Italy, ISBN: 978-88-95852-25-4, pp. 185.
 22. Astitha M., G. Kallos and P. Katsafados, 2007: "Impacts of desert dust on photochemical processes". 2007, *XXIV IUGG General Assembly*, 2-13 July 2007, Perugia, Italy, ISBN: 978-88-95852-25-4, pp. 234.
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- Geographical Society*, Faculty of Geology & Geoenvironment, 4-7 October 2007, Athens, Vol. 2, pp. 117-126.
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 83. Katsafados P., C. Spyrou, G. Varlas, A. Pappa, A. Mentzafou, A. Papadopoulos, M. Anagnostou and J. Kalogiros, 2020: “Nowcasting an extreme flash flood event: The case of Mandra, Greece”. *7th International Civil Protection Conference and New Technologies (SafeGreece 2020)*, 14-16 October 2020, online, Athens, Greece.
 84. Papadopoulou E., C. Spyrou, G. Varlas, V. Vervatis, A. Papadopoulos and P. Katsafados, 2021. “Assessing two-way air-sea coupling in a deep Mediterranean cyclone”. *15th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2021)*, 26 – 29 September 2021, Ioannina, Greece.
 85. Pappa A., C. Spyrou, M. Anagnostou, G. Varlas, A. Papadopoulos and P. Katsafados, 2021. “An advanced scheme for nowcasting precipitation and its sensitivity to the assimilated remote sensing estimations”. *15th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2021)*, 26 – 29 September 2021, Ioannina, Greece.
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 87. Varlas G., V. Vervatis, C. Spyrou, E. Papadopoulou, A. Papadopoulos and P. Katsafados, 2021: “Physical and dynamical considerations of three-way atmosphere-wave-ocean coupling”. *15th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2021)*, 26 – 29 September 2021, Ioannina, Greece.
 88. Drakaki E., V. Amiridis, J. Gasteiger, S. Solomos, A. Gialitaki, A. Tsekeri, S. Mallios, and P. Katsafados, 2021: “Effects of particle shape on dust transport processes”. *15th International Conference on Meteorology, Climatology and Atmospheric Physics (COMECAP 2021)*, 26 – 29 September 2021, Ioannina, Greece.

Selected list of projects participating as coordinator or associate researcher

1. 1996-1998: Atmospheric circulation and dispersion of air pollutants affected the Western Macedonia and released from local and distant sources, GSRT-PENED 1864.
2. 1997-2000: Supply, Installation and Operation of a System of Floating Oceanographic Measurement Stations for the Monitoring and Forecasting of the Greek Seas (POSEIDON Project), Financial Mechanism of the European Economic Area-EFTA.
3. 2000-2003: Subgrid-scale Investigation of Factors Determining the Occurrence of Ozone and Fine Particles (SUB-AERO), DG-XII of EU (Contract # EVK2-1999-00052)

4. 2001-2004: Atmospheric Deposition and Impact of Pollutants, Key Elements and Nutrients on the Mediterranean Sea (ADIOS), DG-XII of EU (Contract # EVK3-CT-2000- 00035).
5. 2002-2005: Development and Application of Validated Geophysical Ocean Wave Products from ENVISAT ASAR and RA-2 Instruments (EnviWave), Energy, Environment and Sustainable Development (EESD) (Contract #EVG2-2001-00017).
6. 2003-2006: An integrated system for monitoring and forecasting of the ocean waves for supporting the Greek marine shipping (ESPEN), GSRT-32, 4.5.1.
7. 2005-2007: Prognostic systems of the dust cycle originated from Sahara and Gobi deserts in the atmosphere. Comparing evaluation of the two systems, Greece-China bilateral cooperation (GSRT 2005), 120-c, 4.3.6.1.c.
8. 2012-2014: MyWave: A pan-European concerted and integrated approach to operational wave modelling and forecasting – a complement to GMES MyOcean services, Subcontract from HCMR (KA00220), FP7-SPACE-2011-1/CP-FP, SPA.2011.1.5-03.
9. 2013-2015: GreekARGO infrastructure for monitoring of Oceans, ESPA MIS380214.
10. 2018-2020: Hellenic Integrated Marine and Inland Water Observing, Forecasting and Offshore Technology System (HIMIOFoTS), ESPA2014-2020 (5002739).
11. 2018-2020: Ionian-Adriatic earLy wARning Monitoring System (i-ALARMS), Interreg-IPA CBC, Greece-Albania.
12. 2021-2022: Air Dust Sources in UAE: Understanding Processes that Control Spatial Distributions of Dust Emissions, Sorbonne University at Abu Dhabi (SUAD) Grant.