

- Emmanouil Proestakis -
 Postdoctoral Researcher
 IAASARS/NOA
proestakis@noa.gr



- CV and Achievements -

First Name:	Emmanouil
Surname:	Proestakis
Scientific Area:	Environmental Physics
Occupation/Position:	Postdoctoral Researcher - Google Scholar
Affiliation:	National Observatory of Athens (NOA) Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS) Vas. Pavlou & I. Metaxa, GR-15 236 Penteli, Greece.

Date of Birth:	27/05/1985	
Place of Birth	Mytilene-Lesvos Island	
Residence:	Street:	Nikou Andrianaki
	Number:	3
	Region and City:	Chania - Crete
	Post Code:	73100
	Landline:	-

Mobile Phone:	0030 6946 209395
Email:	proestakis@noa.gr
Tax Identification Number:	130443488
Identity Card Number:	AE471128
Nationality:	Greek
Ethnicity:	Hellenic
Father's First Name / Surname	Spyridon Proestakis

LinkedIn:	https://www.linkedin.com/in/emmanouil-proestakis/
ResearchGate:	https://www.researchgate.net/profile/Emmanouil-Proestakis
ORCID:	https://orcid.org/0000-0002-4946-5007
Web:	https://react.space.noa.gr/component/content/article.html?id=45&Itemid=101

Profile Summary, Research Interests, and Scientific Achievements

Dr. Emmanouil Proestakis (EP), born in May 1985, graduated from the [Applied Mathematics and Physics Department](#) of the National Technical University of Athens ([NTUA](#)) in 2011. He received his M.Sc. in the field of “Environmental Physics” from the [Institute of Environmental Physics \(IUP\)](#) of the [University of Bremen](#) (Germany) in late 2013, where he also worked as academic assistant for ~18 months ([IUP](#)). Accordingly, he acquired his Ph.D. diploma from the Section of Applied Physics of the [Physics Department](#) of the University of Patras ([UoP](#)) in mid-2018.

Since 2014 he is conducting research at the Institute for Environmental Research and Sustainable Development ([IERSD](#) / 2014-2015) and the Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing ([IAASARS](#) / 2016-present day) of the National Observatory of Athens ([NOA](#)). His main activities include (1) exploitation of advanced ground-based and space-borne active and passive remote sensing observations, sophisticated techniques, and theoretical models towards the development, update, upgrade, and maintenance of global and multiyear Climate Data Records (CDR), aerosol products, and applications (e.g. [ESA-LIVAS CDR](#); Amiridis et al., 2015) and (2) validation of satellite-based Earth Observational systems (i.e. [ISS-CATS](#), [Aeolus-ALADIN](#), [EarthCARE-ATLID](#); Proestakis et al., 2019/cal-val campaigns (CV Sect. “Publications” and “Experimental Campaigns”).

To date, his work on Environmental Physics, with focus on remote sensing of atmospheric aerosols, has been published in a variety of studies, including among others, the four-dimensional evolution of atmospheric dust aerosols in the atmosphere (Amiridis et al., 2015; Marinou et al., 2017; Proestakis et al., 2018; Aslanoğlu et al., 2022), the effect of aerosols on phytoplankton (Li et al., 2018) and in assessing biochemical indices of marine particles in the open Mediterranean Sea (Chaikalis et al., 2021), on investigating the impact of the inhalable component of dust on Air Quality (Amiridis et al., 2014; Proestakis et al., 2024) and on extreme meteorological phenomena (Proestakis et al., 2014; 2015), on the effect of aerosols on energy/solar radiation (Kosmopoulos et al., 2017; 2018; Masoom et al., 2021; Fountoulakis et al., 2022; 2024), on the impact of aerosols on meteorology (Solomos et al., 2018), extreme weather phenomena (Solomos et al., 2019), and aviation (Ryder et al., 2024), and on establishing novel Earth Observation satellite-based products (Chimot et al., 2017; Georgoulis et al., 2020; Gkikas et al., 2022; 2023).

At has been awarded/supported as PI of the [AXA Research Fund](#) for postdoctoral researchers [EO4AQ-DustFM fellowship-project](#), aiming to establish a novel Earth Observation-based near-global and multiyear Climate Data Record of the fine-mode and coarse-mode components of atmospheric pure-dust and assess the impact of the different modes in a wide range of potential applications (Proestakis et al., 2024), strengthening and widening his competences to manage a research project from Kick-Off to End-of-Activity and aiding him with the expertise needed to become an independent scientist. During the period extending between 02/2020-01/2022 he was also PI of a project awarded by the “State Scholarships Foundation” (IKY) for postdoctoral researchers - (MIS 5033021), investigating the impact of mineral dust on ocean biogeochemistry. He has worked in several research projects, both as Work Package leader (i.e., ESA L2A+ and CORAL projects) and as a researcher (i.e., ESA NEWTON, SNF EKAD3, Marco Polo, TALOS).

At present (Kick Off on June 2025), he is **PI of the European Space Agency (ESA) “Ocean Research enhancement through EarthCARE Observations of dust” (OREO) project**, between NOA, Barcelona Supercomputing Center (BSC), and the Institut für Physik der Atmosphäre, Deutsches Zentrum für Luft- und Raumfahrt (DLR).

Summarizing, EP scientific expertise lies in EO of amphoteric aerosols - with focus on the dust component - and exploitation of the dust-related environmental impacts. He has participated in 12 research projects, he has 40 publications in peer-reviewed scientific journals (**h-index: 18, ~1130 citations**, Source: [Scopus](#); 12/06/2025), he has 70 announcements in conferences, has worked as **WP-leader in several research projects**, and he is **PI of the [EO4AQ-DustFM project](#)** supported by the competitive [AXA Research Fund Fellowships for postdoctoral researchers framework](#) and the ESA-OREO project.

CURRENT POSITION(S)	
07.2018 - present day	PostDoc Researcher at ReACT group , IAASARS , NOA - Dr. V. Amiridis.

PREVIOUS POSITION(S)	
11.2015 - 06.2018	Scientific collaborator in the framework of the PhD studies, IAASARS - NOA .
06.2014 - 10.2015	Scientific collaborator in the framework of the PhD studies, IERSD - NOA .
03.2012 - 08.2013	Academic Assistant in the framework of the MSc studies, IUP , Bremen (Germany).
11.2007 - 12.2007	Traineeship in the framework of the basic diploma studies, FORTH , Heraklion, Greece.

EDUCATION	
05.2014 - 03.2018	PhD in Environmental Physics Section of Applied Physics, Physics Department University of Patras , Greece.
10.2011 - 08.2013	MSc in Environmental Physics - Institute of Environmental Physics (IUP), University of Bremen , Germany. Overall Grade: 1.7 (very good)
09.2003 - 03.2011	Diploma in Applied Mathematical and Physical Sciences National Technical University of Athens - (NTUA) Athens (Greece). Focus on: Advanced Technology Materials, Optoelectronics and Lasers. Overall Grade: 6.96/10 (good)

MOBILITY	
11.2015 - present day	IAASARS - NOA Dr. V. Amiridis.
06.2014 - 10.2015	IERSD - NOA Dr. K. Lagouvardos.
10.2011 - 08.2013	IUP - University of Bremen Dr. R. Hommel Germany.
05.2010 - 03.2011	Laser Remote Sensing Unit (LRSU) - SEMFE - NTUA Dr. A. Papayannis.
11.2007 - 12.2007	Institute of Electronic Structure and Laser (IESL) - FORTH .

PUBLICATIONS	
EP has 40 publications in peer-reviewed scientific journals and his work has received ~1130 citations (h-index = 18, source: Scopus; last visit: 12/06/2025). [Copernicus references format used - Alphabetically listed].	
<ol style="list-style-type: none"> Amiridis, V., Marinou, E., Tsekeri, A., Wandinger, U., Schwarz, A., Giannakaki, E., Mamouri, R., Kokkalis, P., Biniotoglou, I., Solomos, S., Herekakis, T., Kazadzis, S., Gerasopoulos, E., Proestakis, E., Kottas, M., Balis, D., Papayannis, A., Kontoes, C., Kourtidis, K., Papagiannopoulos, N., Mona, L., Pappalardo, G., Le Rille, O., and Ansmann, A.: LIVAS: a 3-D multi-wavelength aerosol/cloud database based on CALIPSO and EARLINET, <i>Atmos. Chem. Phys.</i>, 15, 7127–7153, https://doi.org/10.5194/acp-15-7127-2015, 2015. Amiridis, V., Kazadzis, S., Gkikas, A., Voudouri, K. A., Kouklaki, D., Koukouli, M.-E., Garane, K., Georgoulas, A. K., Solomos, S., Varlas, G., Kampouri, A., Founda, D., Psiloglou, B. E., Katsafados, P., Papachristopoulou, K., Fountoulakis, I., Raptis, P.-I., Georgiou, T., Gialitaki, A., Proestakis, E., Tsekeri, A., Drakaki, E., Marinou, E., Giannakaki, E., Misios, S., Kapsomenakis, J., Eleftheratos, K., Hatzianastassiou, N., Kalabokas, P., Zanis, P., Vrekoussis, M., Papayannis, A., Kazantzidis, A., Kourtidis, K., Balis, D., Bais, A. F., and Zerefos, C.: Natural Aerosols, Gaseous Precursors and Their Impacts in Greece: A Review from the Remote Sensing Perspective, <i>Atmosphere</i>, 15, 753, https://doi.org/10.3390/atmos15070753, 2024. Aslanoğlu, S. Y., Proestakis, E., Gkikas, A., Güllü, G., and Amiridis, V.: Dust Climatology of Turkey as a Part of the Eastern Mediterranean Basin via 9-Year CALIPSO-Derived Product, <i>Atmosphere</i>, 13, 733, https://doi.org/10.3390/atmos13050733, 2022. Chaikalis, S., Parinos, C., Moebius, J., Gogou, A., Velaoras, D., Hainbucher, D., Sofianos, S., Tanhua, T., Cardin, V., Proestakis, E., Amiridis, V., Androni, A., and Karageorgis, A.: Optical Properties and 	

- Biochemical Indices of Marine Particles in the Open Mediterranean Sea: The R/V Maria S. Merian Cruise, March 2018, *Front. Earth Sci.*, 9, 614703, <https://doi.org/10.3389/feart.2021.614703>, 2021.
5. Chimot, J., Veefkind, J. P., Vlemmix, T., de Haan, J. F., Amiridis, V., **Proestakis, E.**, Marinou, E., and Levelt, P. F.: An exploratory study on the aerosol height retrieval from OMI measurements of the 477 nm O-2-O-2 spectral band using a neural network approach, *Atmos. Meas. Tech.*, 10, 783–809, <https://doi.org/10.5194/amt-10-783-2017>, 2017.
 6. Cvetkovic, B., Dagsson-Waldhauserová, P., Petkovic, S., Arnalds, Ó., Madonna, F., **Proestakis, E.**, Gkikas, A., Vukovic Vimic, A., Pejanovic, G., Rosoldi, M., Ceburnis, D., Amiridis, V., Lisá, L., Nickovic, S., and Nikolic, J.: Fully Dynamic High-Resolution Model for Dispersion of Icelandic Airborne Mineral Dust, *Atmosphere*, 13, 1345, <https://doi.org/10.3390/atmos13091345>, 2022.
 7. Drakaki, E., Amiridis, V., Tsekeri, A., Gkikas, A., **Proestakis, E.**, Mallios, S., Solomos, S., Spyrou, C., Marinou, E., Ryder, C. L., Bouris, D., and Katsafados, P.: Modeling coarse and giant desert dust particles, *Atmospheric Chemistry and Physics*, 22, 12727–12748, <https://doi.org/10.5194/acp-22-12727-2022>, 2022.
 8. Escribano, J., Di Tomaso, E., Jorba, O., Klose, M., Gonçalves Ageitos, M., Macchia, F., Amiridis, V., Baars, H., Marinou, E., **Proestakis, E.**, Urbanneck, C., Althausen, D., Bühl, J., Mamouri, R.-E., and Pérez García-Pando, C.: Assimilating spaceborne lidar dust extinction can improve dust forecasts, *Atmospheric Chemistry and Physics*, 22, 535–560, <https://doi.org/10.5194/acp-22-535-2022>, 2022.
 9. Fountoulakis, I., Papachristopoulou, K., **Proestakis, E.**, Amiridis, V., Kontoes, C., and Kazadzis, S.: Effect of Aerosol Vertical Distribution on the Modeling of Solar Radiation, *Remote Sensing*, 14, 1143, <https://doi.org/10.3390/rs14051143>, 2022.
 10. Fountoulakis, I., Tsekeri, A., Kazadzis, S., Amiridis, V., Nersesian, A., Tschla, M., **Proestakis, E.**, Gkikas, A., Papachristopoulou, K., Barlakas, V., Emde, C., and Mayer, B.: A sensitivity study on radiative effects due to the parameterization of dust optical properties in models, *Atmospheric Chemistry and Physics*, 24, 4915–4948, <https://doi.org/10.5194/acp-24-4915-2024>, 2024.
 11. Georgoulas, A. K., Marinou, E., Tsekeri, A., **Proestakis, E.**, Akritidis, D., Alexandri, G., Zanis, P., Balis, D., Marengo, F., Tesche, M., and Amiridis, V.: A First Case Study of CCN Concentrations from Spaceborne Lidar Observations, *Remote Sensing*, 12, 1557, <https://doi.org/10.3390/rs12101557>, 2020.
 12. Gkikas, A., **Proestakis, E.**, Amiridis, V., Kazadzis, S., Di Tomaso, E., Tsekeri, A., Marinou, E., Hatzianastassiou, N., and Perez Garcia-Pando, C.: ModIs Dust AeroSol (MIDAS): a global fine-resolution dust optical depth data set, *Atmos. Meas. Tech.*, 14, 309–334, <https://doi.org/10.5194/amt-14-309-2021>, 2021a.
 13. Gkikas, A., **Proestakis, E.**, Amiridis, V., Kazadzis, S., Di Tomaso, E., Marinou, E., Hatzianastassiou, N., Kok, J. F., and García-Pando, C. P.: Quantification of the dust optical depth across spatiotemporal scales with the MIDAS global dataset (2003–2017), *Atmospheric Chemistry and Physics Discussions*, 1–51, <https://doi.org/10.5194/acp-2021-572>, 2021b.
 14. Gkikas, A., Gialitaki, A., Binietoglou, I., Marinou, E., Tschla, M., Siomos, N., Paschou, P., Kampouri, A., Voudouri, K. A., **Proestakis, E.**, Mylonaki, M., Papanikolaou, C.-A., Michailidis, K., Baars, H., Straume, A. G., Balis, D., Papayannis, A., Parrinello, T., and Amiridis, V.: First assessment of Aeolus Standard Correct Algorithm particle backscatter coefficient retrievals in the eastern Mediterranean, *Atmospheric Measurement Techniques*, 16, 1017–1042, <https://doi.org/10.5194/amt-16-1017-2023>, 2023.
 15. Kiriakidis, P., Gkikas, A., Papangelis, G., Christoudias, T., Kushta, J., **Proestakis, E.**, Kampouri, A., Marinou, E., Drakaki, E., Benedetti, A., Rennie, M., Retscher, C., Straume, A. G., Dandoci, A., Sciare, J., and Amiridis, V.: The impact of using assimilated Aeolus wind data on regional WRF-Chem dust simulations, *Atmospheric Chemistry and Physics*, 23, 4391–4417, <https://doi.org/10.5194/acp-23-4391-2023>, 2023.
 16. Konsta, D., Binietoglou, I., Gkikas, A., Solomos, S., Marinou, E., **Proestakis, E.**, Basart, S., Perez Garcia-Pando, C., El-Askary, H., and Amiridis, V.: Evaluation of the BSC-DREAM8b regional dust model using the 3D LIVAS-CALIPSO product, *Atmos. Environ.*, 195, 46–62, <https://doi.org/10.1016/j.atmosenv.2018.09.047>, 2018.
 17. Kosmopoulos, P. G., Kazadzis, S., Taylor, M., Athanasopoulou, E., Speyer, O., Raptis, P. I., Marinou, E., **Proestakis, E.**, Solomos, S., Gerasopoulos, E., Amiridis, V., Bais, A., and Kontoes, C.: Dust impact on surface solar irradiance assessed with model simulations, satellite observations and ground-based measurements, *Atmos. Meas. Tech.*, 10, <https://doi.org/10.5194/amt-10-2435-2017>, 2017.

18. Kosmopoulos, P. G., Kazadzis, S., El-Askary, H., Taylor, M., Gkikas, A., **Proestakis, E.**, Kontoes, C., and El-Khayat, M. M.: Earth-Observation-Based Estimation and Forecasting of Particulate Matter Impact on Solar Energy in Egypt, *Remote Sens.*, 10, 1870, <https://doi.org/10.3390/rs10121870>, 2018.
19. de Leeuw, G., Sogacheva, L., Rodriguez, E., Kourtidis, K., Georgoulas, A. K., Alexandri, G., Amiridis, V., **Proestakis, E.**, Marinou, E., Xue, Y., and van der A, R.: Two decades of satellite observations of AOD over mainland China using ATSR-2, AATSR and MODIS/Terra: data set evaluation and large-scale patterns, *Atmos. Chem. Phys.*, 18, 1573–1592, <https://doi.org/10.5194/acp-18-1573-2018>, 2018.
20. Li, W., El-Askary, H., Qurban, M. A., **Proestakis, E.**, Garay, M. J., Kalashnikova, O. V., Amiridis, V., Gkikas, A., Marinou, E., Piechota, T., and Manikandan, K. P.: An Assessment of Atmospheric and Meteorological Factors Regulating Red Sea Phytoplankton Growth, *Remote Sens.*, 10, 673, <https://doi.org/10.3390/rs10050673>, 2018.
21. Marinou, E., Amiridis, V., Biniotoglou, I., Tsikerdekis, A., Solomos, S., **Proestakis, E.**, Konsta, D., Papagiannopoulos, N., Tsekeri, A., Vlastou, G., Zanis, P., Balis, D., Wandinger, U., and Ansmann, A.: Three-dimensional evolution of Saharan dust transport towards Europe based on a 9-year EARLINET-optimized CALIPSO dataset, *Atmos. Chem. Phys.*, 17, 5893–5919, <https://doi.org/10.5194/acp-17-5893-2017>, 2017.
22. Masoom, A., Kosmopoulos, P., Bansal, A., Gkikas, A., **Proestakis, E.**, Kazadzis, S., and Amiridis, V.: Forecasting dust impact on solar energy using remote sensing and modeling techniques, *Solar Energy*, 228, 317–332, <https://doi.org/10.1016/j.solener.2021.09.033>, 2021.
23. Mei, L., Vandenbussche, S., Rozanov, V., **Proestakis, E.**, Amiridis, V., Callewaert, S., Vountas, M., and Burrows, J. P.: On the retrieval of aerosol optical depth over cryosphere using passive remote sensing, *Remote Sensing of Environment*, 241, <https://doi.org/10.1016/j.rse.2020.111731>, 2020.
24. Moustaka, A., Korras-Carraca, M.-B., Papachristopoulou, K., Stamatis, M., Fountoulakis, I., Kazadzis, S., **Proestakis, E.**, Amiridis, V., Tourpali, K., Georgiou, T., Solomos, S., Spyrou, C., Zerefos, C., and Gkikas, A.: Assessing Lidar Ratio Impact on CALIPSO Retrievals Utilized for the Estimation of Aerosol SW Radiative Effects across North Africa, the Middle East, and Europe, *Remote Sensing*, 16, 1689, <https://doi.org/10.3390/rs16101689>, 2024.
25. Moustaka, A., Kazadzis, S., **Proestakis, E.**, Lopatin, A., Dubovik, O., Tourpali, K., Zerefos, C., Amiridis, V., and Gkikas, A.: Enhancing dust aerosols monitoring capabilities across North Africa and the Middle East using the A-Train satellite constellation, *EGUsphere [preprint]*, <https://doi.org/10.5194/egusphere-2025-888>, 2025.
26. **Proestakis, E.**, Kazadzis, S., Lagouvardos, K., Kotroni, V., Amiridis, V., Marinou, E., Price, C., and Kazantzidis, A.: Aerosols and lightning activity: The effect of vertical profile and aerosol type, *Atmos. Res.*, 182, 243–255, <https://doi.org/10.1016/j.atmosres.2016.07.031>, 2016a.
27. **Proestakis, E.**, Kazadzis, S., Lagouvardos, K., Kotroni, V., and Kazantzidis, A.: Lightning activity and aerosols in the Mediterranean region, *Atmos. Res.*, 170, 66–75, <https://doi.org/10.1016/j.atmosres.2015.11.010>, 2016b.
28. **Proestakis, E.**, Amiridis, V., Marinou, E., Georgoulas, A. K., Solomos, S., Kazadzis, S., Chimot, J., Che, H., Alexandri, G., Biniotoglou, I., Daskalopoulou, V., Kourtidis, K. A., de Leeuw, G., and Ronald, J. van der A.: Nine-year spatial and temporal evolution of desert dust aerosols over South and East Asia as revealed by CALIOP, *Atmos. Chem. Phys.*, 18, 1337–1362, <https://doi.org/10.5194/acp-18-1337-2018>, 2018.
29. **Proestakis, E.**, Amiridis, V., Marinou, E., Biniotoglou, I., Ansmann, A., Wandinger, U., Hofer, J., Yorks, J., Nowottnick, E., Makhmudov, A., Papayannis, A., Pietruczuk, A., Gialitaki, A., Apituley, A., Szkop, A., Muñoz Porcar, C., Bortoli, D., Dionisi, D., Althausen, D., Mamali, D., Balis, D., Nicolae, D., Tetoni, E., Liberti, G. L., Baars, H., Mattis, I., Stachlewska, I. S., Voudouri, K. A., Mona, L., Mylonaki, M., Perrone, M. R., Costa, M. J., Sicard, M., Papagiannopoulos, N., Siomos, N., Burlizzi, P., Pauly, R., Engelmann, R., Abdullaev, S., and Pappalardo, G.: EARLINET evaluation of the CATS Level 2 aerosol backscatter coefficient product, *Atmospheric Chemistry and Physics*, 19, 11743–11764, <https://doi.org/10.5194/acp-19-11743-2019>, 2019.
30. **Proestakis, E.**, Gkikas, A., Georgiou, T., Kampouri, A., Drakaki, E., Ryder, C. L., Marengo, F., Marinou, E., and Amiridis, V.: A near-global multiyear climate data record of the fine-mode and coarse-mode

components of atmospheric pure dust, *Atmospheric Measurement Techniques*, 17, 3625–3667, <https://doi.org/10.5194/amt-17-3625-2024>, 2024.

31. **Proestakis, E.**, Amiridis, V., García-Pando, C. P., Tsyro, S., Griesfeller, J., Gkikas, A., Georgiou, T., Ageitos, M. G., Escribano, J., Myriokefalitakis, S., Masso, E. B., Di Tomaso, E., Basart, S., Stuut, J.-B. W., and Benedetti, A.: Quantifying Dust Deposition over the Atlantic Ocean, *Earth Syst. Sci. Data Discuss.* [preprint], <https://doi.org/10.5194/essd-2025-43>, in review, 2025.
32. **Proestakis, E.**, Papachristopoulou, K., Georgiou, T., Chatoutsidou, S. E., Lazaridis, M., Gkikas, A., Fountoulakis, I., Tsikoudi, I., Petrakis, M. P., and Amiridis, V.: Atmospheric Dust and Air Quality over large-cities and megacities of the World, *EGUsphere* [preprint], <https://doi.org/10.5194/egusphere-2025-1841>, 2025.
33. **Proestakis, E.**: Tackling the effects of atmospheric dust hazard on human health, *Field Actions Science Report*, 2025, 76–79, 2025.
34. Rizos, K., **Proestakis, E.**, Georgiou, T., Gkikas, A., Marinou, E., Paschou, P., Voudouri, K. A., Tsikerdekis, A., Donovan, D., van Zadelhoff, G.-J., Benedetti, A., Baars, H., Floutsi, A. A., Benas, N., Stengel, M., Retscher, C., Malina, E., and Amiridis, V.: Derivation and validation of a refined dust product from Aeolus (L2A+), *EGUsphere* [preprint], <https://doi.org/10.5194/egusphere-2025-1175>, 2025.
35. Ryder, C. L., Bézier, C., Dacre, H. F., Clarkson, R., Amiridis, V., Marinou, E., **Proestakis, E.**, Kipling, Z., Benedetti, A., Parrington, M., Rémy, S., and Vaughan, M.: Aircraft engine dust ingestion at global airports, *Natural Hazards and Earth System Sciences*, 24, 2263–2284, <https://doi.org/10.5194/nhess-24-2263-2024>, 2024.
36. Sogacheva, L., de Leeuw, G., Rodriguez, E., Kolmonen, P., Georgoulas, A. K., Alexandri, G., Kourtidis, K., **Proestakis, E.**, Marinou, E., Amiridis, V., Xue, Y., and van der A, R. J.: Spatial and seasonal variations of aerosols over China from two decades of multi-satellite observations - Part 1: ATSR (1995-2011) and MODIS C6.1 (2000-2017), *Atmos. Chem. Phys.*, 18, 11389–11407, <https://doi.org/10.5194/acp-18-11389-2018>, 2018.
37. Solomos, S., Kalivitis, N., Mihalopoulos, N., Amiridis, V., Kouvarakis, G., Gkikas, A., Biniotoglou, I., Tsekeri, A., Kazadzis, S., Kottas, M., Pradhan, Y., **Proestakis, E.**, Nastos, P. T., and Marengo, F.: From Tropospheric Folding to Khamsin and Foehn Winds: How Atmospheric Dynamics Advanced a Record-Breaking Dust Episode in Crete, *Atmosphere*, 9, 240, <https://doi.org/10.3390/atmos9070240>, 2018.
38. Solomos, S., Gialitaki, A., Marinou, E., **Proestakis, E.**, Amiridis, V., Baars, H., Komppula, M., and Ansmann, A.: Modeling and remote sensing of an indirect Pyro-Cb formation and biomass transport from Portugal wildfires towards Europe, *Atmospheric Environment*, 206, 303–315, <https://doi.org/10.1016/j.atmosenv.2019.03.009>, 2019.
39. Stachlewska, I. S., Samson, M., Zawadzka, O., Harenda, K. M., Janicka, L., Poczta, P., Szczepanik, D., Heese, B., Wang, D., Borek, K., Tetoni, E., **Proestakis, E.**, Siomos, N., Nemuc, A., Chojnicki, B. H., Markowicz, K. M., Pietruczuk, A., Szkop, A., Althausen, D., Stebel, K., Schuettemeyer, D., and Zehner, C.: Modification of Local Urban Aerosol Properties by Long-Range Transport of Biomass Burning Aerosol, *Remote Sens.*, 10, 412, <https://doi.org/10.3390/rs10030412>, 2018.
40. Tsikoudi, I., Marinou, E., Tombrou, M., Giannakaki, E., **Proestakis, E.**, Rizos, K., Vakkari, V., and Amiridis, V.: Atmospheric Boundary Layer in the Atlantic: the desert dust impact, *EGUsphere* [preprint], <https://doi.org/10.5194/egusphere-2025-1105>, 2025.

CONFERENCES/WORKSHOPS/etc.

2020-2022 disruption in conferences participation is COVID-19 related.

1. **E. Proestakis**, A. Gkikas, T. Georgiou, A. Kampouri, E. Drakaki, C. L. Ryder, F. Marengo, E. Marinou, V. Amiridis: «A near-global multiyear climate data record of the submicrometer-mode and supermicrometer-mode components of atmospheric pure-dust», *ATMOS 2024* | 1-5 July Bologna, Italy.
2. **E. Proestakis**, A. Gkikas, T. Georgiou, A. Kampouri, E. Drakaki, C. L. Ryder, F. Marengo, E. Marinou, V. Amiridis: «A near-global multiyear climate data record of the submicrometer-mode and supermicrometer-mode components of atmospheric pure-dust», *EMS Annual Meeting 2024*, 2-6 September 2024, Barcelona, Spain, 2024.

3. A. Moustaka, A. Gkikas, **E. Proestakis**, A. Lopatin, S. Kazadzis, O. Dubovik, K. Tourpali, C. Zerefos, V. Amiridis: «A synergy between CALIOP-CALIPSO and GRASP-POLDER retrievals towards advancing monitoring capabilities of dust aerosols across North Africa and Middle East», EMS Annual Meeting 2024, 2-6 September 2024, Barcelona, Spain, 2024.
4. **E. Proestakis**, A. Gkikas, T. Georgiou, A. Kampouri, E. Drakaki, C. L. Ryder, F. Marengo, E. Marinou, V. Amiridis: «A near-global multiyear climate data record of the fine-mode and coarse-mode components of atmospheric pure-dust», IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2024, 7-12 July 2024, Athens, Greece, 2024.
5. T. Georgiou, A. Tsikerdekis, K. Rizos, **E. Proestakis**, A. Gkikas, A. Kampouri, H. Baars, A. A. Floutsi, E. Marinou, A. Benedetti, W. McLean, C. Retscher, D. Melas, V. Amiridis: «From Aeolus to EarthCARE aerosol assimilation in regional models», IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2024, 7-12 July 2024, Athens, Greece, 2024.
6. K. Rizos, **E. Proestakis**, T. Georgiou, A. Gkikas, E. Marinou, V. Amiridis: «Aeolus and Calipso synergy for improved dust products», IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2024, 7-12 July 2024, Athens, Greece, 2024.
- A. Moustaka, M.-B. Korras-Carraca, K. Papachristopoulou, M. Stamatis, I. Fountoulakis, S. Kazadzis, **E. Proestakis**, V. Amiridis, K. Tourpali, C. Zerefos and A. Gkikas: «Lidar ratio impact on the estimated aerosol SW radiative effects across North Africa, Middle East and Europe based on CALIPSO retrievals», International Radiation Symposium, 17-21 June 2024, Hangzhou, China, 2024.
- A. Moustaka, M.-B. Korras-Carraca, K. Papachristopoulou, M. Stamatis, I. Fountoulakis, S. Kazadzis, **E. Proestakis**, V. Amiridis, K. Tourpali, C. Zerefos and A. Gkikas: «Lidar ratio assessment on CALIPSO retrievals towards estimating the aerosol-induced shortwave direct radiative effects across North Africa, Middle East and Europe», CALIPSO INTERNATIONAL SYMPOSIUM ON SPACEBORN LIDAR, 4 – 6 June 2024, Saint-Malo, France, 2024.
7. T. Georgiou, A. Tsikerdekis, K. Rizos, **E. Proestakis**, A. Gkikas, A. Kampouri, H. Baars, A.A. Floutsi, E. Marinou, A. Benedetti, W. Mclean, C. Retscher, D. Melas, V. Amiridis: «Using AEOLUS Aerosol Assimilation to pave the way for EarthCARE», EGU2024 General Assembly, 14-19 April 2024, Vienna, Austria, 2024.
8. **E. Proestakis**, A. Gkikas, T. Georgiou, A. Kampouri, E. Drakaki, C. L. Ryder, F. Marengo, E. Marinou, V. Amiridis: «A near-global multiyear climate data record of the submicrometer-mode and supermicrometer-mode components of atmospheric pure-dust», EGU2024 General Assembly, 14-19 April 2024, Vienna, Austria, 2024.
9. E. Drakaki, V. Amiridis, A. Gkikas, E. Marinou, **E. Proestakis**, G. Papangelis, A. Benedetti, M. Rennie, C. Retscher, D. Bouris and P. Katsafados: «Assessing the Impact of Aeolus Wind Profiles in WRF-Chem Model Dust Simulations in September 2021», 16th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP2023, 25-29 September 2023, 2023.
10. A. Kampouri, V. Amiridis, T. Georgiou, S. Solomos, I. Biniotoglou, A. Gialitaki, E. Marinou, A. Gkikas, **E. Proestakis**, M. Rennie, A. Benedetti, S. Scollo, L. Mona, N. Papagiannopoulos and P. Zanis: «Inversion techniques on Etna’s volcanic emissions and the impact of Aeolus on quantitative dispersion modeling», 16th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP2023, 25-29 September 2023, 2023.
- A. Moustaka, M.-B. Korras-Carraca, K. Papachristopoulou, I. Fountoulakis, S. Kazadzis, **E. Proestakis**, V. Amiridis, K. Tourpali and A. Gkikas: «Assessment of CALIOP-CALIPSO retrievals towards estimating the aerosol direct impact on the shortwave radiation budget in North Africa, Europe and Middle East», 16th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP2023, 25-29 September 2023, 2023.
11. Alexandra Gogou et al.: “Biogeochemical and ecological features of sinking particulate matter in the deep Ionian Sea (E. Mediterranean) during a 10-year time series study: impacts of atmospheric and oceanographic variabilities on carbon production and sequestration”, Session AS4.13 – Air-sea Chemical Fluxes: Impacts on Biogeochemistry and Climate.
12. E. Marinou, P. Paschou, I. Tsikoudi, A. Tsekeri, V. Daskalopoulou, D. Kouklaki, N. Siomos, V. Spanakis-Misirlis, K. A. Voudouri, T. Georgiou, E. Drakaki, A. Kampouri, K. Papachristopoulou, I. Mavropoulou, S. Mallios, **E. Proestakis**, A. Gkikas, I. Koutsoupi, I. P. Raptis, S. Kazadzis, H. Baars, A. Floutsi, R.

- Pirloaga, A. Nemuc, F. Marenco, M. Kezoudi, A. Papetta, G. Mocnik, C. Ryder, N. Ratcliffe, and V. Amiridis: «An Overview of the ASKOS Campaign in Cabo Verde», 16th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP2023, 25-29 September 2023, 2023.
13. K. Rizos, A. Gkikas, **E. Proestakis**, T. Georgiou, V. Amiridis, E. Marinou, D. Donovan, N. Benas, M. Stengel, C. Retscher, H. Baars, A.A. Floutsi: «An Overview of the ASKOS Campaign in Cabo Verde», 16th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP2023, 25-29 September 2023, 2023.
 14. T. Georgiou, **E. Proestakis**, A. Gkikas, K. Rizos, E. Drakaki, A. Kampouri, A. Tsikerdekis, D. Donovan, H. Baars, A. A. Floutsi, E. Marinou, A. Benedetti, W. McLean, C. Retscher, D. Melas and V. Amiridis: «Utilizing AEOLUS to improve dust transport modelling», 16th International Conference on Meteorology, Climatology and Atmospheric Physics, COMECAP2023, 25-29 September 2023, 2023.
 15. A. Gkikas, **E. Proestakis**, A. Dabas, A. Benedetti, W. McLean, T. Flament, E. Marinou, I. Tsikoudi, H. Baars, A. A. Floutsi, V. Amiridis, R. Borde: «Upgrading Aeolus aerosol observational capabilities towards improving air quality and NWP model (ADD-CROSS)», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 - A. Kampouri, T. Georgiou, V. Amiridis, S. Solomos, A. Gkikas, A. Gialitaki, E. Marinou, **E. Proestakis**, A. Benedetti, M. Rennie, L. Mona, N. Papagianopoulos, S. Scollo, and P. Zanis: «The impact of Aeolus on Volcanic Ash quantitative dispersion modeling by applying inversion techniques on volcanic emissions», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 16. E. Drakaki, V. Amiridis, A. Gkikas, E. Marinou, **E. Proestakis**, G. Papangelis, A. Benedetti, M. Rennie, C. Retscher, P. Katsafados: «Advancing WRF-Chem regional simulations via Aeolus wind assimilation in the framework of the JATAC campaign», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 17. **E. Proestakis**, A. Gkikas, A. Georgiou, K. Rizos, P. Paschou, W. McLean, A. Benedetti, and V. Amiridis: «Aeolus aerosol observational capability based on CALIPSO», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 18. K. Rizos, A. Gkikas, **E. Proestakis**, T. Georgiou, V. Amiridis, E. Marinou, D. Donovan, N. Benas, S. Martin, C. Retscher, H. Baars, A. A. Floutsi: «Development and validation of an enhanced aerosol product for Aeolus», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 19. T. Georgiou, **E. Proestakis**, A. Gkikas, K. Rizos, E. Drakaki, A. Kampouri, A. Tsikerdekis, D. Donovan, H. Baars, A. A. Floutsi, A. Benedetti, V. Amiridis: «Enhancing Aeolus L2A for depolarizing targets and impact on aerosol research and NWP», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 - I. Kushta, P. Kiriakidis, A. Gkikas, G. Papangelis, T. Christoudias, **E. Proestakis**, A. Kampouri, E. Marinou, E. Drakaki, A. Benedetti, M. Rennie, C. Retscher, A.G. Straume, A. Dandocsi, J. Sciare, and V. Amiridis: «Regional dust modelling performance skill with the use of assimilated Aeolus wind data», Aeolus Science Conference 2023, 22-26 May 2023, Rhodes, Greece, 2023.
 20. T. Georgiou, **E. Proestakis**, A. Gkikas, K. Rizos, E. Drakaki, A. Kampouri, A. Tsikerdekis, H. Baars, A. A. Floutsi, A. Benedetti, and V. Amiridis: «Enhancing Aeolus L2A for depolarizing targets and impact on aerosol research and NWP», EGU General Assembly 2023, Vienna, Austria, 2023.
 21. A. Kampouri, V. Amiridis, O. Tichý, N. Evangeliou, S. Solomos, A. Gialitaki, E. Marinou, A. Gkikas, **E. Proestakis**, S. Scollo, L. Merucci, L. Mona, N. Papagiannopoulos, and P. Zanis: «Inversion techniques on volcanic emissions and the use for quantitative dispersion modeling: The case of Etna eruption on 12 March 2021», EGU General Assembly 2023, Vienna, Austria, 2023.
 - A. Moustaka, **E. Proestakis**, V. Amiridis, S. Kazadzis, K. Tourpali, and A. Gkikas: «Depicting the regime of different aerosol types in NAMEE (North Africa - Middle East - Europe) based on CALIOP-CALIPSO retrievals», EGU General Assembly 2023, Vienna, Austria, 2023.
 22. S. Yeşer Aslanoğlu, **E. Proestakis**, A. Gkikas, G. Güllü, and V. Amiridis: «A 9-Year Three-Dimensional Dust Climatology of the Eastern Mediterranean Basin via CALIPSO-Derived Product», EGU General Assembly 2023, Vienna, Austria, 2023.
 23. A. Benedetti, V. Amiridis, **E. Proestakis**, A. Dabas, and A. Gkikas: «Upgrading Aeolus aerosol observational capabilities towards improving air quality and NWP models (ADD-CROSS)», EUMETSAT Meteorological Satellite Conference, Brussels, Belgium, 2022.

- A. Kampouri, N. Evangelidou, O. Tichý, V. Amiridis, S. Solomos, A. Gialitaki, E. Marinou, A. Gkikas, **E. Proestakis**, S. Scollo, L. Merucci, L. Mona, N. Papagiannopoulos and P. Zanis: «Advanced inversion techniques on volcanic emissions and their use for quantitative dispersion modeling: the 12th March 2021-Etna's eruption», IAC2022, Athens, Greece, 2022.
24. Jonilda Kushta, Pantelis Kiriakidis, Theodoros Christoudias, Antonis Gkikas, George Papaggelis, **Emmanouil Proestakis**, Eleni Marinou, Anna Gialitaki, Angela Benedetti, Michael Rennie, Anna Grete Straume, Vassilis Amiridis and Jean Sciare: «Impact of Aeolus wind assimilation on mineral dust mobilization and transport over the Mediterranean», IAC2022, Athens, Greece, 2022.
25. Anna Moustaka, **Emmanouil Proestakis**, Vassilis Amiridis, Stelios Kazadzis, Kleareti Tourpali, Antonis Gkikas: «Aerosol radiative effects based on an improved CALIPSO classification scheme», International Radiation Symposium 2022, Thessaloniki, Greece, 2022.
26. Alexandra Tsekeri, Vassilis Amiridis, Maria Tsihla, Ilias Fountoulakis, Angelos Nersesian, **Emmanouil Proestakis**, Antonis Gkikas, Kyriakoula Papachristopoulou, Vasileios Barlakas, Stelios Kazadzis: «The Effect of Large Dust Size aerosols on solar radiation Fluxes», International Radiation Symposium 2022, Thessaloniki, Greece, 2022.
27. **Emmanouil Proestakis**, Angela Benedetti, Alain Dabas, Vassilis Amiridis, Eleni Marinou, Peristera Paschou, Athanassios Georgiou, Antonis Gkikas, Anna Kampouri, Anna Gialitaki, Alexandra Tsekeri, William McLean, Liam Steel: «Assessing Aeolus aerosol observational capabilities for data assimilation in air quality and NWP models», International Laser Radar Conference, Montana, USA, 2022.
28. Angela Benedetti, Stephanie Fiedler, Vassilis Amiridis, Antonis Gkikas, **Emmanouil Proestakis**, Eleni Marinou, Stelios Myriokefalitakis, Sara Basart, Raffaele Bernardello, Enza Di Tomaso, Jerónimo Escribano, Maria Goncalves, Joan Lloort, Carlos Pérez García-Pando, Melanie Ades, Zak Kipling, Daniel Thiemert, Jan-Berend Stuut, Svetlana Tsyro, Jan Griesfeller: «The 4D-Atlantic Dust and Ocean Modelling and Observing Study (DOMOS)», ESA Living Planet Symposium, Bonn, Germany, 2022.
29. Eleni Marinou, Holger Baars, Peristera Paschou, Griša Močnik, Nikos Siomos, Ronny Engelmann, Annet Skupin, Razvan Pirloaga, Matevž Lenarčič, Cordula Zenk, Eder Silva, Elizandro Rodrigues, Pericles Silva, Sofia Gómez Maqueo Anaya, Henriette Gebauer, Samira Moussa Idrissa, Daniel Tetteh Quaye, Desire Degbe Fiogbe Attannon, Johannes Bühl, Martin Radenz, Bogdan Antonescu, Dragos Ene, Lukas Pfitzenmaier, Ewan O' Connor, Patric Seifert, Ioanna Mavropoulou, Thanasis Georgiou, Christos Spyrou, Eleni Drakaki, Anna Kampouri, Ioanna Tsikoudi, Antonis Gkikas, **Emmanouil Proestakis**, Luke Jones, Anca Nemuc, Moritz Haerig, Athina Floutsi, Albert Ansmann, Marija Bervida, Luka Drinovec, Uroš Jagodič, Blaž Žibert, Konrad Kandler, Arya Sree, Franco Marengo, Maria Kezoudi, Christos Keleshis, Jean Sciare, Birgit Heese, Dietrich Althausen, Nilton Manuel Evora Do Rosario, Corrine Almeida, Angela Benedetti, Ulla Wandinger, Doina Nicolae, Pavlos Kollias, Vassilis Amiridis, Rob Koopman, Jonas Von Bismarck, Thorsten Fehr: «First results from ASKOS as part of the JATAC campaign: Validation of Aeolus products and aerosol characterization using ground-based and airborne measurements», ESA Living Planet Symposium, Bonn, Germany, 2022.
30. Antonis Gkikas, Georgios Papangelis, Pantelis Kyriakidis, Eleni Drakaki, **Emmanouil Proestakis**, Anna Gialitaki, Eleni Marinou, Maria Tsihla, Jonilda Kushta, Theodoros Christoudias, Christos Spyrou, Angela Benedetti, Michael Rennie, Anna Kampouri, Anne Grete Straume, Christian Retscher, Alexandru Dandocsi, Jean Sciare, Vassilis Amiridis: «Towards improving dust forecasts via Aeolus wind data assimilation», ESA Living Planet Symposium, Bonn, Germany, 2022.
31. Antonis Gkikas and the **NEWTON team**: «Assessing the impact of Aeolus wind data assimilation on the Saharan dust simulations in the framework of the JATAC campaign», EGU General Assembly 2022, Vienna, Austria, 2022.
32. Pantelis Kiriakidis, Antonis Gkikas, George Papangelis, Eleni Drakaki, **Emmanouil Proestakis**, Anna Gialitaki, Eleni Marinou, Jonilda Kushta, Theodoros Christoudias, Christos Spyrou, Angela Benedetti, Michael Rennie, Anna Kampouri, Anna Grete Straume, Christian Retscher, Alexandru Dandocsi, Jean Sciare, Vassilis Amiridis: «The impact of assimilating AEOLUS wind data on regional Aeolian dust model simulations using WRF-Chem», EGU General Assembly 2022, Vienna, Austria, 2022.
33. E. Marinou, H. Baars, P. Paschou, R. Pirloaga, E. O' Connor, G. Močnik, N. Siomos, R. Engelmann, A. Skupin, M. Lenarčič, C. Zenk, E. Silva, E. Rodrigues, P. Silva, S. G. Maqueo Anaya, H. Gebauer, J. Bühl, M. Radenz, B. Antonescu, A. Nemuc, D. Ene, L. Pfitzenmaier, P. Seifert, I. Mavropoulou, T. Georgiou,

- C. Spirou, E. Drakaki, A. Kampouri, I. Tsikoudi, A. Gkikas, **E. Proestakis**, M. Haarig, A. Floutsi, A. Ansmann, M. Bervida, L. Drinovec, U. Jalgodič, B. Žibert, K. Kandler, A. Sudharaj, F. Marengo, M. Kezoudi, C. Keleshis, J. Sciare, B. Heese, D. Althausen, U. Wandinger, D. Nicolae, P. Kollias, V. Amiridis, R. Koopman, J. Von Bismarck, and T. Fehr: «The contribution of ACTRIS to the Joint Aeolus Tropical Atlantic Campaign in Cabo Verde», 1st ACTRIS Science Conference, 2022.
34. Jonilda Kushta, Theodoros Christoudias, Pantelis Kiriakidis, Antonis Gkikas, **Emmanouil Proestakis**, Eleni Marinou, Eleni Drakaki, Maria Tsichla, Anna Gialitaki, Anna Kampouri, Angela Benedetti, Michael Rennie, Anne Grete Straume, Christian Retscher, Alexandru Dandocsi, Jean Sciare, Vassilis Amiridis: «Aeolus wind data assimilation impact on aeolian dust modelling with WRF-CHEM», Aeolus 3rd Anniversary Conference, Taormina, Italy, 2022.
35. Antonis Gkikas, Georgios Papangelis, Eleni Drakaki, **Emmanouil Proestakis**, Anna Kampouri, Maria Tsichla, Eleni Marinou, Christos Spyrou, Angela Benedetti, Michael Rennie, Peristera Paschou, Nikolaos Siomos, Holger Baars, Anne Grete Straume, Christian Retscher, Alexandru Dandocsi, Ronny Engelmann, Annett Skupin, Dietrich Althausen, Ulla Wandinger, Zhenping Yin, Cordula Zenk, Vassilis Amiridis: «Assessing the impact of Aeolus wind data assimilation on the numerical simulations of Saharan dust outflows towards the Tropical Atlantic Ocean», Aeolus 3rd Anniversary Conference, Taormina, Italy, 2022.
36. Anna Kampouri, Vassilis Amiridis, Antonis Gkikas, **Emmanouil Proestakis**, Anna Gialitaki, Eleni Marinou, George Papangelis, Lucia Mona, Angela Benedetti, Michael Rennie, Anne Grete Straume, Prodromos Zanis: «First numerical experiments assessing the impact of Aeolus wind data assimilation on volcanic ash dispersion», Aeolus 3rd Anniversary Conference, Taormina, Italy, 2022.
37. Eleni Marinou, Holger Baars, Peristera Paschou, Griša Močnik, Nikos Siomos, Ronny Engelmann, Annet Skupin, Razvan Pirloaga, Matevž Lenarčič, Cordula Zenk, Eder Silva, Elizandro Rodrigues, Pericles Silva, Sofia Gómez Maqueo Anaya, Henriette Gebauer, Samira Moussa Idrissa, Daniel Tetteh Quaye, Desire Degbe Fiogbe Attannon, Johannes Bühl, Martin Radenz, Bogdan Antonescu, Dragos Ene, Lukas Pfitzenmaier, Ewan O' Conor, Patric Seifert, Ioanna Mavropoulou, Thanasis Georgiou, Christos Spyrou, Eleni Drakaki, Anna Kampouri, Ioanna Tsikoudi, Antonis Gkikas, **Emmanouil Proestakis**, Luke Jones, Anca Nemuc, Moritz Haarig, Athina Floutsi, Albert Ansmann, Marija Bervida, Luka Drinovec, Uroš Jagodič, Blaž Žibert, Konrad Kandler, Arya Sree, Franco Marengo, Maria Kezoudi, Christos Keleshis, Jean Sciare, Birgit Heese, Dietrich Althausen, Nilton Manuel Evora Do Rosario, Corrine Almeida, Angela Benedetti, Ulla Wandinger, Doina Nicolae, Pavlos Kollias, Vassilis Amiridis, Rob Koopman, Jonas Von Bismarck, Thorsten Fehr: «First results from ASKOS as part of the JATAC campaign: Validation of Aeolus products and aerosol characterization using ground-based and airborne measurements», Aeolus 3rd Anniversary Conference, Taormina, Italy, 2022.
38. George Papangelis, **Emmanouil Proestakis**, Antonis Gkikas, Eleni Drakaki, Christos Spyrou, Eleni Marinou, Anna Gialitaki, Maria Tsichla, Ioanna Tsikoudi, Anna Kampouri, Nikolaos Siomos, Thanasis Georgiou, Michael Rennie, Angela Benedetti, Vassilis Amiridis: «Potential impact of Aeolus assimilated wind fields on regional simulations of sea salt emission and transport», Aeolus 3rd Anniversary Conference, Taormina, Italy, 2022.
39. **Emmanouil Proestakis**, Antonis Gkikas, Georgios Papangelis, Eleni Drakaki, Eleni Marinou, Anna Gialitaki, Maria Tsichla, Ioanna Tsikoudi, Anna Kampouri, Alexandros Alexiou, Athanasios Georgiou, Michael Rennie, Angela Benedetti, Vassilis Amiridis: «First Assessment on Potential Improvements of Sea Salt Emissions Due to Assimilation of Aeolus Wind Fields», ATMOS 2021, 2021.
40. Anna Kampouri, Vassilis Amiridis, Antonis Gkikas, **Emmanouil Proestakis**, Anna Gialitaki, Eleni Marinou, George Papangelis, Lucia Mona, Angela Benedetti, Mike Rennie, Anne Grete Straume, Prodromos Zanis: «First Numerical Experiments Towards Assessing The Impact Of Aeolus Wind Assimilation On Volcanic Ash Dispersion», ATMOS 2021, 2021.
41. Antonis Gkikas, Georgios Papangelis, Eleni Drakaki, **Emmanouil Proestakis**, Anna Gialitaki, Eleni Marinou, Jonilda Kushta, Theodoros Christoudias, Pantelis Kiriakidis, Christos Spyrou, Angela Benedetti, Michael Rennie, Anna Kampouri, Anne Grete Straume, Christian Retscher, Alexandru Dandocsi, Jean Sciare, Vassilis Amiridis: «The NEWTON Project: Advancing Regional Dust Forecasts Via Aeolus Wind Data Assimilation», ATMOS 2021, 2021.

42. Michail Mytilinaios, Lucia Mona, Serena Trippetta, Francesca Barnaba, Sara Basart, Enza Di Tomaso, Oriol Jorba, Carlos Pérez García-Pando, **Emmanouil Proestakis**, Eleni Marinou, Antonis Gkikas, Vassilis Amiridis, Paola Formenti, Juan Cuesta, Claudia Di Biagio, Benoit Laurent, Beatrice Marticorena: «Evaluation of a high-resolution dust regional reanalysis using in-situ and remote sensing observations», WCRP-WWRP Symposium on Data Assimilation and Reanalysis, Bonn, Germany, 2021.
43. Peristera Paschou, Nikolaos Siomos, Vassilis Amiridis, Volker Freudenthaler, Alexandra Tsekeri, **Emmanouil Proestakis**, Antonis Gkikas, Anna Gialitaki, Eleni Marinou, Ioannis Biniotoglou, Charikleia Meleti, Dimitris Balis, George Georgoussis, George Doxastakis, Alexandros Louridas, Thomas Kanitz, Jonas Von Bismarck: «EVE: A reference lidar system for Cal/Val studies of space-borne missions», COMECAP 2021, Ioannina, Greece, 2021.
44. **Emmanouil Proestakis**, Antonis Gkikas, Alexandros Alexiou, Vassilis Amiridis: «First demonstration of a CALIPSO-based fine-mode and coarse-mode pure-dust product», COMECAP 2021, Ioannina, Greece, 2021.
45. **Emmanouil Proestakis**, Antonis Gkikas, Alexandros Alexiou, Athanasios Georgiou, Vassilis Amiridis: «First results of Saharan dust mass deposition fluxes along the Atlantic Ocean», COMECAP 2021, Ioannina, Greece, 2021.
46. Antonis Gkikas, Anna Gialitaki, Ioannis Biniotoglou, **Emmanouil Proestakis**, Peristera Paschou, Nikolaos Siomos, Anna Kampouri, Stavros Solomos, Panagiotis Kosmopoulos, Kalliopi Artemis Voudouri, Maria Mylonaki, Dimitris Balis, Alexandros Papayannis, Vassilis Amiridis: «First validation of AEOLUS L2A products over PANACEA sites», COMECAP 2021, Ioannina, Greece, 2021.
47. Antonis Gkikas, Giorgos Papangelis, Anna Gialitaki, Christos Spyrou, **Emmanouil Proestakis**, Eleni Marinou, Vassilis Amiridis: «Improving dust forecasts through assimilation of ESA-Aeolus wind profiles», COMECAP 2021, Ioannina, Greece, 2021.
48. Eleni Drakaki, Alexandra Tsekeri, Vassilis Amiridis, Stavros Solomos, Antonis Gkikas, **Emmanouil Proestakis**, Christos Spyrou, Sotirios Mallios, Eleni Marinou, Claire Ryder: «A modeling insight into the transport of large dust particles», EGU2021 General Assembly 2021, Vienna, Austria, 2021.
49. Ilias Fountoulakis, Kyriakoula Papachristopoulou, **Emmanouil Proestakis**, Antonis Gkikas, Panagiotis Ioannis Raptis, Nikolaos Siomos, Charalampos Kontoes, Stelios Kazadzis: «Effect of aerosol vertical distribution on the transfer of solar radiation through the atmosphere», EGU2021 General Assembly 2021, Vienna, Austria, 2021.
50. Vassilis Amiridis, Eleni Marinou, **Emmanouil Proestakis**, Antonis Gkikas, Alexandros Alexiou: «Desert dust lidar ratios and application to CALIPSO», CALIPSO Version 5 Aerosol Lidar Ratio Virtual Workshop, 2021.
51. Antonis Gkikas, Anna Gialitaki, Ioannis Biniotoglou, **Emmanouil Proestakis**, Peristera Paschou, Nikos Siomos, Anna Kampouri, Panagiotis Kosmopoulos, Marinou Eleni, Kalliopi Voudouri, Maria Mylonaki, Dimitris Balis, Alexandros Papayannis, Vassilis Amiridis: «First assessment of AEOLUS L2A products in the framework of PANACEA: Cal/Val aspects and evaluation results», Second Scientific Conference PANACEA, 2020.
52. Peristera Paschou, Nikos Siomos, Vassilis Amiridis, Volker Freudenthaler, Alexandra Tsekeri, **Emmanouil Proestakis**, Antonis Gkikas, Anna Gialitaki, Eleni Marinou, Ioannis Biniotoglou, Charikleia Meleti, Dimitris Balis, George Georgoussis, George Doxastakis, Alexandros Louridas, Thomas Kanitz, Jonas Von Bismarck: «EVE: The ESA's reference polarization lidar system for Aeolus Cal/Val activity in ASKOS campaign», AEOLUS Cal/Val and Scientific Workshop, Darmstadt, Germany, 2020
53. Antonis Gkikas, Anna Gialitaki, Ioannis Biniotoglou, **Emmanouil Proestakis**, Peristera Paschou, Nikolaos Siomos, Anna Kampouri, Stavros Solomos, Panagiotis Kosmopoulos, Kalliopi Artemis Voudouri, Maria Mylonaki, Dimitris Balis, Alexandros Papayannis, Vassilis Amiridis: «Validation of AEOLUS L2A products versus ground-based lidars of the PANACEA network», AEOLUS Cal/Val and Scientific Workshop, Darmstadt, Germany, 2020
54. Peristera Paschou, Alexandra Tsekeri, Nikos Siomos, Vassilis Amiridis, **Emmanouil Proestakis**, Antonis Gkikas, Anna Gialitaki, Eleni Marinou, Ioannis Biniotoglou, Charikleia Meleti, Dimitris Balis, Volker Freudenthaler, George Georgoussis, George Doxastakis, Alexandros Louridas, Silke Gross, Thomas Kanitz, Jonas Von Bismarck: «ESA-EVE polarization lidar: A novel mobile reference system for Cal/Val activities», 8th EarthCARE workshop, Fukuoka, Japan, 2019

55. Peristera Paschou, Alexandra Tsekeri, Nikos Siomos, Vassilis Amiridis, **Emmanouil Proestakis**, Antonis Gkikas, Anna Gialitaki, Eleni Marinou, Ioannis Binietoglou, Charikleia Meleti, Dimitris Balis, Volker Freudenthaler, George Georgoussis, George Doxastakis, Alexandros Louridas, Thomas Kanitz, Jonas Von Bismarck: «The ESA-EVE polarization lidar for Aeolus Cal/Val activity in ASKOS campaign», ACTRIS Remote Sensing Workshop, Rome, Italy, 2019
56. Antonis Gkikas, **Emmanouil Proestakis**, Anna Gialitaki, Peristera Paschou, Eleni Marinou, Alexandra Tsekeri, Stavros Solomos, Vassilis Amiridis: «First assessment of AEOLUS aerosol products versus ground-based lidar measurements obtained at Antikythera island», First PANACEA meeting, Heraklion, Kriti, Greece, 2019
57. Vassilis Amiridis, **ReACT group**: «Remote Sensing synergies at the island of Antikythera for multi-mission CalVal», First PANACEA meeting, Heraklion, Kriti, Greece, 2019
58. Peristera Paschou, **Emmanouil Proestakis**, Alexandra Tsekeri, Nikos Siomos, Antonis Gkikas, Anna Gialitaki, Eleni Marinou, Ioannis Binietoglou, Charikleia Meleti, Volker Freudenthaler, George Georgoussis, George Doxastakis, Alexandros Louridas, Jonas von Bismarck, Vassilis Amiridis: «The ESA-EVE polarization lidar for assessing the AEOLUS aerosol product performance», First PANACEA meeting, Heraklion, Kriti, Greece, 2019.
59. Vassilis Amiridis, Alexandra Tsekeri, Vassiliki Daskalopoulou, Eleni Marinou, Anna Gialitaki, **Emmanouil Proestakis**, Antonis Gkikas, Anton Lopatin, Josef Gasteiger, Joseph Ulanowski, Volker Freudenthaler: «Advancing the remote sensing of desert dust», SPIE Remote Sensing 2019, Strasbourg, France, 2019.
60. Peristera Paschou, **Emmanouil Proestakis**, Alexandra Tsekeri, Nikos Siomos, Antonis Gkikas, Anna Gialitaki, Eleni Marinou, Ioannis Binietoglou, Charikleia Meleti, Volker Freudenthaler, George Georgoussis, George Doxastakis, Alexandros Doxastakis, Jonas Von Bismarck, Vassilis Amiridis: «The ESA-EVE polarization lidar for assessing the AEOLUS aerosol product performance», 29th International Laser Radar Conference (ILRC29), Hefei, China, 2019.
61. Antonis Gkikas, **Emmanouil Proestakis**, Vassilis Amiridis, Carlos Pérez García-Pando, Stelios Kazadzis, Enza Di Tomaso, Alexandra Tsekeri, Eleni Marinou, Nikos Hatzianastassiou: «A synergy of MODIS-Aqua, MERRA-2 and CALIOP-CALIPSO for dust aerosols monitoring at global scale during the period 2007-2016», European Geosciences Union General Assembly 2019, Vienna, Austria, 2019.
62. Vassilis Amiridis, **Emmanouil Proestakis**, Antonis Gkikas, Alexandra Tsekeri, Anna Gialitaki, Eleni Marinou, Holger Baars, Ulla Wandinger: «Cal/Val considerations for space-based lidars», AEOLUS CAL/VAL & SCIENCE WORKSHOP 2019, Frascati, Italy, 2019.
63. Vassilis Amiridis, Dimitris Balis, Vassiliki Daskalopoulou, Athanassios Georgiou, Evangelos Gerasopoulos, Anna Gialitaki, Antonis Gkikas, Maria Kanakidou, Stelios Kazadzis, Charalampos Kontoes, Eleni Marinou, Nikos Mihalopoulos, Alexandros Papayannis, **Emmanouil Proestakis**, Stavros Solomos, Eleni Tetoni, Alexandra Tsekeri, Christos Zerefos: «Validation and exploitation of the FORUM mission products using the PANACEA infrastructure of PANGAEA Observatory», 1st Workshop on the Far-infrared Outgoing Radiation Understanding and Monitoring (FORUM) mission, Florence, Italy, 2018.
64. Dimitra Konsta, Ioannis Binietoglou, Antonis Gkikas, Stavros Solomos, Eleni Marinou, **Emmanouil Proestakis**, Sara Basart, Carlos Perez Garcia- Pando, Vassilis Amiridis: «Dust Model Evaluation Using the 3DLIVAS-CALIPSO Pure Dust Product», COMECAP 2018, 2018.
65. Vassilis Amiridis, Eleni Marinou, Alexandra Tsekeri, Michael Kottas, **Emmanouil Proestakis**, Eleni Tetoni, Anna Gialitaki, Vassiliki Daskalopoulou, Stavros Solomos, Antonis Gkikas, Dimitra Konsta, Doina Nicolae, Livio Belegante, Dragos Ene, Simona Andrei, Emil Carstea, Horatiu Stefanie, Alexandru Dandocsi, Mika Komppula, Maria Kanakidou, Nikos Michalopoulos, Nikos Kalivitis, George Kouvarakis, Marco Rosoldi, Monica Campanelli, Gelsomina Pappalardo, Ioannis Binietoglou, Stelios Kazadzis, Panagiotis Raptis, Joseph Ulanowski, Matthias Tesche, Detlef Mueller, Maria Kezoudi, Helen Smith, Franco Marengo, Dimitris Balis, Kalliopi Voudouri, Nikos Siomos, Slobodan Nickovic, Bojan Cvetkovic, Luka Illic, Philippe Goloub, Henri Diemoz, Yeser Aslanoglu, Victor Estelles, Sara Basart, Konstantinos Eleftheriadis, George Hloupis, Bernadett Weinzierl, Prodromos Fetftatzis: «The PreTECT campaign-Revealing the secrets of desert dust», European LiDAR Conference 2018, 2018.

66. Konstantinos Fragkos, Emil Carstea, **Emmanouil Proestakis**, Antonis Gkikas, Nikos Siomos, Vassilis Amiridis, Dimitris Balis, Doina Nicolae: «Nine year of aerosol measurement in Magurele: Climatology and trends», 4th ACTRIS -2 General Meeting, 2018.
67. Li, W., El-Askary, H., Qurban, M. A, **Proestakis E.**, Garay M. J., Kalashnikova, O. V., Amiridis, V., Gkikas, A., Marinou, E., and Manikandan, K. P.: Investigation of the Impacts of Dust and Climate Change on Ocean Productivity in the Red Sea, European Geosciences Union General Assembly 2018, Vienna, 8-13 April 2018.
68. Antonis Gkikas, **Emmanouil Proestakis**, Eleni Marinou, Vassilis Amiridis, Stelios Kazadzis, Nikos Hatzianastassiou: «A synergistic use of passive and active satellite retrievals for dust identification at global scale», COMECAP2018, 2018.
69. Wenzhao Li, Hesham El-Askary, Mohamed Qurban, **Emmanouil Proestakis**, Michael Garay, Olga Kalashnikova, Vassilis Amiridis, Antonis Gkikas, Eleni Marinou, Kp Manikandan: «Investigation of the Impacts of Dust and Climate Change on Ocean Productivity in the Red Sea», European Geosciences Union General Assembly 2018, 2018.
70. Marinou, E., Amiridis, V., Tsekeri, A., Solomos, S., Kokkalis, P., **Proestakis, E.**, Kottas, M., Biniotoglou, I., Zanis, P., Kazadzis, S., Wandinger, U. and Ansmann, A.: 3D Structure of Saharan Dust Transport Towards Europe as Seen by CALIPSO, vol. 119., 2016.

TEACHING ACTIVITIES

- Transfer of know-how in satellite remote sensing technology and data exploitation from NOA-Greece to INOE-Romania in the framework of the ECARS Twinning programme (grant agreement No. 602014), to boost INOE's research capacity in the domain of atmospheric remote sensing and create a pole of excellence in East Europe (<http://ecars.inoe.ro/index.php/project/>).
- Teaching assistant for the Master of Science in Space Science Technologies and Applications (<https://space.uop.gr/>) organized by the University of Peloponnese and the National Observatory of Athens (2015-2019). Courses: (1) Fundamentals of remote sensing, (2) Space Science Technology and Applications, and (3) Advanced Space Application.
- Hellenic Association for Aerosol Research HAAR Summer School, 18-24th of May 2017 - Navarino Environmental Observatory, Greece.

MEMBERSHIPS & REVIEWING ACTIVITIES

Member of Scientific Groups

Member of the Scientific Groups:

1. Member of the [Atmospheric Physics and Chemistry Group](#) (APCG).
2. Member of the [ReACT/IAASARS](#) group of [NOA](#).
3. [European Geosciences Union](#).
4. [Hellenic Association for Aerosol Research](#).
5. European Aerosol Research Lidar Network to Establish an Aerosol Climatology: [EARLINET](#).

Workshops

Participation in several workshops related to aerosol and cloud science and atmospheric re-mote sensing (i.e., in the framework of ACTRIS and ESA EarthCARE Validation Workshops).

Reviewer in Journals

[Atmospheric Chemistry and Physics](#) (ACP) journal (Copernicus, European Geo-physical Union, IF=6.3).
[Atmospheric Measurement and Techniques](#) (AMT) journal (Copernicus, European Geophysical Union, IF=4.1).
[Atmospheric Research journal](#) (Elsevier, IF=5.5).
[Meteorology and Atmospheric Physics Journal](#) (IF=2.3).

Experimental Campaigns

Participation in the experimental campaigns: (1) [PRE-TECT](#) (2017), (2) [CIIMA](#) (2017), (3) [ACTRIS JRA1](#), and the (4) [ESA-ASKOS](#) campaign.

FELLOWSHIPS and AWARDS

06/2023 - Present Day: Principal Investigator (PI) of the [EO4AQ-DustFM fellowship-project](#) under the [AXA Research Fund](#) for postdoctoral researchers' framework.

02/2020-01/2022: [State Scholarships Foundation \(IKY\) - «Ενίσχυση Μεταδιδακτόρων ερευνητών/ερευνητριών - Β΄ Κύκλος» - \(MIS 5033021\)](#). PI of the project “Ερημική σκόνη και εναπόθεση της στα θαλάσσια οικοσυστήματα - από την Έρημο Σαχάρα στον Ατλαντικό Ωκεανό και τη Μεσόγειο Θάλασσα” for postdoctoral researchers.

2016 - 2017: Educational grant for the PhD Research, [A. G. Leventis Foundation](#), Greece.

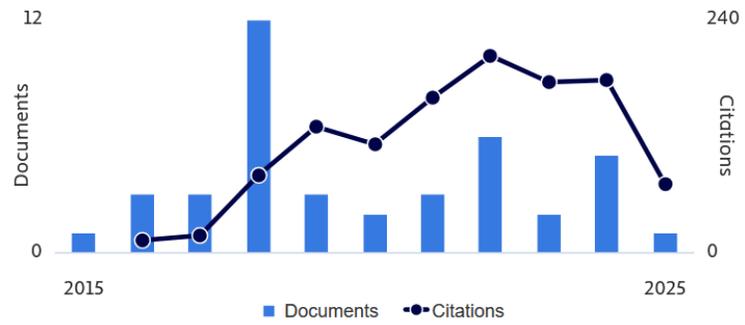
2017: ‘Travel Grant Award’, 28st International Lidar and Radar Conference, Bucharest, Rumania.

RESEARCH projects

Project Title	Funding Source	Period	Role of the PI
OREO	ESA	2025-2027	PI , financial and administrative management and part of the scientific implementation of the projects' activities.
EO4AQ-DustFM	AXA Research Fund	2023-present day	PI , financial and administrative management and full scientific implementation of the projects' activities.
L2A+	ESA	2022-2023	WP-leader - Satellite EO products/algorithms
IKY-18549 Saharan Dust and Ocean Biogeochemistry	IKY	02/2020-01/2022	PI , financial and administrative management and full scientific implementation of the projects' activities.
NEWTON	ESA	2021-2021	Satellite Observations and products - analysis
CORAL	ESA	2020-2021	WP-leader - Satellite EO products/algorithms
Proteas II	EU-ΕΠΑνΕΚ-ΕΣΠΑ	2018-2020	Satellite Observations and products - analysis
EKAD ³	SNF donations	2016-2017	Algorithms' development.
ECARS	H2020-TWINNING project	2017	Satellite Cal/Val activities.
ACTRIS	EU Horizon 2020	2015-2018	Satellite Observations and products - analysis
MarcoPolo	FP7	2014-2015	Satellite Observations and products - analysis
TALOS	EU-ΕΠΑνΕΚ-ΕΣΠΑ	2014-2015	Satellite Observations and products - analysis

Source: [Scopus](#)
(last visit 12/06/2025)

Document & citation trends



[Citation overview](#) [Analyze author output](#)