

## PERSONAL INFORMATION



### Ilias Fountoulakis

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Sex male | Date of birth 11/07/1981 | Nationalities Greek, American

Married with two children

## SUMMARY

Ilias Fountoulakis (IF) studied physics at the Faculty of Science of the Aristotle University of Thessaloniki (AUTH), Greece, and got his BA degree in 2008. He got his MSc degree in environmental physics in 2011 at AUTH, and PhD diploma in atmospheric physics in 2017 at the Laboratory of Atmospheric Physics of the same university (LAP-AUTH) under the supervision of Prof. A Bais.

His main scientific interests are:

- Stratospheric ozone and solar UV radiation
- Spectral solar radiation measurements and modelling
- Solar energy measurements and modelling
- Ground- and satellite-based remote sensing of the atmospheric composition
- Aerosol radiative effects
- Climatological analysis of solar radiation, aerosol optical properties and atmospheric parameters on global and regional scales

From 2010 to 2017 IF worked as a researcher (as a post-graduate student in 2010 – 2011, PhD student in 2012 – 2016, post-doctoral researcher in 2017) at LAP-AUTH. His research at LAP-AUTH was mainly focused on the measurements and the climatological analysis of the levels of surface solar ultraviolet (UV) radiation and the atmospheric parameters that are mainly affecting it (i.e., stratospheric ozone, aerosols, and clouds). Additionally, he investigated the past and future changes of the spectral solar UV radiation using radiative transfer modelling and projections from global climate models. In 2010 – 2017 he was responsible for the maintenance and the calibration of the two Brewer spectrophotometers operating at LAP-AUTH, and contributed to the maintenance, characterization and calibration of various radiometers and spectroradiometers. He also worked for a short time (September – December 2017) for the Atmospheric Observatory of Izaña, Tenerife, Spain and contributed to the writing of the online documentation of the European Brewer Network (EUBREWNET).

From 2018 to 2020 IF worked as a researcher for the Regional Agency for the Protection of Environment of the Aosta Valley, Italy (ARPA VdA). His research at ARPA VdA was again mainly focused on the measurements and the climatological analysis of the levels of surface solar UV radiation. Furthermore, he successfully set up and initialized a new optical laboratory. In 2018 – 2019 IF also kept collaborating closely with LAP-AUTH performing research relative to the retrieval and the climatological analysis of the aerosol optical properties in the UV in Thessaloniki,

Greece.

Since 2020, IF is a research associate at the Institute of Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS) of the National Observatory of Athens (NOA) where his research is mainly focused on the measurements, modelling and climatological analysis of solar radiation and energy over Europe and the broader region of Eastern Mediterranean. Through his work at NOA IF has gained experience relative to the exploitation of satellite retrievals for the development of solar UV radiation and solar energy related applications. He also uses satellite and ground-based datasets for the quantification of the effects of different atmospheric parameters on the levels of solar (UV and total) radiation and energy, with special attention on the radiative effects of aerosols.

In October 2021 – September 2022 IF was a teaching fellow at the Department of Environmental Engineering of the University of Patras, Greece, teaching courses relative to atmospheric physics, air pollution and global climate. He has also teaching experience in the postgraduate programs “Environmental Physics” of the AUTH (co-teaching one course in 2017) and is supervising one doctoral thesis. Since January 2024 he is also a member of the Academic committee of the interdisciplinary post-graduate program “Protection of Cultural Heritage and Monuments of Nature from the Effects of Climate Change” of the Hellenic Open University.

Since January 2023 IF is an assistant researcher at the Research Centre for Atmospheric Physics and Climatology of the Academy of Athens (KEFAK), Greece. At KEFAK his research is focused on solar UV radiation and stratospheric ozone, aerosol optical properties and radiative effects, and the monitoring of atmospheric and soil parameters for climate change adaptation.

IF (Scopus author ID: 56568211800) has co-authored 42 papers (leading author at 13) published in peer-reviewed scientific journals which have received at least 527 citations (h index = 15). Four of the papers are published to journals with an impact factor larger than 10. He has also co-authored 22 conference papers and more than 95 abstracts in national and international conferences.

Since 2010 IF has participated in 19 national and international research projects. He has also participated in three field campaigns (related to measurements of spectral solar UV irradiance and/or columnar ozone), two international summer schools, and one short term scientific mission. He has been an active reviewer for more than 25 scientific journals.

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## WORK EXPERIENCE

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- 01/2023 – present**  
*Organization* **Assistant (grade C) Researcher**  
**Research Centre for Atmospheric Physics and Climatology, Academy of Athens, Greece**
- Main duties*
- Investigate the variability in solar radiation with emphasis in the UV spectral region
  - Investigate the variability in stratospheric ozone and other gases
  - Study aerosol optical properties and aerosol radiative effects
  - Monitoring of atmospheric and soil parameters for climate change adaptation
- 11/2020 – present**  
*Organization* **Research associate**  
**Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing, National Observatory of Athens, Greece**
- Main duties*
- Climatological analysis of the levels of UV and total solar radiation and solar energy over Europe and the broader region of Eastern Mediterranean, and quantification of the attenuation by aerosols and clouds.
  - Transfer of knowledge from the national observatory of Athens to the University of Cyprus relative to the monitoring and the forecasting of solar radiation and energy with the use of Earth observation datasets
  - Radiative transfer modelling for solar energy applications
  - Validation of estimates of surface UV and total solar radiation from satellite measurements and forecast models.
- 10/2021 – 09/2022**  
*Organization* **Teaching fellow**  
**Department of Environmental Engineering, University of Patras, Agrinio, Greece**
- Main duties*
- Teaching pre-graduate courses relative to Atmospheric Physics, Air Pollution, and Global Climate
- 01/2018 – 11/2020**  
*Organization* **Post doctoral research associate**  
**Regional Environmental Protection Agency (ARPA) Valle d’ Aosta, Saint Christophe, Aosta, Italy**
- Main duties*
- Investigate the variability in UV radiation over Italy with respect to the variability in local meteorological and climatic conditions, stratospheric ozone and air quality.
  - Setup and initialisation of a new optical laboratory
  - Calibration and characterization of a Bentham spectroradiometer for solar UV and visible (VIS) radiation monitoring
  - QA/QC of spectral and broad-band radiometric measurements in the UV and VIS regions
  - Validation of estimates of surface UV irradiance from satellite measurements and forecast models.
  - Software development for data analysis and storage (using mainly Python and MATLAB)
- 09/2017 – 12/2017**  
*Organization* **Post doctoral research associate**  
**Izaña Atmospheric Observatory, Canary Islands, Tenerife, Spain**
- Main duties*
- Documentation of the EUBREWNET database
  - Development of scientific software for the EUBREWNET database
- 01/2017 – 09/2019**  
*Organization* **Post doctoral research associate**  
**Laboratory of Atmospheric Physics, Aristotle University of Thessaloniki, Greece**
- Main duties*
- Climatological analysis of aerosol optical properties in UV and VIS over Thessaloniki, Greece
  - Maintenance and calibration of spectrophotometers, and broad-band radiometers for the monitoring of solar radiation and atmospheric composition.
  - Optimization of algorithms for the retrieval of aerosol optical properties in the UV.

- 01/2012 – 11/2016** **PhD student/Research associate**
- Organization* **Laboratory of Atmospheric Physics, Aristotle University of Thessaloniki, Greece**
- Main duties*
- Climatological study of spectral solar UV radiation and biologically effective UV doses on regional and global scale using ground-based measurements, projections from global climate models, and radiative transfer model simulations.
  - Calibration and maintenance of two Brewer spectroradiometers
  - QA/QC of measurements of the solar UV irradiance and the columnar ozone
  - Contribution to the validation of satellite products such as total ozone and solar UV irradiance.
  - Contribution to the installation, calibration and maintenance of pyranometers and radiometers in a number of stations of the UVNET (national UV monitoring network of Greece) and EDHE (Hellenic Network of Solar Energy) networks
- 04/2010 – 12/2011** **Postgraduate research assistant**
- Organization* **Laboratory of Atmospheric Physics, Aristotle University of Thessaloniki, Thessaloniki, Greece**
- Main duties*
- Calibration and maintenance of the the two Brewer spectroradiometers operating at LAP-AUTH
  - QA/QC of global and direct spectral UV measurements from Brewer spectroradiometers.
  - Contribution to the installation, calibration and maintenance of pyranometers and radiometers in a number of stations of the UVNET and EDHE networks

## EDUCATION

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- 01/2012 – 01/2017** **PhD in Physics (Atmospheric Physics)** EQF level 8
- Institute* Aristotle University of Thessaloniki (Greece)
- Subject* Long term trends of the spectral solar UV irradiance
- Grade* Excellent
- 09/2009 – 10/2011** **MSc in Environmental Physics** EQF level 6
- Institute* Aristotle University of Thessaloniki (Greece)
- Grade* 96.0%
- 09/2001 – 07/2008** **BA in Physics** EQF level 5
- Institute* Aristotle University of Thessaloniki (Greece)
- Grade* 78.4%

## LANGUAGES

Mother tongue(s) Greek

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
	First Certificate in English by the University of Cambridge				
Italian	A2	A2	A2	A1	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user  
[Common European Framework of Reference for Languages](#)

## PUBLICATIONS

Publications in peer reviewed journals

IF has co-authored **42** scientific papers published in peer-reviewed journals. He is the leading author of **13**. A detailed list of publications is provided in annex I.

Presentations in conferences

IF has co-authored **22** papers and **95** abstracts published in the proceedings of national and international conferences. Detailed lists of the conference papers and presentations are provided in annexes II and III respectively.

Invited talks

- **Fountoulakis I.**, and H. Diémoz: Monitoring of spectral UV irradiance in Aosta, Saint-Christophe, Italy: from measurements to data analysis. VII convegno nazionale agenti fisici, Stresa, Italy, 5-7 giugno 2019
- **Fountoulakis I.**, Long-term variability of human health-related solar ultraviolet-B radiation doses from the 1980s to the end of the 21st century, IAMAS Early Career Scientist webinars, 30.11.2023

Theses

- **I. Fountoulakis**: “Long term trends of the spectral solar UV radiation” PhD Thesis, University of Thessaloniki, Physics Department, (2016)
- **I. Fountoulakis**: “Evaluation of the operation and the optical characteristics of the spectrophotometer Brewer with serial number 86” MSc Thesis, University of Thessaloniki, Physics Department, (2011)
- **I. Fountoulakis**: “Development and application of methodology for the use of the YES-UVB-1 actinometer as an instrument for the measurement of the UVB irradiance” BA degree Thesis, University of Thessaloniki, Physics Department, (2008)

Reports

- **I. Fountoulakis**: Report of the Short-term Scientific Mission: “Correction of the Brewer measurements for the dead time effect” (COST-STSM-ES1207-21218), 04 November 2014

Other documents

- <http://rbce.aemet.es/dokuwiki/doku.php> (co-author of the online documentation of EUBREWNET)
- **I. Fountoulakis** and C. Zerefos: Uncertainties in Future Surface UV-B Doses in a Climatically Disturbed World: Chapter in book: 35th Anniversary Protecting the Ozone Layer, UNEP, December, 2022

Citations Scopus (author ID: 56568211800): **527** citations (383 excluding self-citations), h-index=**15**

## TEACHING

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- Courses
- Teaching fellow at the Department of Environmental Engineering of the University of Patras, Greece during the academic year 2021 – 2022. IF was responsible for the preparation and the teaching of three pre-graduate courses: “Atmospheric Physics”, “Air pollution”, “Greenhouse effect and climatic changes”.
  - Co-teaching of the course “Computational tools for Environmental Research”, Environmental physics MSc program, AUTH (2017). The subject of his teaching was to introduce MATLAB as a tool for analysis and processing of scientific datasets.
  - Teaching assistant of the course “Atmospheric Technology”, Physics Department BA program, AUTH (2013 - 2015). His main duty was to describe the methodology for the calibration of radiometric instruments used for measurements of the solar irradiance.
  - Teaching assistant of the course “Basic Principles of Astronomy”, Physics Department BA program, AUTH (2006). His main duties were to assist pre-graduate students in the context of the course and to correct and grade exercises.

## POSTIONS OF RESPONSIBILITY

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Hellenic Open University Member of the curriculum committee of the interdisciplinary post-graduate program “Protection of Cultural Heritage and Monuments of Nature from the Effects of Climate Change”

## ADDITIONAL INFORMATION

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Reviewer in scientific journals IF is a reviewer for the following **29** scientific journals (detailed list of journals including publisher and 2022 impact factor in Annex IV)

- Advisor in journals
- Advisory board in [Preprints.org](https://preprints.org)
  - Topics advisory panel in [Atmosphere](https://atmosphere.mdpi.com/) (MDPI, IF: 2.9)

Reviewer of PhD dissertation “Development of a novel sunphotometer for aerosol and dust characterization in the atmosphere”, Thesis of Agostino Tettamanti, Università Degli Studi di Milano, Dipartimento di Fisica, supervisor: Prof. Marco Alberto Carlo Potenza, 2019, (link: <https://air.unimi.it/handle/2434/694406>)

- Evaluator of scientific proposals
- Evaluator of one proposal submitted to the Arctic Research Council
  - Evaluator of one proposal submitted to the Research Council (TRC) of the Sultanate of Oman

Organization of meetings conferences

- COST-Action HARMONIA meeting with title: “Maximizing aerosol measurement use from ground based photometers”, Academy of Athens, Greece, 18 - 19 September 2023

- Field Campaigns**
- THE 14th INTERCOMPARISON CAMPAIGN OF THE REGIONAL BREWER CALIBRATION CENTER-EUROPE, “El Arenosillo” Atmospheric Sounding Station, INTA, Huelva, Spain, June 17 – June 28, 2019
  - THE XII INTERCOMPARISON CAMPAIGN OF THE REGIONAL BREWER CALIBRATION CENTER-EUROPE & COST ACTION ES1207 EUBREWNET CAMPAIGN - ATMOZ (Traceability of Atmospheric Total Ozone) Field demonstration campaign, “El Arenosillo” Atmospheric Sounding Station, INTA, Huelva, Spain, May 29 – June 07, 2017
  - THE X INTERCOMPARISON CAMPAIGN OF THE REGIONAL BREWER CALIBRATION CENTER-EUROPE & COST ACTION ES1207 EUBREWNET CAMPAIGN, “El Arenosillo” Atmospheric Sounding Station, INTA, Huelva, Spain, May 27 – June 05, 2015
- International schools (trainee)**
- 17th WMO-GAW BREWER OPERATOR COURSE, “El Arenosillo” Atmospheric Sounding Station, INTA, Huelva, Spain, June 17 – June 21, 2019
  - 14th WMO-GAW BREWER USERS GROUP MEETING, EUBREWNET & WMO GAW BREWER OPERATOR COURSE, State Meteorological Agency of Spain, Santa Cruz de Tenerife, Spain, 24th – 28th March 2014
- International schools (trainer)**
- Sky over Berlin, aerosol measurements workshop in the context of the EU Cost Action HARMONIA, Berlin, Lindenberg, Germany, April 8 -10, 2024
- Honours and awards**
- Travelling grant for the participation at the conference of the Italian Regional Environmental Protection Agencies “VII convegno nazionale agenti fisici, Stresa, Italy, 5-7 giugno 2019” as an invited speaker.
  - IUGG travelling grant for the participation in 26th General Assembly of the International Union of Geodesy and Geophysics (IUGG), held in Prague, Czech Republic, June 22 – July 2, 2015.
  - COST ACTION ES1207 travelling grant for the Short-Term Scientific Mission: “Correction of the Brewer measurements for the dead time effect” (COST-STSM-ES1207-21218), (September 28 – October 8, 2014)
- Memberships**
- Member of the EGU
- Projects**
- IF has worked in **19** (17 under contract and 2 cost actions) national and international projects as a research scientist. A detailed list of the projects and the work carried out for each one of them is provided in annex V.



## Annex I - List of peer reviewed papers

### 2024

- J1. **Fountoulakis, I.**, Tsekeri, A., Kazadzis, S., Amiridis, V., Nersesian, A., Tsihla, 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**, *Atmos. Chem. Phys.*, 24, 4915–4948, <https://doi.org/10.5194/acp-24-4915-2024>, 2024.
- J2. Papachristopoulou, K., **Fountoulakis, I.**, Bais, A. F., Psiloglou, B. E., Papadimitriou, N., Raptis, I.-P., Kazantzidis, A., Kontoes, C., Hatzaki, M., and Kazadzis, S.: **Effects of clouds and aerosols on downwelling surface solar irradiance nowcasting and short-term forecasting**, *Atmos. Meas. Tech.*, 17, 1851–1877, <https://doi.org/10.5194/amt-17-1851-2024>, 2024.

### 2023

- J3. Kouklaki, D.; Kazadzis, S.; Raptis, I.-P.; Papachristopoulou, K.; **Fountoulakis, I.**; Eleftheratos, K.: **Photovoltaic Spectral Responsivity and Efficiency under Different Aerosol Conditions**. *Energies*, 16, 6644. <https://doi.org/10.3390/en16186644>, 2023
- J4. Masoom, A., **Fountoulakis, I.**, Kazadzis, S., Raptis, I.-P., Kampouri, A., Psiloglou, B. E., Kouklaki, D., Papachristopoulou, K., Marinou, E., Solomos, S., Gialitaki, A., Founda, D., Salamalikis, V., Kaskaoutis, D., Kouremeti, N., Mihalopoulos, N., Amiridis, V., Kazantzidis, A., Papayannis, A., Zerefos, C. S., and Eleftheratos, K.: **Investigation of the effects of the Greek extreme wildfires of August 2021 on air quality and spectral solar irradiance**, *Atmos. Chem. Phys.*, 23, 8487–8514, <https://doi.org/10.5194/acp-23-8487-2023>, 2023.
- J5. Raptis, I.-P., Kazadzis, S., **Fountoulakis, I.**, Papachristopoulou, K., Kouklaki, D., Psiloglou, B.E., Kazantzidis, A., Benetatos, C., Papadimitriou, N., Eleftheratos, K.: **Evaluation of the Solar Energy Nowcasting System (SENSE) during a 12-Months Intensive Measurement Campaign in Athens, Greece**, *Energies*, 16, 5361. <https://doi.org/10.3390/en16145361>, 2023
- J6. Zerefos, C., **Fountoulakis, I.**, Eleftheratos, K., and Kazantzidis, A.: **The long-term variability of human health related solar ultraviolet-B radiation doses from the 1980s to the end of 21st century**, *Physiological Reviews*, 103:3, 1789-1826, <https://doi.org/10.1152/physrev.00031.2022>, 2023
- J7. Petkov, B. H., Vitale, V., Di Carlo, P., Drofa, O., Mastrangelo, D., Smedley, A. R. D., Diémoz, H., Siani, A.-M., **Fountoulakis, I.**, Webb, A. R., Bais, A., Kift, R., Rimmer, J., Casale, G.-R., Hansen, G. H., Svendby, T., Pazmiño, A., Werner, R., Atanassov, A. M., Láska, K., De Backer, H., Mangold, A., Köhler, U., Velazco, V. A., Stübi, S. Solomatnikova, A., Pavlova, K., Sobolewski, P. S., Johnsen, B., Goutail, F., Mišaga, O. Aruffo, E., Metelka, L., Tóth, Z., Fekete, D., Aculinin, A. A. Lupi, A., Mazzola, M., Zardi, F.: **An unprecedented Arctic ozone depletion event during spring 2020 and its impacts across Europe**. *Journal of Geophysical Research: Atmospheres*, 128, e2022JD037581. <https://doi.org/10.1029/2022JD037581>, 2023

### 2022

- J8. Papachristopoulou, K., Raptis, I.-P., Gkikas, A., **Fountoulakis, I.**, Masoom, A., and Kazadzis, S.: **Aerosol optical depth regime over megacities of the world**, *Atmos. Chem. Phys.*, 22, 15703–15727, <https://doi.org/10.5194/acp-22-15703-2022>, 2022.



- J9. Eleftheratos, K., Kapsomenakis, J., **Fountoulakis, I.**, Zerefos, C. S., Jöckel, P., Dameris, M., Bais, A. F., Bernhard, G., Kouklaki, D., Tourpali, K., Stierle, S., Liley, J. B., Brogniez, C., Auriol, F., Diémoz, H., Simic, S., Petropavlovskikh, I., Lakkala, K., and Douvis, K.: **Ozone, DNA-active UV radiation, and cloud changes for the near-global mean and at high latitudes due to enhanced greenhouse gas concentrations**, *Atmos. Chem. Phys.*, 22, 12827–12855, <https://doi.org/10.5194/acp-22-12827-2022>, 2022.
- J10. Papachristopoulou, K., **Fountoulakis, I.**, Gkikas, A., Kosmopoulos, P.G., Nastos, P.T., Hatzaki, M., Kazadzis, S.: **15-Year Analysis of Direct Effects of Total and Dust Aerosols in Solar Radiation/Energy over the Mediterranean Basin**, *Remote Sensing*, 14, 7, <https://doi.org/10.3390/rs14071535>, 2022
- J11. Karagiozidis, D., Friedrich, M.M., Beirle, S., Bais, A., Hendrick, F., Voudouri, K.A., **Fountoulakis, I.**, Karanikolas, A., Tzoumaka, P., Van Roozendaal, M., Balis, D., Wagner, T.: **Retrieval of tropospheric aerosol, NO<sub>2</sub>, and HCHO vertical profiles from MAX-DOAS observations over Thessaloniki, Greece: intercomparison and validation of two inversion algorithms**, *Atmos. Meas. Tech.*, 15, 5, pp. 1269–1301, <https://doi.org/10.5194/amt-15-1269-2022>, 2022
- J12. **Fountoulakis, I.**, Papachristopoulou, K., Proestakis, E., Amiridis, V., Kontoes, C., Kazadzis, S.: **Effect of Aerosol Vertical Distribution on the Modeling of Solar Radiation**, *Remote Sensing*, 14, 5, <https://doi.org/10.3390/rs14051143>, 2022
- J13. Chatzimpaloglou, A., Christophoridis, C., Nika, M.-C., Aalizadeh, R., **Fountoulakis, I.**, Thomaidis, N. S., Bais, A. F., Fytianos, K.: **Degradation of antineoplastic drug etoposide in aqueous environment by photolysis and photocatalysis. Identification of photocatalytic transformation products and toxicity assessment**, *Chemical Engineering Journal*, 431, 2, <https://doi.org/10.1016/j.cej.2021.133969>, 2022.
- 2021**
- J14. **Fountoulakis, I.**, Diémoz, H., Siani, A. M., di Sarra, A., Meloni, D., and Sferlazzo, D. M.: **Variability and trends in surface solar spectral ultraviolet irradiance in Italy: on the influence of geopotential height and lower-stratospheric ozone**, *Atmos. Chem. Phys.*, 21, 18689–18705, <https://doi.org/10.5194/acp-21-18689-2021>, 2021.
- J15. Fasano, G., Diémoz, H., **Fountoulakis, I.**, Cassardo, C., Kudo, R., Siani, A.M., Ferrero, L.: **Vertical profile of the clear-sky aerosol direct radiative effect in an Alpine valley, by the synergy of ground-based measurements and radiative transfer simulations**. *Bull. of Atmos. Sci. & Technol.* 2, 11. <https://doi.org/10.1007/s42865-021-00041-w>. 2021
- J16. Petkov, B., Vitale, V., Di Carlo, P., Mazzola, M., Lupi, A., Diémoz, H., **Fountoulakis, I.**, Drofa, O., Mastrangelo, D., Casale, G.-R., and Siani, A.-M.: **The 2020 Arctic ozone depletion and signs of its effect on the ozone column at lower latitudes**. *Bull. of Atmos. Sci. & Technol.* 2, 8 (2021). <https://doi.org/10.1007/s42865-021-00040-x>, 2021
- J17. Kosmopoulos, P. G., Kazadzis, S., Schmalwieser, A. W., Raptis, P. I., Papachristopoulou, K., **Fountoulakis, I.**, Masoom, A., Bais, A. F., Bilbao, J., Blumthaler, M., Kreuter, A., Siani, A. M., Eleftheratos, K., Topaloglou, C., Gröbner, J., Johnsen, B., Svendby, T. M., Vilaplana, J. M., Doppler, L., Webb, A. R., Khazova, M., De Backer, H., Heikkilä, A., Lakkala, K., Jaroslowski, J., Meleti, C., Diémoz, H., Hülsen, G., Klotz, B., Rimmer, J., and Kontoes, C.: **Real-time UV index retrieval in Europe using Earth observation-based techniques: system description and quality assessment**, *Atmos. Meas. Tech.*, 14, 5657–5699, <https://doi.org/10.5194/amt-14-5657-2021>, 2021.
- J18. **Fountoulakis, I.**, Kosmopoulos, P., Papachristopoulou, K., Raptis, I.-P., Mamouri, R.-E., Nisantzi, A., Gkikas, A., Witthuhn, J., Bley, S., Moustaka, A., Buehl, J., Seifert, P., Hadjimitsis, D.G., Kontoes, C., Kazadzis, S.: **Effects of Aerosols and Clouds on the Levels of Surface Solar Radiation and Solar Energy in Cyprus**. *Remote Sens.* 13, 2319, <https://doi.org/10.3390/rs13122319>, 2021.
- J19. Isaia, G., Diémoz, H., Maluta, F., **Fountoulakis, I.**, Ceccon, D., di Sarra, A., Facta, S., Fedele, F., Lorenzetto, G., Siani, A. M., and Isaia, G.: **Does solar ultraviolet radiation play a role in COVID-19 infection and deaths? An environmental**

**ecological study in Italy.** Science of The Total Environment, 143757, <https://doi.org/10.1016/j.scitotenv.2020.143757>, 2020.

- J20. Chatzimpaloglou, A., Christophoridis, C., **Fountoulakis, I.**, Antonopoulou, M., Vlastos, D., Bais, A., and Fytianos, K.: **Photolytic and photocatalytic degradation of antineoplastic drug irinotecan. Kinetic study, identification of transformation products and toxicity evaluation.** Chemical Engineering Journal, 405, 126866, <https://doi.org/10.1016/j.cej.2020.126866>, 2021.

## **2020**

- J21. Lakkala, K., Kujanpää, J., Brogniez, C., Henriot, N., Arola, A., Aun, M., Auriol, F., Bais, A. F., Bernhard, G., De Bock, V., Catalfamo, M., Deroo, C., Diémoz, H., Egli, L., Forestier, J.-B., **Fountoulakis, I.**, Garane, K., Garcia, R. D., Gröbner, J., Hassinen, S., Heikkilä, A., Henderson, S., Hülsen, G., Johnsen, B., Kalakoski, N., Karanikolas, A., Karppinen, T., Lamy, K., León-Luis, S. F., Lindfors, A. V., Metzger, J.-M., Minvielle, F., Muskatel, H. B., Portafaix, T., Redondas, A., Sanchez, R., Siani, A. M., Svendby, T., and Tamminen, J.: **Validation of the TROPOspheric Monitoring Instrument (TROPOMI) surface UV radiation product.** Atmos. Meas. Tech., 13, 6999–7024, <https://doi.org/10.5194/amt-13-6999-2020>, 2020.
- J22. **Fountoulakis, I.**, Diémoz, H., Siani, A. M., Hülsen, G., and Gröbner, J.: **Monitoring of solar spectral ultraviolet irradiance in Aosta, Italy,** Earth Syst. Sci. Data, 12, 2787-2810, <https://doi.org/10.5194/essd-12-2787-2020>, 2020.
- J23. Vitt, R., Laschewski, G., Bais, A. F., Diémoz, H., **Fountoulakis, I.**, Siani, A.-M., and Matzarakis, A.: **UV-Index Climatology for Europe Based on Satellite Data.** Atmosphere, 11, <https://doi.org/10.3390/atmos11070727>, 2020.
- J24. Eleftheratos, K., Kapsomenakis, J., Zerefos, C.S., Bais, A.F., **Fountoulakis, I.**, Dameris, M., Jöckel, P., Haslerud, A.S., Godin-Beekmann, S., Steinbrecht, W., Petropavlovskikh, I., Brogniez, C., Leblanc, T., Liley, J.B., Querel, R., Swart, D.P.J.: **Possible Effects of Greenhouse Gases to Ozone Profiles and DNA Active UV-B Irradiance at Ground Level.** Atmosphere, 11, 228, <https://doi.org/10.3390/atmos11030228>, 2020.
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## **2019**

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- J34. **Fountoulakis, I.**, Redondas, A., Lakkala, K., Berjon, A., Bais, A. F., Doppler, L., Feister, U., Heikkila, A., Karppinen, T., Karhu, J. M., Koskela, T., Garane, K., Fragkos, K., and Savastouk, V.: **Temperature dependence of the Brewer global UV measurements.** *Atmos. Meas. Tech.*, 10, 4491-4505, <https://doi.org/10.5194/amt-10-4491-2017>, 2017.
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- J39. **Fountoulakis, I.**, A. Redondas, A. F. Bais, J. J. Rodriguez-Franco, K. Fragkos, and A. Cede: **Dead time effect on the Brewer measurements: correction and estimated uncertainties.** *Atmos. Meas. Tech.*, 9(4), 1799-1816, <https://doi.org/10.5194/amt-9-1799-2016>, 2016.
- J40. **Fountoulakis, I.**, A. F. Bais, K. Fragkos, C. Meleti, K. Tourpali, and M. M. Zempila, **Short- and long-term variability of spectral solar UV irradiance at Thessaloniki, Greece: effects of changes in aerosols, total ozone and clouds.** *Atmos. Chem. Phys.*, 16(4), 2493-2505, <https://doi.org/10.5194/acp-16-2493-2016>, 2016.
- 2015**
- J41. **Fountoulakis, I.**, and A. F. Bais, **Projected changes in erythemal and vitamin D effective irradiance over northern-hemisphere high latitudes.** *Photochemical & Photobiological Sciences*, <https://doi.org/10.1039/c5pp00093a>, 2015.

**2014**

- J42. **Fountoulakis, I.**, A. F. Bais, K. Tourpali, K. Fragkos, and S. Misios, **Projected changes in solar UV radiation in the Arctic and sub-Arctic Oceans: Effects from changes in reflectivity, ice transmittance, clouds, and ozone.** J. Geophys. Res. Atmos., 119, 8073–8090, <https://doi.org/10.1002/2014JD021918>, 2014.

**Preprints (under review)**

- R1. Fragkos, K., **Fountoulakis, I.**, Charalampous, G., Papachristopoulou, K., Nisantzi, A., Hadjimitsis, D.G., Kazadzis, S.: **Twenty-Year Climatology of Solar UV and PAR in Cyprus: Integrating Satellite Earth Observations with Radiative Transfer Modeling.** Preprints 2024040431. <https://doi.org/10.20944/preprints202404.0431.v1>, 2024

**Summary of publications – journals**

A/A	Journal	Publisher	Impact Factor (2022)	Number of publications
1	Atmospheric Measurement Techniques	Copernicus Publications	3.8	7
2	Atmospheric Chemistry and Physics	Copernicus Publications	6.3	7
3	Remote Sensing	MDPI	5.0	5
4	Atmospheric Environment	Elsevier	5.0	3
5	Atmosphere	MDPI	2.9	3
6	Chemical Engineering Journal	Elsevier	15.1	2
7	Science of the Total Environment	Elsevier	9.8	2
8	Bulletin of Atmospheric Science and Technology	Springer	-	2
9	Physiological Reviews	American Physiological Society	33.6	1
10	Earth System Science Data	Copernicus Publications	11.4	1
11	Journal of Geophysical Research-Atmospheres	American Geophysical Union Publications	4.4	2
12	Photochemical & Photobiological Sciences	Royal Society of Chemistry	3.1	1
13	Theoretical and Applied Climatology	Springer	3.4	1
14	Metrologia	IOPscience	2.4	1
15	Comptes Rendus Geoscience	ScienceDirect	1.4	1
16	Energies	MDPI	3.2	2
17	Environments	MDPI	3.7	1
	<b>Total</b>		<b>Average=5.8</b>	<b>42</b>

## Annex II - List of conference papers

### 2023

- CP1. Fragkos, K., Nisantzi, A., **Fountoulakis, I.**, Michaelides, S., Charalampous, G., Papachristopoulou, K., Kontoes, C., Hadjimitsis, D., and Kazadzis, S.: Introducing the Solar Radiation and Energy Laboratory of the Eratosthenes Centre of Excellence: Overview of Activities, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, <https://doi.org/10.3390/envirosci2023026045>, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 2023.
- CP2. **Fountoulakis, I.**, Siomos, N., Raptis, I.-P., Eleftheratos, K., Kouklaki, D., Psiloglou, B. E., Amiridis, V., and Kazadzis, S.: Using Radiometric Measurements to Separate Dust and Smoke Radiative Effects during a Combined Smoke-Dust Event, <https://doi.org/10.3390/envirosci2023026026>, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 2023.
- CP3. Papachristopoulou, K., Tsekeri, A., Kouklaki, D., Raptis, P. I., Marinou, E., Amiridis, V., **Fountoulakis, I.**, and Kazadzis, S.: Surface Shortwave Radiation Measurements and Modeling under Intense Desert Dust Conditions, <https://doi.org/10.3390/envirosci2023026015>, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 2023.
- CP4. Kouklaki, D., Papachristopoulou, K., **Fountoulakis, I.**, Tsekeri, A., Raptis, P.-I., Kazadzis, S., and Eleftheratos, K.: Impact of Aerosols on Surface Solar Radiation and Solar Energy in the Mediterranean Basin, <https://doi.org/10.3390/envirosci2023026056>, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 2023.
- CP5. Moustaka, A., Korras-Carraca, M.-B., Papachristopoulou, K., **Fountoulakis, I.**, Kazadzis, S., Proestakis, E., Amiridis, V., Tourpali, K., and Gkikas, A.: Assessment of Cloud-Aerosol Lidar with Orthogonal Polarization and Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observations Retrievals towards Estimating the Aerosol Direct Impact on the Shortwave Radiation Budgets in North Africa, Europe, and the Middle East, <https://doi.org/10.3390/envirosci2023026139>, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 2023.
- CP6. Eleftheratos, K., Raptis, I.-P., Kouklaki, D., Kazadzis, S., **Fountoulakis, I.**, Psiloglou, B. E., Papachristopoulou, K., Founda, D., Benetatos, C., Kazantzidis, A., and Richter, A.: The ASPIRE Project: Atmospheric Parameters Affecting Solar Irradiance and Solar Energy in Athens, Greece: Overview and Results, <https://doi.org/10.3390/envirosci2023026046>, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, 2023.
- CP7. K. Fragkos, A. Nisantzi, **I. Fountoulakis**, S. Michaelides, G. Charalampous, K. Papachristopoulou, C. Kontoes, D. Hadjimitsis, and S. Kazadzis: The solar radiation and energy laboratory of Eratosthenes Centre of Excellence: establishment and research directions. Ninth International Conference on Remote Sensing and Geoinformation of Environment, Ayia Napa, Cyprus, 3-5 April, 2023
- CP8. G. Charalampous, K. Fragkos, A. Nisantzi, **I. Fountoulakis**, D. Hadjimitsis, S. Kazadzis, and K. Papachristopoulou: Satellite ozone and UV measurements over Cyprus. Ninth International Conference on Remote Sensing and Geoinformation of Environment, Ayia Napa, Cyprus, 3-5 April, 2023

### 2022

- CP9. Panagiotis Kosmopoulos, Marios Mechilis, **Ilias Fountoulakis**, Akriti Masoom and Stelios Kazadzis: Energy Autonomy Scenarios for the Island of Antikythera in Greece by Exploiting Solar Power Plant Technologies, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP10. **Ilias Fountoulakis**, Kyriakoula Papachristopoulou, Emmanouil Proestakis, Vassilis Amiridis, Charalampos Kontoes



- and Stelios Kazadzis: Effect of the vertical profile of aerosol extinction coefficient on the modelling of solar radiation in different spectral regions, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP11. Henri Diémoz, **Ilias Fountoulakis**, Gabriele Fasano, Annachiara Bellini, Anna Maria Siani, Monica Campanelli, Francesca Barnaba and Gian Paolo Gobbi: A multi-sensor research network for the advanced characterisation of solar radiation, aerosol properties and trace gases in the Alps, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP12. Gabriele Fasano, Henri Diémoz, Claudio Cassardo, **Ilias Fountoulakis**, Rei Kudo, Monica Campanelli and Victor Estellés: Vertical Profile of the Aerosol Direct Radiative Effect in an Alpine Valley, by the Synergy of Ground-based Measurements and Radiative Transfer Models, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP13. Kyriakoula Papachristopoulou, **Ilias Fountoulakis**, Antonis Gkikas, Panagiotis Kosmopoulos, Panagiotis Nastos, Maria Hatzaki and Stelios Kazadzis: Total Aerosols and Pure Dust Induced Perturbations on Downwelling Surface Solar Radiation over the Mediterranean Basin, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP14. Alexandra Tsekeri, Vassilis Amiridis, Maria Tschla, **Ilias Fountoulakis**, Angelos Nersesian, Emmanouil Proestakis, Antonis Gkikas, Kyriakoula Papachristopoulou, Vasileios Barlakas and Stelios Kazadzis: The Effect of Large Dust Size on Solar Radiation Fluxes, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP15. Kostas Eleftheratos, Dimitra Kouklaki, **Ilias Fountoulakis**, Ioannis-Panagiotis Raptis, Dimitra Founda, Stelios Kazadzis, Basil Psiloglou, Vassilis Amiridis, Eleni Marinou and Christos Zerefos: Impact of Extreme Wildfires of August 2021 on Air Quality and Solar Irradiance in Greece, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP16. Panagiotis Kosmopoulos, Stelios Kazadzis, Alois Schmalwieser, Panagiotis Raptis, Kyriakoula Papachristopoulou, **Ilias Fountoulakis**, Akriti Masoom, Alkiviadis Bais, Julia Bilbao, Mario Blumthaler, Axel Kreuter, Anna Maria Siani, Kostas Eleftheratos, Chrysanthi Topaloglou, Julian Gröbner, Bjørn Johnsen, Tove Svendby, Jose Manuel Vilaplana, Lionel Doppler, Ann Webb, Marina Khazova, Hugo De Backer, Anu Heikkilä, Kaisa Lakkala, Janusz Jaroslowski, Charikleia Meleti, Henri Diémoz, Gregor Hülsen, Barbara Klotz, John Rimmer and Charalampos Kontoes: The Ultraviolet Index Operating System (UVIOS): Application Example and Validation in the European Region, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP17. Angelos Karanikolas, Athanasios Natsis, **Ilias Fountoulakis**, Dimitris Karagkiozidis, Charikleia Meleti, Kleareti Tourpali and Alkiviadis Bais: The UV Index in the 21st Century over Thessaloniki, Greece, from Measurements and Simulations in Relation to the Montreal Protocol, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP18. Katerina Garane, **Ilias Fountoulakis**, Angelos Karanikolas, Alkiviadis F. Bais and Charikleia Meleti: Thirty years of solar ultraviolet spectral irradiance measurements in Thessaloniki: Variability and trends, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.
- CP19. Nikolaos Siomos, Dimitris Karagkiozidis, **Ilias Fountoulakis**, Fani Gkertsis, Dimitris Nikolis, Kalliopi A. Voudouri, Konstantinos Michailidis, Katerina Garane, Angelos Karanikolas, Athanasios Natsis, Alkiviadis F. Bais and Dimitris Balis: Exploring the synergy of lidars and spectrophotometers and its potential to separate aerosol species and improve trace gas profiling, International Radiation Symposium (IRS), Thessaloniki, Greece, 4 – 8 June 2022.

## **2019**

- CP20. N. Siomos, D. Balis, A. Bais, M. Koukouli, K. Garane, K. A. Voudouri, F. Gkertsis, A. Natsis, D. Karagkiozidis, and **I. Fountoulakis**: Towards an algorithm for near real time profiling of aerosol species, trace gases, and clouds based on the synergy of remote sensing instruments, <https://doi.org/10.1051/epjconf/202023708023>, 29th International Laser Radar Conference (ILRC29), Hefei, China, June 24-28, 2019

**2016**

- CP21. Zempila M. M., Koukouli M. E., Bais, A., Arola A., **Fountoulakis I.**, Kouremeti N., Kazadzis S., Balis D.: Long-term comparisons of OMI surface UV irradiances with a NILU-UV multi-filter actinometer in Thessaloniki, Greece , ESA Living Planet Symposium 2016, Prague, Czech Republic, 9-13 May 2016
- CP22. Zempila M. M., Taylor M., **Fountoulakis I.**, Koukouli M. E., Bais, A., Kouremeti, N., Kazadzis, S., Meleti, C., Balis, D.: CIE, Vitamin D and DNA damage: A synergetic study in Thessaloniki, Greece, ESA Living Planet Symposium 2016, Prague, Czech Republic, 9-13 May 2016



### Annex III - List of abstracts in conference proceedings

#### 2024

- CA1. Masoom, A., **Fountoulakis, I.**, Papachristopoulou, K., Marinou, E., Amiridis, V., Kazadzis, S.: Effect of wildfires on aerosol optical and microphysical properties, transport and ageing, 16th International Conference on Meteorology, Climatology and Atmospheric Physics, Athens, Greece, September 25-29, <https://doi.org/10.3390/environsciproc2023026045>, ACTRIS Science Conference 2024, Rennes, France, May 13 - 16, 2024.
- CA2. Papadimitriou, N., **Fountoulakis, I.**, Kapsomenakis, J., Gkikas, A., Kazadzis, S., Spyrou, C., Papachristopoulou, K., and Zerefos, C. S.: Variability in solar based power generation at the Eastern Mediterranean, EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024, EGU24-18880, <https://doi.org/10.5194/egusphere-egu24-18880>, 2024.
- CA3. Moustaka, A., Korras-Carraca, M.-B., Papachristopoulou, K., Stamatis, M., Proestakis, E., **Fountoulakis, I.**, Kazadzis, S., Amiridis, V., Tourpali, K., Solomos, S., Spyrou, C., Zerefos, C., and Gkikas, A.: Assessing lidar ratio impact on CALIPSO retrievals utilized for estimating aerosol shortwave direct radiative effects over the NAMEE domain, EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024, EGU24-16988, <https://doi.org/10.5194/egusphere-egu24-16988>, 2024.
- CA4. Kontoes, C., Papadopoulou, D., Bartsotas, N. S., Kazadzis, S., Koutalieris, G., Stathopoulos, C., Salta, F. N., Patlakas, P., Papachristopoulou, K., **Fountoulakis, I.**, Delkos, A., Symeonidis, S., and Sinnis, V.: The development of a Hybrid Renewable Energy Forecasting System under the Destination Earth initiative., EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024, EGU24-18891, <https://doi.org/10.5194/egusphere-egu24-18891>, 2024.

#### 2023

- CA5. Zerefos C., Kalabokas, P., **Fountoulakis, I.**, Gkikas, A., Kapsomenakis, I., Poupkou, A., Solomos, S., Spyrou, C., Douvis, K., Stavra, T., Luterbacher, J., Xoplaki, E., Eleftheratos, K., Gazerian, S.: Stratospheric ozone and solar UV radiation. UN Climate Change Conference (COP28) - United Arab Emirates, 30 Nov - 12 Dec 2023.
- CA6. Zerefos C., Kalabokas, P., **Fountoulakis, I.**, Gkikas, A., Kapsomenakis, I., Poupkou, A., Solomos, S., Spyrou, C., Douvis, K., Stavra, T., Luterbacher, J., Xoplaki, E., Eleftheratos, K., Gazerian, S.: Warming in the broader Mediterranean region and its urban areas: Present day and future projections. UN Climate Change Conference (COP28) - United Arab Emirates, 30 Nov - 12 Dec 2023.
- CA7. A. Moustaka, M.-B. Korras-Carraca, K. Papachristopoulou, **I. Fountoulakis**, S. Kazadzis, E. Proestakis, V. Amiridis, K. Tourpali and A. Gkikas: Tropospheric aerosols direct impact on the shortwave radiation budget in North Africa, Europe and Middle East. Meteorological Satellite Conference 2023, Malmo, Sweden, September 11 – 15, 2023.
- CA8. K. Papachristopoulou, **I. Fountoulakis**, D. Kouklaki, C. Kontoes, and S. Kazadzis: Assessing aerosol related uncertainties in the NextSENSE2 system. EMS Annual Meeting 2023, Bratislava, Slovakia & Online, 3–8 Sep 2023.
- CA9. K. Fragkos, R-E. Mamouri, **I. Fountoulakis**, A. Nisantzi, D. Ene, G. Charalampous, K. Papachristopoulou, A. Ansmann, J. Buhl, P. Seifert, D. Hadjimitsis, and S. Kazadzis: The capacity of Eratosthenes Centre of Excellence to estimate cloud radiative effects: the CyCARE campaign. EMS Annual Meeting 2023, Bratislava, Slovakia & Online, 3–8 Sep 2023.
- CA10. S. Kazadzis, N. Kouremeti, A. Masoom, J. Groebner and the **Harmonia Core group Team**: Aerosol sun photometry state of the art and progress and the COST action Harmonia. EMS Annual Meeting 2023, Bratislava, Slovakia & Online, 3–8 Sep 2023.
- CA11. K. Papachristopoulou, I-P. Raptis, A. Gkikas, **I. Fountoulakis**, A. Masoom, and S. Kazadzis: Are Aerosol Optical Depth trends related with population changes? A worldwide assessment over megacities. IUGG, General Assembly, Berlin, Germany, 11-20 July 2023.

- CA12. **I. Fountoulakis**, K. Fragkos, K. Papachristopoulou, A. Nisantzi, A. Gkikas, D. Hadjimitsis, and S. Kazadzis: [Evolution of biologically active ultraviolet doses in Cyprus](#). EGU, General Assembly, Vienna, 24-28 April 2023.
- CA13. K. Fragkos, **I. Fountoulakis**, A. Nisantzi, K. Papachristopoulou, D. Hadjimitsis, and S. Kazadzis: [Modelled-based Photosynthetically Active Radiation climatology for Cyprus: Validation with measurements and trends](#). EGU, General Assembly, Vienna, 24-28 April 2023.
- CA14. K. Papachristopoulou, **I. Fountoulakis**, A. F Bais, B. E Psiloglou, C. Kontoes, M. Hatzaki, and S. Kazadzis: [Improvements and validation of nextSENSE solar energy nowcasting and short-term forecasting system](#). EGU, General Assembly, Vienna, 24-28 April 2023.
- CA15. D., Kouklaki, I.-P. Raptis, S. Kazadzis, **I. Fountoulakis**, K. Papachristopoulou, and K. Eleftheratos: [The Aspire campaign: Assessing the effects of aerosols on solar radiation and energy in SE Europe](#). EGU, General Assembly, Vienna, 24-28 April 2023.

## 2022

- CA16. A.M. Siani, F. Frasca, H. Diémoz, **I. Fountoulakis**, M. Pedone, G.R. Casale, and A. Colosimo: [A Comparative Study Among Different Empirical Approaches for the Short-Term Prediction of the UV Index](#). European Conference on Solar UV Monitoring and Personal UV Exposure, Vienna, Austria, 14. - 16. September 2022.
- CA17. Gabriele Fasano, Henri Diémoz, Claudio Cassardo, **Ilias Fountoulakis**, Rei Kudo, Monica Campanelli, and Victor Estellés: [Vertical profile of the Aerosol Direct Radiative Effect in an Alpine valley, by the synergy of ground-based measurements and Radiative Transfer Models](#). European Conference on Solar UV Monitoring and Personal UV Exposure, Vienna, Austria, 14. - 16. September 2022.
- CA18. Henri Diémoz, **I. Fountoulakis**, A. M. Siani, O. Pisani, G. Fasano, and G. Hülsen: [Monitoring of solar spectral and broadband ultraviolet irradiance in Aosta, Italy: recent advances](#). European Conference on Solar UV Monitoring and Personal UV Exposure, Vienna, Austria, 14. - 16. September 2022.
- CA19. **Fountoulakis I.**, Diémoz H., Siani A. M., di Sarra A., Meloni D., and Sferlazzo D.M.: [Variability and trends of the surface solar spectral ultraviolet irradiance in Italy](#). European Conference on Solar UV Monitoring and Personal UV Exposure, Vienna, Austria, 14. - 16. September 2022.
- CA20. Raptis Ioannis-Panagiotis, **Fountoulakis Ilias**, Eleftheratos Kostas, Kosmopoulos Panagiotis, Kouklaki Dimitra, and Kazadzis Stelios: [UV erythemal and vitamin D retrieval from surface-based and satellite measurements and UVIOS model](#). European Conference on Solar UV Monitoring and Personal UV Exposure, Vienna, Austria, 14. - 16. September 2022.
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- CA29. N. Siomos, **I. Fountoulakis**, F. Gkertsis, K. A. Voudouri, K. Michailidis, K. Garane, D. Karagkiozidis, A. Karanikolas, A. Natsis, A. F. Bais and D. Balis: Presenting ASSA: an Aerosol Species Separation Algorithm based on the synergy of lidars and spectrophotometers, European Lidar Conference 2021, Granada, Spain, 16 – 18 November 2021
- CA30. **I. Fountoulakis**, H. Diémoz, A.-M. Siani, A. di Sarra, and D. Meloni: Variability of the spectral ultraviolet irradiance and total ozone in Italy: the role of atmospheric dynamics, Quadrennial Ozone Symposium 2021, Seoul, South Korea, 3-9 October 2021
- CA31. G. Fasano, H. Diémoz, A.-M. Siani, L. Scacchi, M. Depaoli, M. Zublena, **I. Fountoulakis**: The SOUVENIR project (Solar UV Extensive Network for Information and Reporting), Quadrennial Ozone Symposium 2021, Seoul, South Korea, 3-9 October 2021
- CA32. K. Eleftheratos, J. Kapsomenakis, C. Zerefos, **I. Fountoulakis**, P. Joeckel, M. Dameris: Total ozone and DNA UV changes in the future due to greenhouse gases, Quadrennial Ozone Symposium 2021, Seoul, South Korea, 3-9 October 2021
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- CA47. T. Drosoglou, N. Siomos, **I. Fountoulakis**, A. Natsis, and A. Bais: Vertical distribution of ozone in the lower troposphere from MAX-DOAS measurements over Thessaloniki, Greece. First scientific conference PANACEA, Heraklion, Greece, 23 – 24 September 2019
- CA48. N. Siomos, D. Balis, A. Bais, M.E. Koukouli, K. Garane, K. A. Voudouri, F. Gkertsis, A. Natsis, D. Karagkiozidis, M.

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- CA50. A. Natsis, **I. Fountoulakis**, N. Siomos, D. Karagkiozidis, T. Drosoglou, C. Meleti, and A. Bais: Retrieval of Aerosol Optical Depth in the UV from a single- and a double-monochromator Brewer spectrophotometer in Thessaloniki, Greece. European Aerosol Conference 2019, Gothenburg, Sweden, 25-30 Aug 2019
- CA51. N. Siomos, **I. Fountoulakis**, A. Natsis, T. Drosoglou, and A. Bais: Temporal Variations of the Predominant Aerosol Types during a 19-year Period in Thessaloniki, Greece. European Aerosol Conference 2019, Gothenburg, Sweden, 25-30 Aug 2019
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- CA72. M. M. Zempila, M. Taylor, M. E. Koukouli, **I. Fountoulakis**, A. Bais, A. Arola, J. van Geffen, M. van Weele, R. van der A, C. Meleti, D. Balis, N. Kouremeti, and S. Kazadzis: Evaluation of Satellite Photobiological Effective Dose Products with a ground-based NILU-UV Radiometer: in preparation for TROPOMI/S5P, Atmospheric Composition Validation and Evolution - ACVE 2016, ESA-ESRIN, Italy, 18 - 20 October 2016

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- CA79. B. Hernández-Cruz, A. Redondas, M. Rodríguez Valido, J. López-Solano, S. F. León-Luis, V. Carreño, A. Berjón, D. Santana-Díaz, J. Rimmer, J. Gröbner, **I. Fountoulakis**, T. Karppinen, and H. Diémoz: A European Brewer Network: Web Tools for Ozone Data Process and Configuration Interface, Quadrennial Ozone Symposium 2016, Edinburgh, United Kingdom, 4–9 September 2016
- CA80. M. E. Koukouli, C. Lerot, K. Fragkos, **I. Fountoulakis**, M. M. Zempila, M. Taylor, D. Balis, A. Bais, and M. van Roozendael: Validation of the long term ESA Ozone-CCI GODFIT\_v3 Total Ozone Record using three different ground-based instruments at a Northern mid-latitude station, Quadrennial Ozone Symposium 2016, Edinburgh, United Kingdom, 4–9 September 2016
- CA81. K. Fragkos, I. Petropavlovskikh, A.F. Bais, **I. Fountoulakis**, and M. Stanek: Umkehr ozone profiles in Thessaloniki and comparison with MLS overpasses, Quadrennial Ozone Symposium 2016, Edinburgh, United Kingdom, 4–9 September 2016
- CA82. **I. Fountoulakis**, A. Redondas, A.F. Bais, J.J. Rodriguez-Franco, K. Fragkos, and A. Cede: Dead time effect on the Brewer measurements of spectral UV irradiance and TOC: correction and estimated uncertainties, Quadrennial Ozone Symposium 2016, Edinburgh, United Kingdom, 4–9 September 2016
- CA83. **I. Fountoulakis**, A.F. Bais, K. Lakkala, Z. Toth, V. De Bock, H. Diémoz, L. Doppler, U. Feister, K. Fragkos, J. Gröbner, A. Heikkilä, T. Karppinen, T. Koskela, J.M. San Atanasio, A.M. Siani, and A.R.D. Smedley: Temperature dependence of the Brewer spectral UV and total ozone column measurements, Quadrennial Ozone Symposium 2016, Edinburgh, United Kingdom, 4–9 September 2016
- CA84. M.M. Zempila, M. Taylor, M.E. Koukouli, A. Bais, C. Lerot, K. Fragkos, **I. Fountoulakis**, T. Drosoglou, F. Gkertsis, S. Kazadzis, D. Balis, and M. van Roozendael: High frequency retrieval of total ozone from a ground-based NILU-UV radiometer using a neural network model: validation of the model and evaluation of satellite observations, Quadrennial Ozone Symposium 2016, Edinburgh, United Kingdom, 4–9 September 2016



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- CA87. K. Fragkos, A.F. Bais, **I. Fountoulakis**, D.S. Balis, K. Tourpali, and C. Meleti: Effects of extreme total column ozone events on UV solar radiation in an urban environment, 26th IUGG General Assembly 2015, Prague, Czech Republic, 22 June – 2 July, 2015
- CA88. **I. Fountoulakis**, A.F. Bais, K. Tourpali, and S. Misios: Projected changes in solar UV radiation over the high latitudes of the southern and the northern hemisphere, 26th IUGG General Assembly 2015, Prague, Czech Republic, 22 June – 2 July, 2015

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- CA89. Bais A., Kazantzidis A., Giannaros T., Kazadzis S., Nikitidou E., Zempila M.M., Tzoumanikas P., Salamalikis V., Melas D., Zerefos C., Fragkos K., **Fountoulakis I.**, Drosoglou T. and Kotti M.C.: The Greek Solar Energy Network, 12th International Conference of Meteorology, Climatology and Atmospheric Physics, COMECAP 2014, Heraklion, 28 May – 31 May 2014
- CA90. Zempila M.M., Bais A., Kouremeti N., Meleti C. and **Fountoulakis I.**: Measurements of UV Solar Radiation and Estimated Products in Thessaloniki from a NILU-UV multichannel radiometer, 12th International Conference of Meteorology, Climatology and Atmospheric Physics, COMECAP 2014, Heraklion, 28 May – 31 May 2014
- CA91. Fragkos K., Bais A.F., Meleti C., **Fountoulakis I.**, Tourpali K., Balis D. and Zerefos C.S.: Variability of a thirty-year record of total ozone derived from a Brewer spectrophotometer at Thessaloniki and the SBUV version 8.6, 12th International Conference of Meteorology, Climatology and Atmospheric Physics, COMECAP 2014, Heraklion, 28 May – 31 May 2014
- CA92. **Fountoulakis I.**, Bais A.F., Fragkos K., Meleti C., Zempila M.M., Kouremeti N., and Tourpali K.: Long-term trends and climatology of spectral surface UV irradiance at Thessaloniki, Greece, 12th International Conference of Meteorology, Climatology and Atmospheric Physics, COMECAP 2014, Heraklion, 28 May – 31 May 2014

### **2013**

- CA93. Bais A.F., Giannaros T.M., Kazantzidis A., Melas D., Fragkos K., **Fountoulakis I.** and Nikitidou E., The helenic network of solar energy: evaluation of short term predictions in comparison to measurements, 13th International Conference on Environmental Science and Technology (CEST), 5-7 September, 2013, Athens, Greece
- CA94. **I. Fountoulakis**, A. F. Bais, K. Fragkos, S. Misios, and K. Tourpali, Projections of UV irradiation over an Arctic Ocean region using ozone and surface reflectivity from five Earth System Models, DACA 2013, Davos, 8 – 12 July 2013

### **2012**

- CA95. A.F. Bais, A. Kazantzidis, P. Tzoumanikas, E. Nikitidou, T. Giannaros, D. Melas, C. Meleti, H. Kambezidis, V. Salamalikis, K. Fragkos, and **I. Fountoulakis**, Estimation of solar irradiance from satellite data and numerical weather predictions over Greece, International Radiation Symposium 2012, Dahlem Cube, Berlin, Germany, 6 – 10 August

2012

## Annex IV - List of Journals for which IF has been a reviewer

- Nature Communications (Springer, IF: 17.69)
- Remote Sensing of Environment (Elsevier, IF: 13.50)
- Earth System Science Data (Copernicus, IF: 11.40)
- Science of the Total Environment (Elsevier, IF: 9.80)
- Engineering Applications of Artificial Intelligence (Elsevier, IF:8.00)
- Atmospheric Chemistry and Physics (Copernicus, IF: 6.30)
- Environmental Science and Pollution Research (Springer, IF: 5.80)
- International Journal of Digital Earth (Taylor & Francis, IF: 5.10)
- Atmospheric Environment (Elsevier, IF: 5.00)
- Remote Sensing (MDPI, IF: 5.00)
- Atmospheric Measurement Techniques (Copernicus, IF: 3.80)
- Sustainability (MDPI, IF: 3.90)
- Sensors (MDPI, IF: 3.90)
- Journal of King Saud University – Science (Elsevier, IF: 3.80)
- The European Physical Journal Plus (Springer, IF: 3.40)
- Theoretical and Applied Climatology (Springer, IF: 3.40)
- Photochemistry and Photobiology (Wiley, IF:3.30)
- Energies (MDPI, IF: 3.20)
- International Journal of Sustainable Energy (Taylor & Francis, IF: 3.10)
- Photochemical & Photobiological Sciences (Springer, IF 3.10)
- Atmosphere (MDPI, IF: 2.90)
- Applied Sciences (MDPI, IF: 2.70)
- Metrologia (IOP science, IF: 2.40)
- Measurement Science and Technology (IOP science, IF: 2.40)
- Acta Geophysica (Springer, IF: 2.30)
- Rendiconti Lincei - scienze fisiche e naturali (Elsevier, IF: 2.00)
- Annales Geophysicae (Copernicus, IF: 1.90)
- African Journal of Environmental Science and Technology (AJ, IF: -)
- Indian Journal of Science & Technology (ISEE, IF: -)

## Annex V - List of research projects

Working period	Role	Project	Source	Project period
04/2024 - present	Researcher, work package leader	Development and installation of an integrated system for the monitoring of the impacts of climatic changes on the monuments of Delos.	Partnership of charitable institutions "Protouvoulia21"	2024 - 2025
09/2023 - present	Researcher	National Network for Climate Change and its Impact (CLIMPACT II)	General Secretariat for Research and Innovation	2023 - 2025
07/2023 - present	Researcher	Sustainable Approaches to Land and water Management in Mediterranean Drylands (SALAM-MED)	European Union PRIMA-MED	2022 - 2025
11/2022 - present	Researcher, work group co-leader	CA21119 - International network for harmonization of atmospheric aerosol retrievals from ground based photometers (Harmonia)	European Union COST Action	2022 - 2026
09/2022 – 12/2022	Researcher	Measuring atmospheric parameters affecting spectral solar irradiance and solar energy (ASPIRE)	Hellenic Foundation for Research and Innovation	2021 - 2023
09/2023 – 10/2023				
11/2021 – 10/2022	Researcher	EuroGEOSS Showcases: Applications powered by Europe (E-SHAPE)	HORIZON 2020	2019 - 2022
11/2020 – 10/2021	Researcher	EXCELSIOR CoE – ERATOSTHENES: Excellence Research Centre for Earth Surveillance and Space-Based Monitoring of the Environment	H2020-EU.4.a. - Teaming of excellent research institutions and low performing RDI regions	2019 - 2026
11/2022 – present				
01/2018 – 11/2020	Researcher	Espletamento di attività tecniche inerenti la misura della radiazione solare ultravioletta per l' avvio di un laboratorio ottico, di competenza della Sezione aria ed atmosfera	Agenzia regionale Per la Protezione dell'Ambiente della Valle d' Aosta (ARPA)	2018 - 2020
06/2018 – 02/2020	Researcher	Optimization and application of methods for ground-based remote sensing of aerosols and ozone in the lower troposphere for investigating their variability	Human Resources Development, Education and Lifelong Learning 2014-2020 (European Social Fund - ESF): MIS 5004486	2018 - 2020
09/2014 – 12/2017	Researcher	eEnviPer - "A single multi-purpose SOA platform that delivers environmental permissions services through the cloud of e-Government services and applications".	CIP - Competitiveness and innovation framework programme (CIP), (2007-2013)	2012 - 2017
09/2012 – 12/2013				
09/2017 – 12/2017	Researcher	Brewer Total Ozone Columns and Aerosol Optical Depths for Omi Validation	Fundación Canaria General de Universidad de La Laguna G-38083408 (ESA)	2017 - 2018
09/2016 – 12/2016	Researcher	Traceability for atmospheric total column ozone (ATMOZ)	European metrology Research Program, jointly funded by the EMRP participating countries within EURAMET and the European Union.	2014 - 2017
02/2016 – 08/2016	Researcher	QA4ECV - Quality Assurance for Essential Climate Variables	European Union FP7 Space 2013-1 Project	2014 – 2017
01/2014 – 12/2017	Researcher	COST 1207 – EuBrewNet “A European Brewer Network”	European Union COST Action	2014 - 2017
01/2014 – 12/2014	Researcher	SOLID (First European SOLar Irradiance Data Exploitation)	European Union FP7 Space 2012-1 Project	2012 -2015
06/2011 – 07/2012	Post-graduate Research Assistant	EDHE – “Hellenic Network of Solar Energy”.	European Commission – Communications Networks, Content and Technology.	2011 - 2013
03/2011 – 04/2011	Post-graduate Research Assistant	Stratospheric-Climate Links with Emphasis on the Upper Troposphere and Lower Stratosphere (SCOUT-O3).	European Union FP6 – SUSTDEV.	2004 - 2009
11/2010	Post-graduate Research Assistant	Absolute calibration of UVA and UVB actinometers.	Lithuanian Hydrometeorological Service.	2010
04/2010 – 10/2010	Post-graduate Research	Comparison between ground based and satellite measurements of the total column of NO <sub>2</sub> ,	ESA	2007 - 2009

	Assistant	NO2VAL.		
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