



Hellenic
Meteorological
Society



University
of West Attica



Mariolopoulos - Kanaginis
Foundation for the
Environmental Sciences

16th International Conference on
**Meteorology, Climatology
and Atmospheric Physics**

COMECAp 2023

Climate change
impacts on environment
and human health

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25-29

September 2023



Under the Auspices



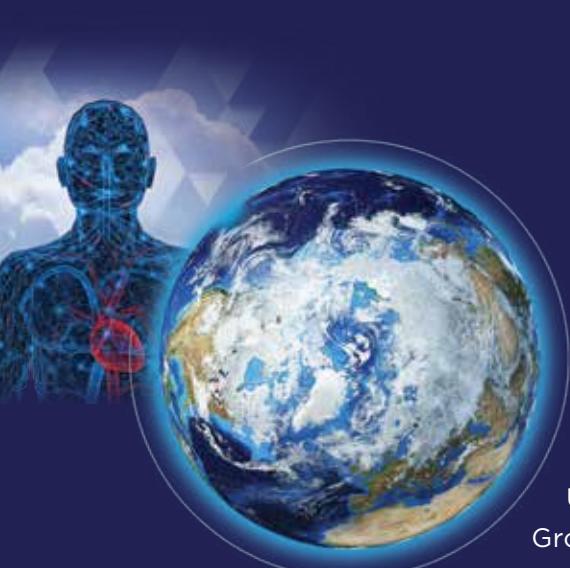
Conference Center of the University of West Attica,
Athens, Greece

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Welcome Address

It is our great honor to welcome you at the opening of the 16th International Conference on Meteorology, Climatology and Atmospheric Physics - COMECAP 2023. The conference will be held in the University of West Attica (Ancient Olive Grove Campus), Athens, Greece from 25 up to 29 September 2023.

The Hellenic Meteorological Society (HMS) is co-organizing COMECAP 2023 with the University of West Attica (UNIWA) and the Mariolopoulos-Kanaginis Foundation for the Environmental Sciences.

Established in 1992, the International Conference on Meteorology, Climatology and Atmospheric Physics-COMECP is a leading conference where top experts and scientists present state-of-the-art research on current and emerging issues concerning Meteorology, Climatology and Climate Change, Atmospheric Physics, Environment & Energy, Air Quality as well as the adverse health effects due to burdened environment, air pollution, extreme weather, etc.

COMECAP is a peer-reviewed Hybrid International Conference.
All papers that will be presented at the conference, will be published by **MDPI - Environmental Sciences Proceedings Journal.**

On behalf of the Organizing Committee,

Konstantinos P. Moustris
COMECP 2023 Chairman



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(*Hellenic National Meteorological Services & HMS*)

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Papadopoulos A., Hellenic Centre for Marine Research, Greece
Papamichail D., School of Agriculture, Aristotle University of Thessaloniki, Greece





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Sarafidis I., National Observatory of Athens, Greece

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Tsiros J., Agricultural University of Athens, Greece

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Xoplaki E., Justus-Liebig-University Giessen

Zafirakis D., University of West Attica, Greece

Zanis P., University of Thessaloniki, Greece

Zerefos C. S., Academician, Academy of Athens, Greece

Zoumakis E., Technological Education Institute of Thessaloniki, Greece



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SCIENTIFIC PROGRAMME

Oral Sessions | Poster Sessions | Authors' Index



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ATHENS, LOCAL TIME

09:00-10:00 **Registration-Welcome**

- 10:00-10:10 **Prof. Konstantinos Moustris**
Chairman of the Organizing Committee - 16th COMECAP 2023
- 10:10-10:20 **Prof. Panagiotis Nastos**
Chairman of the Hellenic Meteorological Society (HMS)
- 10:20-10:30 **Prof. Panagiotis Kaldis**
Rector University of West Attica
- 10:30-10:40 **Aristotle Aivaliotis**
*Secretary General of Energy and Mineral Raw Materials
Ministry of Environment & Energy*
- 10:40-10:50 **Brigadier General (MT) Spyridon Barsakis**
Commander of the Hellenic National Meteorological Service (HNMS)
- 10:50-11:00 **Mayor Mr. Konstantinos Bakoyiannis**
Municipality of Athens
- 11:00-11:10 **Mayor Mr. John Gkikas**
Municipality of Egaleo
- 11:10-11:40 **Dr. Christos S. Zerefos**
*Secretary General, Academy of Athens
"2023: A Summer to Remember"*
- 11:40-12:10 **Prof. Rob Allan**
*International ACRE Project Manager
"Atmospheric Circulation Reconstructions over the Earth (ACRE) &
Historical Mediterranean Data Rescue"*
- 12:10-12:40 **Prof. Andreas Matzarakis**
*Research Centre Human Biometeorology
German Meteorological Service
"Thermal Bioclimate as Part of Climate Change Adaptation
Possibilities"*
- 12:40-13:10 **Prof. Konstantinos Priftis**
*National and Kapodistrian University of Athens, Medical School
"The impact of air pollution on childhood asthma morbidity"*

Monday 25/09/2023

Central Amphitheater

END of Day 1





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ATHENS, LOCAL TIME

09:00-09:30 **Registration-Welcome**

ORAL SESSION Meteorology (*In memoriam of Prof. George Kallos*)

Chairpersons: **Flocas H.A. & Pytharoulis J.**



09:30-09:45 Diagnostics of Mediterranean explosive cyclogenesis using the pressure tendency equation

John Kouroutzoglou, Christos Lamaris, Helena A. Flocas, Maria Hatzaki, Georgios Kafkoulas and Platon Patlakas

09:45-10:00 The non-Boussinesq Taylor-Caulfield Instability
Theodoros Tolidis and Nikolaos A. Bakas

10:00-10:15 Investigation of the influence of stratospheric shear on baroclinic instability
Christos Gkoulekas and Nikolaos A. Bakas

10:15-10:30 Statistical Analysis for Long Term Weather Forecast
Kampolis D.

10:30-10:45 An investigation of the dynamics leading to the emergence of jets and Rossby waves from a background of homogeneous turbulence in a baroclinic atmosphere
Evangelos I. Stasinou and Nikolaos A. Bakas

10:45-11:00 Characteristics of long-lived coherent vortices in a simple model of quasi-geostrophic turbulence
Nikolaos A. Bakas

11:00-11:15 Synoptic aspects of the supercell of Halkidiki, 10 July 2019
Brikas D., Siomos P., Nikolaou I., Nikolopoulos A., Papadopoulou-Papaioannou D. and Diomis T.

11:15-11:30 The organization of convection into lines in northern Greece:
The case of 18 May 2007
Dokopoulou A., Laskos K., Voudouri M., Vlachou M., Brikas D.

11:30-12:00 **Coffee Break**

Tuesday 26/09/2023

Room A



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ATHENS, LOCAL TIME

ORAL SESSION Atmospheric Physics

Chairpersons: **Hatzianastasiou N. & Amiridis V.**



- 12:00-12:15 The development of a dust mineralogy map from satellite retrievals and implementation in WRF-Chem
Solomos Stavros, Spyrou Christos, Bartsotas S. Nikolaos, Sykioti Olga, Amiridis Vassilis, Gkikas Antonios, Marinou Eleni, Katsafados Petros, Tsarpalis Konstantinos, Pejanovic Goran, Cvetkovic Bojan, Nickovic, Slobodan, Kalivitis Nikolaos, Kanakidou Maria, Mihalopoulos Nikolaos, Zerefos Christos
- 12:15-12:30 Fatigue of mechanical structures from cyclic wind actions
Anis Sulejmani and Odhisea Koça
- 12:30-12:45 StratoFIRE: modeling wildfire smoke in the stratosphere
Stergios Misios, Andreas Chrysanthou, Kostas Tsigaridis and Vassilis Amiridis
- 12:45-13:00 Evaluation of simulated atmospheric PM chemical composition in Athens - Organic aerosols formation sensitivity tests
Anastasia Poupkou, Serafim Kontos, Natalia Liora, Dimitrios Tsiaousidis, Ioannis Kapsomenakis, Stavros Solomos, Eleni Liakakou, Eleni Athanasopoulou, Georgios Grivas, Evangelia Diapouli, Vasiliki Vasiliatou, Stefanos Papagiannis, Athena Progiou, Pavlos Kalabokas, Dimitrios Melas, Evangelos Gerasopoulos, Konstantinos Eleftheriadis and Christos Zerefos
- 13:00-13:15 Estimating the Effective Radiative Forcing of anthropogenic aerosols with the use of CMIP6 Earth System Models
Alkiviadis Kalisoras, Aristeidis K. Georgoulas, Dimitris Akrtidis, Robert J. Allen, Vaishali Naik and Prodromos Zanis
- 13:15-13:30 On the contribution of aerosols and clouds to Global Dimming and Brightening using a radiative transfer model, ISCCP-H cloud and MERRA-2 aerosol optical properties
Michael Stamatis, Nikolaos Hatzianastassiou, Marios Bruno Korras Carraca, Christos Matsoukas, Martin Wild and Ilias Vardavas
- 13:30-13:45 Novel measurements of desert dust electrical properties: A multi-instrument approach during the ASKOS 2022 campaign
Sotirios Mallios, Vassiliki Daskalopoulou, Vasileios Spanakis-Misirlis, George Hloupis and Vassilis Amiridis

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Room A





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ATHENS, LOCAL TIME

09:00-09:30 **Registration-Welcome**

ORAL SESSION Environment & Energy

Chairpersons: **Kaldellis J.K. & Spyropoulos G.**



- 09:30-09:45 Green transition in the cities: EU and Greek strategies supporting energy sufficient households
Christoforaki K.
- 09:45-10:00 Heating and cooling energy consumption estimation in a typical house in the greater Thessaloniki area, applying cooling and heating degree days method
Vassilis Kotakis and Konstantinos Moustris
- 10:00-10:15 Wind energy calculations of a 15 MW floating wind turbine system in the Mediterranean Sea
Thomas P. Mazarakos
- 10:15-10:30 Analysis of current and future Heating and Cooling Degree Days over Greece using observations and regional climate model simulations
Athanasiос Karagiannidis, Konstantinos Lagouvardos, Vassiliki Kotroni and Elissavet Galanaki
- 10:30-10:45 Introducing the Solar Radiation and Energy Laboratory of the Eratosthenes' Centre of Excellence: Overview of Activities
Konstantinos Frangkos, Argyro Nisantzi, Ilias Fountoulakis, Silas Michaelides, Georgia Charalampous, Kyriakoula Papachristopoulou, Charis Kontoes, Diofantos Hadjimitsis and Stelios Kazadzis
- 10:45-11:00 Self-Consumption and Market Integration Balance Analysis for RES-Battery Electricity Prosumers in Greece
Konstantinos Christopoulos, Iliana Stefanidi, Kosmas Kavadias, Dimitrios Zafirakis
- 11:00-11:15 The ASPIRE project: Atmospheric parameters affecting solar irradiance and solar energy in Athens, Greece. Overview and results
Kostas Eleftheratos, Ioannis-Panagiotis Raptis, Dimitra Kouklaki, Stelios Kazadzis, Ilias Fountoulakis, Basil E. Psiloglou, Kyriaki Papachristopoulou, Dimitra Founda, Charis Benetatos, Andreas Kazantzidis and Andreas Richter
- 11:15-11:30 Impact of lithium battery recycling and second-life application on minimizing environmental waste
Dimitrios Rimpas, Stavros D. Kamaris, Dimitrios D. Piromalis, Georgios Vokas and Vasilios A. Orfanos

11:30-12:00

Coffee Break

Tuesday 26/09/2023

Room B



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ATHENS, LOCAL TIME

ORAL SESSION Environment & Energy

Chairpersons: **Piromalis G. & Zafirakis D.**



- 12:00-12:15 Optimization of a CHP Unit Operation for a University Campus Carbon Dioxide Emissions Minimization
Kleanthis Kaldellis, Emmanouil Kostopoulos and John K Kaldellis
- 12:15-12:30 The Clean-Green Decarbonization of Remote Islands. The GReco-islands concept
John K. Kaldellis, Panagiotis Ktenidis
- 12:30-12:45 An Integrated Optimum PV-based Solution for Urban House-holds Energy Autonomy, including Clean Electro-mobility
Kleanthis Kaldellis, John Kalognomos and Aggelos Kaldellis
- 12:45-13:00 Evaluation of the performance gains in short-term water consumption forecasting by feature engineering via a fuzzy clustering algorithm, in the context of data scarcity
George Tzanes, Christiana Papapostolou, Miltiadis Gymnopoulos, John Kaldellis and Anastasios Stamou
- 13:00-13:15 Investigating the Impact of Cycling Ageing on the Long-term Performance of RES-driven, Second-life EV Battery Storage Configurations in Residential-scale Applications
Aggelos Kaldellis, Konstantinos Christopoulos, Panagiotis Triantafyllopoulos, Georgios Spyropoulos, Kosmas Kavadias and Dimitrios Zafirakis
- 13:15-13:30 Stochastic Assessment of Day-Ahead, Wind Energy Curtailment-driven Demand Response Requirements in Non-Interconnected Island Systems
Dimitrios Zafirakis, Konstantinos Christopoulos, Konstantinos Mousiris and John K. Kaldellis
- 13:30-13:45 Free2move: Future Mobility in Islands
Manos Emmanouil - General Manager, Free2Move
- 13:45-14:00 Electric & Micro Mobility Solutions in the Greek Islands
Dimitris Skianis - Journalist

Tuesday 26/09/2023

Room B

14:00-15:00

WORKSHOP



EU Islands Decarbonization - Greek Islands

ATHENS, LOCAL TIME

Central Amphitheater

20:00-21:30 **Bouzouki & Jazz Concert by Paouris' Trio**





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ORAL SESSION Meteorology

Chairpersons: **Kotroni V. & Karacostas Th.**



- 09:30-09:45 A Hybrid Extended Kalman Filter based on a parametrized FeedForward Neural Network for the improvement of the results of numerical wave prediction models
Athanasis Donas, George Galanis and Ioannis Th. Famelis
- 09:45-10:00 Meteorological applications from a perspective of a private weather provider
Christos Gatidis and Filotas Paschos
- 10:00-10:15 Waterspout Outbreak Environments and Forecasting in Greece
Michalis V. Sioutas, Wade Szilagyi, Maria M. Chrisrtodoulou and Eleni A. Chatzi
- 10:15-10:30 The unusual event of multiple supercell thunderstorms on August 11, 2021 at the end of an extreme heat wave in Greece
Christodoulou M., Sioutas M., Tegoulia I.
- 10:30-10:45 Modeling the impact of the Green-Roofs as a Nature-based solution to mitigate the Urban Heat Island effects over Attica, Greece
C. Kalogeris, C. Spyrou, M. Koukoula, P. M. Saviolakis, A. Pappa, M. Loupis, C. Masouras and P. Katsafados
- 10:45-11:00 An early warning system to predict rainfall event in Attica, Greece: the case study of 30/9/2018
Aikaterini Pappa, Christos Spyrou, John Kalogiros, Maria Tombrou, George Varlas and Petros Katsafados
- 11:00-11:15 Innovative Polygon Trend Analysis (IPTA): a case study for precipitation in Thessaloniki during the last 50 years (1971-2020)
Petroula Karacosta, Nikoletta Pakalidou, Maria Douka and Theodore Karacostas

11:30-12:00 **Coffee Break**

Wednesday 27/09/2023

Room A



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ORAL SESSION Atmospheric Physics

Chairpersons: **Eleftheratos K. & Bakas N.**



- 12:00-12:15 Assessing the Impact of Aeolus Wind Profiles in WRF-Chem Model Dust Simulations in September 2021
Eleni Drakaki, Vassilis Amiridis, Antonis Gkikas, Eleni Marinou, Emmanouil Proestakis, Georgios Papangelis, Angela Benedetti, Michael Rennie, Christian Retscher, Demetri Bouris and Petros Katsafados
- 12:15-12:30 Inversion techniques on Etna's volcanic emissions and the impact of Aeolus on quantitative dispersion modeling
Anna Kampouri, Vasilis Amiridis, Thanasis Georgiou, Stavros Solomos, Ioannis Binietoglou, Anna Gialitaki, Eleni Marinou, Antonis Gkikas, Emmanouil Proestakis, Michael Rennie, Angela Benedetti, Simona Scollo, Lucia Mona, Nikolaos Papagiannopoulos and Prodromos Zanis
- 12:30-12:45 Assessment of CALIOP-CALIPSO retrievals towards estimating the aerosol direct impact on the shortwave radiation budget in North Africa, Europe and Middle East
Anna Moustaka, Marios-Bruno Korras-Carraca, Kyriakoula Papachristopoulou, Ilias Fountoulakis, Stelios Kazadzis, Emmanouil Proestakis, Vassilis Amiridis, Kleareti Tourpali and Antonis Gkikas
- 12:45-13:00 eVe lidar measurements during the ASKOS/JATAC campaign
Peristera Paschou, Nikolaos Siomos, Eleni Marinou, Samira Moussa Idrissa, Daniel Tetteh Quaye, Dêgbé Dé-siré Fiogbe Attanon, Charoula Meleti, Jonas von Bismarck, Thorsten Fehr and Vassilis Amiridis
- 13:00-13:15 Surface shortwave radiation measurements and modeling under intense desert dust conditions
Kyriakoula Papachristopoulou, Alexandra Tsekeli, Dimitra Kouklaki, Panagiotis Ioannis Raptis, Eleni Marinou, Vasilis Amiridis, Ilias Fountoulakis and Stelios Kazadzis
- 13:15-13:30 PBL height retrievals during ASKOS Campaign
Ioanna Tsikoudi, Eleni Marinou, Kalliopi Voudouri, Iliana Koutsoupi, Eleni Drakaki, Anna Kampouri, Ville Vakkari, Holger Baars, Elina Giannakaki, Maria Tombrou and Vassilis Amiridis

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ATHENS, LOCAL TIME

13:30-13:45

An Overview of the ASKOS Campaign in Cabo Verde
Eleni Marinou, Peristera Paschou, Ioanna Tsikoudi, Alexandra Tsekeri, Vasiliki Daskalopoulou, Dimitra Kouklaki, Nikos Siomos, Vasileios Spanakis-Misirlis, Kalliopi Artemis Voudouri, Thanasis Georgiou, Eleni Drakaki, Anna Kampouri, Kyriaki Papachristopoulou, Ioanna Mavropoulou, Sotiris Mallios, Emmanouil Proestakis, Antonis Gkikas, Iliana Koutsoupi, Ioannis Panagiotis Raptis, Stelios Kazadzis, Holger Baars, Athina Floutsi, Razvan Pirloaga, Anca Nemuc, Franco Marenco, Maria Kezoudi, Alkistis Papetta, G. Moc'nik, C. Ryder, N. Ratcliffe, and Vassilis Amiridis

13:45-14:00

Towards an aviation weather forecast for green operations
Gierens K., Matthes S., Hofer S. and Sperber D.

Wednesday 27/09/2023

Room A



Hellenic
Meteorological Society



University
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Mariolopoulos - Kanaginis Foundation
for the Environmental Sciences

16th International Conference on Meteorology, Climatology and Atmospheric Physics

COMECP 2023

Climate change
impacts on environment
and human health

Hybrid 25-29 September 2023 Conference Center of the University of West Attica, **Athens, Greece**

ATHENS, LOCAL TIME

09:00-09:30 **Registration-Welcome**

ATHENS, LOCAL TIME

ORAL SESSION Environment & Human Health

Chairpersons: **Assimakopoulou V.D. & Paschalidou A.**



- 09:30-09:45 The Heat Health Warning System in Germany - As Part of Heat Actions Plans
Andreas Matzarakis and Stefan Muthers
- 09:45-10:00 The HEAT-ALARM project: Development of a heat-health warning system in Greece
Christos Giannaros, Ilias Agathangelidis, Elissavet Galanaki, Constantinos Cartalis, Vassiliki Kotroni, Konstantinos Lagouvardos and Andreas Matzarakis
- 10:00-10:15 Calculation of inhaled dose of particulate matter for different age groups in the metro public transport system in Athens, Greece
Dimitrios-Michael Rodanas, Konstantinos Moustiris and Georgios Spyropoulos
- 10:15-10:30 Projections of heat-related mortality under the impact of climate change in Thessaloniki, Greece
Parliari D., Keppas S., Papadogiannaki S., Papadopoulos G., Kontos S., Melas D.
- 10:30-10:45 Artificial neural network models for the estimation of air temperature cooling and warming patterns inside urban clusters. The case of courtyards in Athens, Greece
Eleni Thoma, Konstantinos Moustiris, Areti Tseliou, George Papadopoulos and Ioannis Tsirros
- 10:45-11:00 Smoke dispersion from forest fire combustion products. Implementation at strategic, tactical and operational level
Iliopoulos N., Chalaris M., Solomos S., Kontoes C., Bartsotas N.S., Malounis A., Amiridis V., Marinou E., Mihalopoulos N., Eleftheratos K., Zerefos C.
- 11:00-11:15 Spatial variation of thermal conditions in Athens metropolitan area, Greece
Katerina Pantavou, Vassiliki Kotroni and Kostas Lagouvardos
- 11:15-11:30 The quality of the atmospheric environment during periods of confinement due to COVID-19 in the Attica basin
Ilias Jbeily and Konstantinos Moustiris

Wednesday 27/09/2023

Room B

11:30-12:00

Coffee Break





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ORAL SESSION Climatology (*In memoriam of Prof. Christos Repapis*)

Chairpersons: **Nastos P.T. & Anagnostopoulou Ch.**



- 12:00-12:15 Bioclimate change impacts on touristic destinations over the Mediterranean, by means of the assessment of human thermal perception
Panagiotis T. Nastos, Iliana D. Polychroni, John Kapsomenakis, Stavros Solomos, Christos S. Zerefos
- 12:15-12:30 Return periods in assessing climate change risks: uses and misuses
Efthymia Koliokosta
- 12:30-12:45 Assessing the Carbon Footprint of Teleworking: A Case Study of Two Research Projects Before and After the COVID-19 Pandemic
Papadogiannaki S., Liora N.I., Parliari D., Cheristanidis S., Poupkou A., Melas D.
- 12:45-13:00 Climate change impacts on indoor cultural heritage and collections in Greece
Efstathia Tringa and Konstantia Tolika
- 13:00-13:15 Circulation responses in the SE Mediterranean to large volcanic eruptions: the Katmai eruption
Sergios Misios, Vassilis Amiridis
- 13:15-13:30 Meteorological Parameters in Homer's Odyssey
Aggelis D.E.
- 13:30-13:45 Modelling the Urban Thermal Environment Through the Combined Use of WRF and the Local Climate Zones Approach: Case Study for Nicosia
Konstantina Koutroumanou-Kontosi, Constantinos Cartalis, Panos Hadjinicolaou, Katiana Constantinidou and Ilias Agathangelidis
- 13:45-14:00 Microclimate changes due to the Operation of Energy Infrastructures
Konstantinos Kalkanis, Nikolaos .M. Manousakis, Konstantinos Pachigianakis and Constantinos S. Psomopoulos

ATHENS, LOCAL TIME

Central Amphitheater

20:00-23:00 **Official Dinner**

"To Kapodistriako" Restaurant - "Kostis Palamas" Building
Akadimias Str. 48 & Sina Str., Athens, Greece
Tel.: 0030-21 0363 2537

Wednesday 27/09/2023

Room B



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ATHENS, LOCAL TIME

09:00-09:30 **Registration-Welcome**

ORAL SESSION Meteorology

Chairpersons: **Sioutas M. & Lagouvardos K.**



- 09:30-09:45 The predictability of the synoptic-scale fire weather conditions during the 2018 Mati wildfire
Papavasileiou G. and Giannaros M. T.
- 09:45-10:00 Methods of identification Coherent Structures in atmospheric numerical data
Vasilisa Koskhina and Alexander Gavrikov
- 10:00-10:15 The incipient cyclone stage of medicane Ianos
Souvatzoglou A., Kostopoulou E., Brikas D. and Pytharoulis I.
- 10:15-10:30 A break of the Etesian winds regime early in July 2022
Nicholas G. Prezerakos
- 10:30-10:45 ICON (ICOsaHedral Non-hydrostatic) Model Sensitivity over the Central Mediterranean
Euripides Avgoustoglou, Alon Shtivelman, Pavel Khain, Chiara Marsigli, Yoav Levi and Ines Cerenzia
- 10:45-11:00 Analysis of the extreme weather event “Athina” in early October 2021
Eleftheria Tsiniari and Euripides Avgoustoglou
- 11:00-11:15 Lightning-caused wildfires: The case of Mount Mainalo, Arcadia, Greece
Miltiadis Athanasiou, Panagiotis Nastos, Ioannis Kouretas and Athanasios Karadimitris
- 11:15-11:30 Modelling the air pollution and weather feedbacks from wild-fire emissions with WRF-Chem over Greece
Anastasios Rovithakis and Apostolos Voulgarakis

Thursday 28/09/2023

Room A

11:30-12:00 **Coffee Break**





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ATHENS, LOCAL TIME

ORAL SESSION Meteorology & Atmospheric Physics

Chairpersons: **Argyriou A. & Giannakaki E.**



- 12:00-12:15 Integrating remote and in-situ data to compare a watershed's hydrological response under pre- and post- fire conditions
Panagiota Maida, Elissavet Feloni, Panagiotis T. Nastos and Emmanuel Vassilakis
- 12:15-12:30 A contribution to the study of the Vardaris wind regime of the last 60 years
Dagkli V., Parasakis I., Brikas D. and Sarras C.
- 12:30-12:45 Short-Term Forecasting of Rainfall Using Sequentially Deep LSTM Networks. A Case Study on a semi-arid region
Ilias Chamtidis, Giorgos Tzanes, Dennis Istrati, Nikos D. Lagaros and Anastasios Stamou
- 12:45-13:00 Weather and Climate modelling simulations in important historical military events of Greece
John Kapsomenakis, Stavros Solomos, Panagiotis T. Nastos, Christos C. Repapis and Christos S. Zerefos
- 13:00-13:15 Variability of aerosol properties using AERONET retrievals and relation between aerosol optical depth and PM levels at Ioannina, Greece 2022
Stefanos Nasikas, Konstantinos Michailidis, Gavrouzou Maria, Michael Stamatis, Dimitris Balis and Nikolaos Hatzianastassiou
- 13:15-13:30 Evaluation of the CloudSat products with ACTRIS lidar/radar measurements over the Eastern Mediterranean
K.A Voudouri, E. Marinou, I. Koutsoupi, M.E. Koukouli, I. Tsikoudi, A. Battaglia and P. Kollias
- 13:30-13:45 A 16-year climatology of polar stratospheric clouds based on CALIPSO measurements (2006 - 2021) and relationship with the stratospheric temperatures
Konstantinos Koutsogiannis, Michalis Stamatis, Stergios Misios and Nikos Hatzianastassiou
- 13:45-14:00 Utilizing AEOLUS to improve dust transport modelling
Thanasis Georgiou, Emmanouil Proestakis, Antonis Gkikas, Konstantinos Rizos, Eleni Drakaki, Anna Kampouri, Athanasios Tsikerdekkis, Dave Donovan, Holger Baars, Athena Augousta Floutsi, Eleni Marinou, Angela Benedetti, Will McLean, Christian Retscher, Dimitris Melas and Vassilis Amiridis

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Room A



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ATHENS, LOCAL TIME

09:00-09:30 **Registration-Welcome**

ORAL SESSION Environment & Human Health

Chairpersons: Fameli K.M. & Cavoura O.



- 09:30-09:45 Trends and climatology of UTCI in the Czech Republic
Martin Hynčica, Martin Novák and Simona Procházková
- 09:45-10:00 Water quality and energy consumption in peri-urban agriculture: Lessons learnt from a real case-study in a municipality close to Athens
Dionysia Santi, Christiana M. Papapostolou and Panagiotis Ktenidis
- 10:00-10:15 Temporal variation of PM1 in the Campus of the University of Patras, Greece
Aristeidis Bloutsos and Panayotis Yannopoulos
- 10:15-10:30 Seawater Quality Measurements at the Two Ports of Patras, Greece
Aristeidis Bloutsos, Andriana Aravantinou, Ioannis D. Manariotis and Panayotis Yannopoulos
- 10:30-10:45 Environment and Public Health : Air Pollution and Chronic Diseases
Petropoulou P., Artopoulou I., Kalemikerakis I. and Govina U.
- 10:45-11:00 Application of AirQ+ software in Attica Region, Greece: hospitalizations and work days lost attributed to air pollutants
Paraskevi Begou
- 11:00-11:15 Studying the temporal and spatial characteristics of the long-term exposure to PM2.5 and O₃ economic burden for the period 2004-2019 in Greece
Kyriaki Psistaki, Ilias Petrou, Anastasia K. Paschalidou and Pavlos Kassomenos
- 11:15-11:30 Impact assessment of climate change on public health: A global perspective
Efthymia Koliokosta

11:30-12:00 **Coffee Break**

Thursday 28/09/2023

Room B





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ATHENS, LOCAL TIME

ORAL SESSION Climatology

Chairpersons: **Lolis Ch. & Tolika K.**



- | | |
|-------------|--|
| 12:00-12:15 | Bias Correction of daily precipitation on two Eastern Mediterranean stations with GAMs <i>Georgia Lazoglou, Theo Economou, Christina Anagnostopoulou, Anna Tzyrkalli, George Zittis and Jos Lelieveld</i> |
| 12:15-12:30 | Effects of climate change in agricultural areas of Greece, vulnerability assessment, economic-technical analysis, and adaptation strategies <i>Athanasiros Sarantopoulos and Stavros Korovesis</i> |
| 12:30-12:45 | January 2023: An extremely warm winter month in Thessaloniki, Greece <i>Kondylia Velikou and Konstantia Tolika</i> |
| 12:45-13:00 | A new proposed index for the quantification of temperature variability <i>Theodore Kalyvas and Efthimios Zervas</i> |
| 13:00-13:15 | How accurate climate information can help the climate adaptation in regional scale: the case study of Sitia <i>Alesia Golemi, Effrosyni Karakitsou, Stelios Karozis, Iason Markantonis, Nadia Politi, Athanasios Sfetsos, Diamanto Vlachogiannis and Pavlos Kapetanakis</i> |
| 13:15-13:30 | Aoos/Vjosa: The Protection of the River from Future Impacts of Climate Change and Anthropogenic Activities <i>Panagiotis Vretos</i> |
| 13:30-13:45 | A global climatology (2005-2021) of sea-salt aerosols using MODIS and OMI satellite data <i>Mastakouli Elli, Hatzianastassiou Nikos, Gavrouzou Maria, Marios-Bruno Korras-Carraca and Michalis Stamatis</i> |
| 13:45-14:00 | Comparison of cloud parameters from GOME-2 and assessment of cloud impact on tropospheric NO ₂ and HCHO retrievals <i>Athina Argyrouli, Ronny Lutz, Fabian Romahn, Víctor Molina García, Diego Loyola, Sora Seo, Pieter Valks, Isabelle De Smedt, Folkert Boersma, Lieve Gijsbert Tilstra, Piet Stammes and Steven Compernolle</i> |

ATHENS, LOCAL TIME

Central Amphitheater

Theatrical Performance

“Much Ado About Nothing” by William Shakespeare
UNIWA Theatrical Team - “The third bell”

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ATHENS, LOCAL TIME

09:00-09:30 **Registration - Welcome**

ORAL SESSION Climatology

Chairpersons: **Hatzaki M. & Meleti Ch.**



09:30-09:45 Changes of the annual and seasonal extreme precipitations over Southeastern Europe

Igor Leščešen, Biljana Basarin, Zorica Podraščanin and Minučer Mesaroš

09:45-10:00 Was the climate of Cyprus affected by the cold event of the Younger dryas? Results based on isotopic analyses of bones of the dwarf hippo Phanourios minor

Nakasi Maria Anna, Stathopoulou Elizabeth, Nastos Panagiotis, Tassi Maria, Karalis Petros, Theodorou Georgios, Tsoliakis Efthymios and Dotsika Elissavet

10:00-10:15 Local climate pressure on cultural heritage sites. The case of the ancient Greek theatre of Dodoni, Epirus Greece

Maria - Panagiota P. Nastou and Stelios C. Zerefos

10:15-10:30 Causal drivers of Mediterranean winter climate variability

Maria Hatzaki, Giorgia di Capua, John Chaniotis, Platon Patlakas, Reik V. Donner and Helena A. Flocas

10:30-10:45 Change of aridity index in the Mediterranean region under different emission scenarios

Kostas Douvris, Ioannis Kapsomenakis, Stavros Solomos, Anastasia Poupkou, Theodora Stavraka, Panagiotis Nastos and Christos Zerefos

10:45-11:00 Spatial and temporal changes of Diurnal Temperature Range in Greece - The urban effect

Dimitra Founda, Anna Mamara, Athanasios Argiriou, Fragiskos Pierros and Athanasios Sarantopoulos

11:30-12:00 **Coffee Break**

Friday 29/09/2023

Room A





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ATHENS, LOCAL TIME

ORAL SESSION Environment & Human Health

Chairpersons: **Melas D. & Kioutsioukis I.**



- 12:00-12:15 The Influence of Meteorological Parameters on PM2.5 Concentrations at the Aegean Islands
Kyriaki-Maria Fameli, Anna-Maria Kotrikla, Panayiotis Kalkavouras and Amalia Polydoropoulou
- 12:15-12:30 Seasonal changes on PM2.5 concentrations and emissions at urban hotspots in the Greater Athens Area, Greece
Fameli K.-M., Komninos D. and Assimakopoulos V.D.
- 12:30-12:45 Are Complete Blood Count parameters associated with climate and environmental factors? A retrospective study in the general population of Fokis, Greece
Athanasia Sergounioti, Dimitris Rigas, Petros Paplomatas, Aristidis Vrahatis and Konstantinos Lagouvardos
- 12:45-13:00 Seasonal and long term trends on involuntary mental health admissions in Attica, Greece
Ioannis Rizavas, Rossetos Gournellis, Nikos Pantazis, Evdokia Missouridou, Kostas Lagouvardos and Athanasios Douzenis
- 13:00-13:15 Microplastics in Yliki Lake, Greece: an explorative study
Olga Cavoura, Evagelia Mavrou and Ioanna Damikouka

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ATHENS, LOCAL TIME

09:00-09:30 Registration - Welcome

ORAL SESSION Environment & Human Health

Chairpersons: Zanis P. & Eleftheratos K.



- 09:30-09:45 Hydrochemical assessment of the aquifer of thermal waters Lixha, Elbasan using Stiff Diagrams
Elvin Como, Albana Hasimi, Emanuela Kiri, Edlira Tako, Astrit Shatro
- 09:45-10:00 Analysis of the January 2017 cold spell in Greece and its implications on human health
Effie Kostopoulou
- 10:00-10:15 Early warning impact of temperature and rainfall anomalies onto West Nile Virus human cases
Anastasia Angelou, Sandra Gewehr, Spiros Mourelatos, Ioannis Kioutsioukis
- 10:15-10:30 An improved indicator for causal interaction in non-linear systems
Nikolaos Kollas, Sandra Gewehr, Spiros Mourelatos and Ioannis Kioutsioukis
- 10:30-10:45 Heavy metals load on airborne magnetic particles from anthropogenic activities in a contaminated area in Northern Greece and their environmental impact
Chrysoula Chrysakopoulou, Dimitrios Vogiatzis, Alexandros Drakoulis, Lambrini Papadopoulou and Nikolaos Kantiranis
- 10:45-11:00 Risk assessment of toxic pollutant dispersion after methane pool fire accident in a street canyon
Palampigik A., Vasilopoulos K., Lekakis I., Sarris I.
- 11:00-11:15 Are lower solar irradiance and higher ambient particulate pollution associated with a higher incidence of COVID-19? The case of the Greater Athens Area
Despoina Tounta, Panagiotis T. Nastos and Konstantinos Eleftheratos
- 11:15-11:30 Source apportionment of water-soluble and water-insoluble metal content of coarse (2.5-10 mm) and fine (<2.5 mm) particulate matter (PM) in central Los Angeles
Mohammad Mahdi Badami, Ramin Tohidi, Vahid Jalali Farahani and Constantinos Sioutas

11:30-12:00 Coffee Break





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ATHENS, LOCAL TIME

ORAL SESSION Environment & Human Health

Chairpersons: **Kalabokas P. & Tourpali K.**



- 12:00-12:15 Measurement and comparison of inhalable dust between peri-urban forest and urban environment (after adjust title:
Assessment of urban PM retention by a peri-urban forest)
Vasiliki Dimou, Eleftheria Binopoulou and Chrisovalantis Malesios
- 12:15-12:30 Future ozone-related mortality under SSP3-7.0 scenario based on three CMIP6 earth system models
Akritidis D., Bacer S., Zanis P., Georgoulias A.K., Horowitz L.W., Naik V., O'Connor F.M., Keeble J., Le Sager P., van Noije T., Zhou P., Turnock S., Lelieveld J., Pozzer A.
- 12:30-12:45 Climate changes impact on the prevalence of tick-borne diseases in Europe
Maria E. Tsoumani, Sevastiani I. Papailia, Effie G. Papageorgiou and Chrysa Voyatzaki
- 12:45-13:00 Can Greek Twitter provide insight into the users' opinions on the adverse effects on health caused by climate change?
Vasiliki-Athina Tyrologou, Georgia Merkouriadi, Ioanna Karefyllaki, Nefeli Giannopoulou Marini, Christos Markou, Konstantinos Kesanopoulos and Anastasia Barbouni
- 13:00-13:15 Assessment of climate variability effects on air pollution and COVID-19 dynamics in Bucharest, Romania
Dan Savastru, Maria Zoran, Roxana Savastru, Marina Tautan
- 13:15-13:30 Geospatial and in-situ time series data use for assessment of air pollution impact on COVID-19 pandemic in few European metropolitan areas
Maria Zoran, Roxana Savastru, Dan Savastru, Marina Tautan

Friday 29/09/2023

Room B

ATHENS, LOCAL TIME

Central Amphitheater

14:00-15:30

Closing Ceremony

Hellenic Meteorological Society (HMS) General Assembly



Hellenic
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ATHENS, LOCAL TIME

09:00-09:30 Registration - Welcome

POSTER SESSION Meteorology

(Monitor A)



Tuesday 26/09/2023

Monitor A

- 09:30-09:45 Correlation between weather conditions and burnt areas in 25 years of forest firefighting by the Fire Brigade
Gouvas Markos, Papadopoulos Aristotelis, Bolis Stefanos and Iliopoulos Nikolaos
- 09:45-10:00 A satellite-based evaluation of upper-level aviation turbulence events over Europe during November 2009: A case study
V.T. Gerogiannis and H. Feidas
- 10:00-10:15 The impact of ocean-atmosphere coupling on the prediction of Mediterranean cyclones: A case study of medicane Ianos
John Karagiorgos, Ioannis Samos, Vassilios Vervatis, Sarantis Sofianos and Helena Flocas"
- 10:15-10:30 Background error statistics analysis over the Mediterranean: The impact on 3DVAR data assimilation
Ioannis Samos, Helena Flocas and Petroula Louka
- 10:30-10:45 On the dependence of WRF model air temperature and precipitation forecast skill on the weather type for northwestern Greece
Dimitrios C. Chaskos, Christos J. Lolis, Vasiliki Kotroni and Aristides Bartzokas
- 10:45-11:00 Lightning potential forecast evaluation and its correlation with thermodynamical indices
Gofa F., Boucouvala, D., Samos, J., Louka P.
- 11:00-11:15 Assimilation of in situ meteorological data to optimize a weather service for mosquito-control
Stergios Kartsios, Eleni Katragkou, Maria-Chara Karypidou, Sandra Gewehr and Spiros Mourelatos
- 11:15-11:30 Air mass trajectories regarding hydro meteorological disasters in Greece registered in EM-DAT database
Evangelos Papakitsos, Dimitrios Alexakis and Anastasios Mavrakis

11:30-12:00 Coffee Break





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POSTER SESSION Atmospheric Physics

(Monitor A)



- 12:00-12:15 Observations of Transient Luminous Events from Greece
Christos Doudoulakis, Thanasis Papathanasiou, Dimitris Sagiakos, Panagiotis Tsouras
- 12:15-12:30 Dust optical and microphysical properties of Saharan and Sau-di Arabian desert distributed in Europe based on AERONET data products
Elina Giannakaki, Eirini Verykiou, Eftychia Vasileiou and Mika Komppula
- 12:30-12:45 Microclimate monitoring using wireless sensors for the conservation of cultural heritage: The case of the Holy Cross hermitage in Olympus area, Greece
Christiana Papitsi, Theodore Ganetsos, Meropi Katsantoni, Christos Drosos and Eleni Symeonaki
- 12:45-13:00 An assessment of the relative importance of factors impacting surface UV radiation based on CMIP6 simulations
Anthi Chatzopoulou, Kleareti Tourpali, Alkiviadis F. Bais, Peter Braesicke and Roland Ruhnke
- 13:00-13:15 Simulations of Sky Radiances in Red and Blue Channels at Various Aerosol Conditions Using Radiative Transfer Modeling
Christos-Panagiotis Giannaklis, Stavros-Andreas Logothetis, Vasileios Salamalikis, Panayiotis Tzoumanikas, Konstantinos Katsidimas and Andreas Kazantzidis
- 13:15-13:30 Retrieval of aerosol optical properties via an all-sky imager and machine learning: Uncertainty in direct normal irradiance estimations
Logothetis S.A., Giannaklis C.P., Salamalikis V., Tzoumanikas P., Raptis P.I., Amiridis V., Eleftheratos K. and Kazantzidis A.
- 13:30-13:45 Impact of Aerosol Optical Properties, Precipitable Water, and Solar Geometry on Sky Radiances using Radiative Transfer Modeling
Christos-Panagiotis Giannaklis, Stavros-Andreas Logothetis, Vasileios Salamalikis, Panayiotis Tzoumanikas, and Andreas Kazantzidis
- 13:45-14:00 Design and implementation of low-cost data acquisition system for temperature and relative humidity measurements
Orestis Panagopoulos and Andreas Kazantzidis

Tuesday 26/09/2023

Monitor A



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09:00-09:30 Registration - Welcome

POSTER SESSION Environment & Energy

(Monitor B)



- 09:30-09:45 Solar Photovoltaic Energy Production Conditions in the Urban Environment of Athens, Cairo, Granada and Vienna
Stavros Vigkos, Panagiotis G. Kosmopoulos and Alexandros Papayannis
- 09:45-10:00 The Footprint of Road Transport Emissions: Electric Vehicles and their Impact on Air Pollution Reduction in Greece
Georgios Maniotis, Georgios Spyropoulos and Konstantinos Christopoulos
- 10:00-10:15 Energy Autonomy Scenario for the Island of Mykonos in Greece With Solar Power Plants
Agathi Nasioula and Panagiotis G. Kosmopoulos
- 10:15-10:30 Impact of Aerosols on Surface Solar Radiation and Solar Energy in the Mediterranean basin
Dimitra Kouklaki, Kyriakoula Papachristopoulou, Ilias Fountoulakis, Alexandra Tsekeri, Panagiotis- Ioannis Paptis, Stelios Kazadzis and Konstantinos Eleftheratos
- 10:30-10:45 A Technology Review on Decarbonization: Efficient Techniques for Producing Hydrogen as Fuel
I. Chrysocheris, E. C. Papakitsos, D. Pyromalis and N. Laskaris
- 10:45-11:00 Effect of Dust Events on Photovoltaics Electricity Production in the European and North African Regions
Davender Sethi and Panagiotis G. Kosmopoulos
- 11:00-11:15 Conductivity transport mechanisms of solution processed spinel nickel cobaltite-based hole transporting layers and its implementation as charge selective contact in organic photovoltaics
A. Ioakeimidis, A. Kottaras, D. Karageorgopoulos, E. Christia, S. Sakkopoulos, E. Vitoratos, S. A. Choulis and I. T. Papadas
- 11:15-11:30 CO₂ reduction and nZEB classification by upgrading electromechanical equipment in a public office building
Yiannis Laos and Kosmas Kavadias

11:30-12:00 Coffee Break





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POSTER SESSION Meteorology

(Monitor B)



- 12:00-12:15 Use of satellite-based indicators to study the role of jet stream superposition on high impact weather events in the Mediterranean region
Tsironis A., Cartalis C., Flocas H.
- 12:15-12:30 Estimation of precipitable water using thermal infra-red images
Vasileios Salamalikis, Panayiotis Tzoumanikas, Athanassios A. Argiriou and Andreas Kazantzidis

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09:00-09:30 Registration - Welcome

POSTER SESSION Meteorology

(Monitor A)



- 09:30-09:45 Synoptic, dynamic analysis and numerical simulations of extreme flood cases in Pieria region
Dimitrios Bampzelis, Stergios Kartsios, Ioannis Pytharoulis, Vassilios Kostopoulos, Christos Spyrou, Ioannis Tegoulias and Prodromos Zanis
- 09:45-10:00 Subseasonal-to-Seasonal Predictability Assessment of an Early Heat Wave in Eastern Mediterranean in May 2020
Dimitris Mitropoulos, Ioannis Pytharoulis, Prodromos Zanis and Christina Anagnostopoulou
- 10:00-10:15 The high-resolution numerical weather prediction system of Agroray project
Ioannis Pytharoulis, Stergios Kartsios, Vassilios Kostopoulos, Christos Spyrou, Ioannis Tegoulias, Dimitrios Bampzelis and Prodromos Zanis
- 10:15-10:30 Optimization of weather forecast data using machine learning algorithms
Dimitrios Soumelidis, Georgios Karoutsos, Nikolaos Skepastianos and Nicolas Tzonichakis
- 10:30-10:45 The impact of Aeolus wind profile measurements on severe weather events: A COSMO NWP case study over Thessaly
Ioannis Matsangouras, Evripidis Avgoustoglou, Ioannis Pytharoulis and Panagiotis Nastos
- 10:45-11:00 HNMS marine forecasts in cases of weather warnings: Verification against satellite measurements
Spyridoula Oikonomou, Dimitra Deli, Dionysia Kotta, Ioannis Matsangouras and Michail Myrsilidis
- 11:00-11:15 Extreme weather affecting sea chlorophyll: The case of a medicane
Dionysia Kotta
- 11:15-11:30 Utilizing HSAF SE-E-SEVIRI (H10) product to track seasonal and monthly variability in snow cover in part of Southern Balkans
A. Paraskevas, V. Skarmintzos, T. Stamatopoulos, A. Polyzos, I. Matsangouras, K. Kasapas, P. Nastos

11:30-12:00 Coffee Break





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POSTER SESSION Atmospheric Physics

(Monitor A)



- 12:00-12:15 PM_{2.5} retrieval using aerosol optical depth, meteorological variables, and artificial intelligence
Stavros-Andreas Logothetis, Georgios Kosmopoulos, Vasileios Salamalikis and Andreas Kazantzidis
- 12:15-12:30 Retrieval of total NO₂ columns using Direct-Sun DOAS measurements in Thessaloniki
Dimitrios Nikolis, Dimitris Kragkiozidis and Alkiviadis F. Bais
- 12:30-12:45 S5P/TROPOMI CH4 and CO total column validation over the Thessaloniki, Greece, COCCON site
Marios Mermigkas, Chrysanthi Topaloglou, Maria-Elissavet Koukouli, Dimitrios Balis, Frank Hase, Darko Dubravica, Tobias Borsdorff, Alba Lorente
- 12:45-13:00 Development and validation of an enhanced aerosol product for Aeolus (L2A+)
Rizos K., Gkikas A., Proestakis E., Georgiou T., Amiridis V., Marinou E., Donovan D., Benas N., Stengel M., Retscher C., Baars H., Floutsi A.A.
- 13:00-13:15 Analyzing four years of ground-based measurements of XCO₂ and XCO over Thessaloniki, Greece using FTIR spectroscopy
Thomas Panou, Chrysanthi Topaloglou, Marios Mermigkas, Dimitrios Balis, Darko Dubravica, Frank Hase
- 13:15-13:30 Lidar, ceilometer and drone-borne aerosol profiling during the EVIAN 2022 campaign in Cyprus
Peletidou Georgia, Papetta Alkistis, Kezoudi Maria, Alvanou Panagiota, Balis Dimitris and Marenco Franco
- 13:30-13:45 Performance of the Aerosol Species Separation Algorithm (ASSA) using data from a Raman-Depolarization lidar system at Thessaloniki, Greece
Konstantinos Michailidis, Nikolaos Siomos and Dimitris Balis
- 13:45-14:00 A deep learning framework for estimating global and diffuse solar irradiance using all-sky images
Vasileios Salamalikis, Panayiotis Tzoumanikas and Andreas Kazantzidis

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POSTER SESSION Climatology

(Monitor B)



- 09:30-09:45 Future evolution of agro-climatic indicators over a viticulture area in Greece
Vasileios Pavlidis, Stergios Kartsios, Maria Chara Karypidou and Eleni Katragkou
- 09:45-10:00 Multi-decadal monitoring of soil erosion rate in South Europe
Stefanos Stefanidis, Giorgos Mallinis and Vasileios Alexandridis
- 10:00-10:15 How has aridity changed over a fir (*Abies borisii-regis*) forest site in Central Greece during the past six decades?
Stefanos Stefanidis, Aristoteles Tegos and Vasileios Alexandridis
- 10:15-10:30 Climate benefits from methane mitigation
Sofia Eirini Paschou, Alkiviadis Kalisoras and Prodromos Zanis
- 10:30-10:45 On the northward shift of agro-climatic zones in Europe under different climate change scenarios
Dimitris Akritidis, Aristeidis K. Georgoulias, Roxanne S. Lorilla, Charalampos Kontoes, Andrej Ceglar, Andrea Toreti, Alkiviadis Kalisoras, Prodromos Zanis
- 10:45-11:00 Evaluation of ERA5 and ERA5-Land reanalysis precipitation data with rain gauge observations in Greece
Vasileios Alexandridis, Stefanos Stefanidis and Stavros Dafis
- 11:00-11:15 The link of extreme precipitation with the Clausius-Clapeyron relation: The case study of Thessaloniki, Greece
Alexandros Papadopoulos-Zachos and Christina Anagnostopoulou

11:30-12:00 Coffee Break

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POSTER SESSION Environment & Human Health

(Monitor B)



- 12:00-12:15 Evaluation of a commercial aerosol lidar scanner for urban pollution monitoring
Vassilis Kostopoulos, Ourania Soupiona, Georgios Georgoussis, Thanasis Georgiou, Anna Kampouri, Eleni Drakaki and Vasilis Amiridis
- 12:15-12:30 Developing A System for Integrated EnviRonmental Information in Urban areas: An Estimation of the impact of thermal stress on health
Melas D., Parliari D., Giannaros C., Liora N., Papadogiannaki S., Kontos S., Cheristanidis S., Occhiuto D., Frezzini M.A., Kushta J., Christoudias T., Chrysanthos Savvides, Ioannis Christofides, Casasanta G., Argentini S., Progiou A., Papastergios G., Kelessis A.
- 12:30-12:45 How did the COVID-19 lockdown affect maternal 25(OH)D levels in pregnant women, through improved air quality?
Kokkinari A., Dagla M., Lykeridou A., Bagianos K., Iatrakis G.
- 12:45-13:00 The contribution of carbonaceous aerosols on air pollution and excess mortality in Europe
Paisi N., Kushta J., Lelieveld J.
- 13:00-13:15 S.Ind.Ai.R. - School Network for Indoor Air Quality and Radon: An Innovative Platform for the Flexible Development of Indoor Environment Research Projects in Greek Schools
Evangelos Batris, Evangelia Georgaki, Dimitris Nikolopoulos, Ioannis Valais and Konstantinos Moustiris
- 13:15-13:30 Radon Assessment: An Overview of Concentration Variability and Synergies with Other Health Risk Factors in Indoor Air
Evangelos Batris, Dimitris Nikolopoulos, Ioannis Valais and Konstantinos Moustiris
- 13:30-13:45 Comparative Measurements of Air Pollution Using Low-Cost Sensors in the Center of Athens and the Mt. Hymettus Aesthetic Forest
Marianna Basoulou and Georgios Spyropoulos
- 13:45-14:00 On the influence of the prevailing weather regime on the atmospheric pollution levels in the city of Ioannina
Anna Soupiadou, Christos J. Lolis and Nikolaos Hatzianastassiou

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POSTER SESSION Meteorology

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- 09:30-09:45 A machine learning approach for rainfall nowcasting using numerical model and observational data
Georgios Kyros, Ioannis Manolas, Konstantinos Diamantaras, Stavros Dafis and Konstantinos Lagouvardos
- 09:45-10:00 An ensemble forecasting alternative based on stochastic parameter perturbation (SPP) on potential vorticity anomalies through the identification of weather features as coherent objects
Platon Patlakas, Diego S Carrió and Emmanouil Flaounas
- 10:00-10:15 Classification of Unmanned Aerial Vehicles in meteorology: A Survey
Christos Mourgelas, Evangelia Micha, Emmanouil Chatzistavrakis and Ioannis Voyatzis
- 10:15-10:30 Towards a Machine Learning Snowfall Retrieval Algorithm for GPM-IMERG
Ioannis Dravilas, Stavros Dafis, Georgios Kyros, Konstantinos Lagouvardos and Manolis Koubarakis
- 10:30-10:45 Design of a smart early warning hydrometeorological system. The EASY project in Ermionida
Angelos Chasiotis, Stefanos Chasiotis, Christos Theodorakis, Maria Bousdeki, Elissavet Feloni, Panagiotis T. Nastos
- 10:45-11:00 Soil optical and hydraulic properties of burnt forest areas in Greece after the implementation of post-fire restoration works. Preliminary results
Proutsos N.D., Solomou A.D., Michopoulos P., Bourletsikas A., Tsilikounas S., Louka V., Lattas P. and Kalliris P.
- 11:00-11:15 Flash flood forecasting using integrated meteorological-hydrological-hydraulic modeling: application in a Mediterranean river
George Varlas, George Papaioannou, Anastasios Papadopoulos, Vassiliki Markogianni, Leonidas Vardakas and Elias Dimitriou
- 11:15-11:30 High-resolution ICON-LAM simulations over complex terrains in Southern Italy
Bucchignani E., Cinquegrana D. and Zollo A.L.

11:30-12:00

Coffee Break





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POSTER SESSION Atmospheric Physics

(Monitor A)

- 12:00-12:15 Using radiometric measurements to separate dust and smoke radiative effects during a combined smoke-dust event
Ilias Fountoulakis, Nikolaos Siomos, Ioannis-Panagiotis Raptis, Kostas Eleftheratos, Dimitra Kouklaki, Basil E. Psiloglou, Vassilis Amirdis and Stelios Kazadzis
- 12:15-12:30 The global and diffuse solar radiation trends using GEBA & BSRN ground based measurements during 1984-2018
Michael Stamatidis, Pavlos Ioannou, Marios Bruno Korras Carraca, Nikolaos Hatzianastassiou
- 12:30-12:45 Dust orientation measurements in ASKOS/ESA campaign
Alexandra Tsekeri, Vassilis Amirdis, Spyridon Metallinos, Sotirios Mallios, Peristera Paschou, Nicolaos Siomos, Ioanna Tsikoudi, Dimitra Kouklaki and Eleni Marinou
- 12:45-13:00 How aerosol influences the cloud formation and evolution?
Rodanthi-Elisavet Mamouri, Albert Ansmann, Argyro Nisantzi, Dragos Ene, Diofantos Gl. Hadjimitsis
- 13:00-13:15 Cloud types and geometrical properties observed above PANGEA observatory in the Eastern Mediterranean
Koutsoupi I., Marinou E., Voudouri K.A., Tsikoudi, I., Paschou P., Amirdis V., Battaglia A., Kollias P., Giannakaki E.

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POSTER SESSION Environment & Human Health

(Monitor B)



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- 09:30-09:45 Estimating the air pollution intake dose in three port cities in Europe with the use of ambient PM2.5 measurements from low-cost sensors
Karagiannopoulou Efstratia, Fameli Kyriaki-Maria, Tsitsis Christos, Moustris Konstantinos., Ntourou Kleopatra
- 09:45-10:00 Urban air quality in a residential building in Athens, Greece
Nikolakou Marita-Louiza and Spyropoulos George
- 10:00-10:15 The influence of ozone concentrations on public health over the Greater Athens Area, Greece
Kleopatra Ntourou, Kyriaki-Maria Fameli, Konstantinos Moustris, Antonios Augoustinos, Christos Tsitsis
- 10:15-10:30 Exploring the association of heat stress and human health in Cyprus
Fragkeskos Kekkou, Georgia Lazoglou, Theo Economou and Christina Anagnostopoulou
- 10:30-10:45 Machine Learning Regression to Predict Pollen Concentrations of Oleaceae and Quercus taxa in Thessaloniki, Greece
Papadogiannaki S., Kontos S., Parliari D., Melas D.
- 10:45-11:00 Particulate matter and adverse health effects in a medium sized Mediterranean city, Greece. An eighteen-year investigation
George Proias, Konstantinos Moustris, Panagiotis Nastos
- 11:00-11:15 Environmental Impact of urban design elements in a Mediterranean City
Areti Tseliou, Emmanouil Melas, Athina Mela and Ioannis Tsilos
- 11:15-11:30 The correlation between the temperature, precipitation, and re-ferrals for physical therapy for patients with chronic musculo-skeletal problems
Vrouva S., Sopidou V., Papatsimpas V., Chanopoulos K., Koumantakis G. A.

11:30-12:00 Coffee Break





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POSTER SESSION Climatology

(Monitor B)



- | | |
|-------------|--|
| 12:00-12:15 | Evaluation of urban bioclimatic measurements towards an easier and more affordable way of instrumental monitoring <i>Melas E., Mela A., Tsilos I., Varelidis G.</i> |
| 12:15-12:30 | Mean daily temperature estimations and the impact on climatological applications <i>Kolyvas Ch., Missiakoulis S. and Flora Gofa</i> |
| 12:30-12:45 | On the methane emissions of the Greater Thessaloniki Area <i>Konstantinos Kourtidis, Apostolos Tzivleris, Stavros Stathopoulos, Alexandra Gemitzi and Aristeidis K. Georgoulas</i> |
| 12:45-13:00 | Vertically resolved direct radiative effects of intense Mediterranean dust episodes during the period 2005-2018 <i>Maria Gavrouzou, Nikos Hatzianastassiou, Marios Bruno Korras-Carraca, Michalis Stamatis, Christos J. Lolis, Christos Matsoukas, Nikos Mihalopoulos, Ilias Vardavas</i> |
| 13:00-13:15 | The influence of local weather types on the development and intensity of the urban heat island in Attica region using big data from the Copernicus service <i>Ilias Petrou, Nikolaos Kyriazis and Pavlos Kassomenos</i> |
| 13:15-13:30 | A Climatology of Dust Aerosol Episodes over Asia and Caspian Sea <i>Petros A. Belimezis, Nikolaos Hatzianastassiou, Maria Gavrouzou and Marios-Bruno Korras-Carraca</i> |
| 13:30-13:45 | Study of the seasonality of extreme precipitation events over the Mediterranean for the future period 2081-2100 <i>Marina Antoniadou and Christina Anagnostopoulou</i> |
| 13:45-14:00 | Top European Droughts since 1991 <i>Marilina Olga Voudouri, Liaskou Pavlina, Errikos Michail Manios, Christina Anagnostopoulou C.</i> |

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- 09:30-09:45 Impact of Climate Change on Olive Crop Production in Halkidiki, Greece
Ilias Kalfas, Christina Anagnostopoulou and Errikos Michail Manios
- 09:45-10:00 Fire weather assessment of future changes in fire weather conditions in the Attica region
Politi N., Vlachogianni D., Sfetsos A., Gounaris N.
- 10:00-10:15 Identifying the Relationship between Climate Parameters and Teleconnection Patterns in the North Atlantic Ocean
Dafni Delioglani and Christina Anagnostopoulou
- 10:15-10:30 Investigation of Climate Change Impacts on the Building Materials of Archeological Monuments
Iason Markantonis, Athanasios Sfetsos, Diamando Vlachogiannis, Ioannis Kioutsioukis, Anastasia Michalopoulou, Vassilis Kilikoglou and Ioannis Karatasios
- 10:30-10:45 Assessment of present and future flood hazards in Thasos island, Greece
Nikolaos Moisidis, Vasileios Pavlidis, Antonios Mouratidis, Marios Sapountzis and Eleni Katragkou
- 10:45-11:00 Internal climate variability and extreme temperatures over the Mediterranean
Christos Kourtesiotis, Quan Liu, Kostas Philippopoulos, Chris Tzanis, Daniela Matei and Helena Flocas
- 11:00-11:15 The Snowball Earth Episodes
Angelos Siozos, Fragiskos Markozanes, Georgios Gagaras, Iliana Polychroni, Konstantinos Laios, Sotirios Arsenis, Vasiliki Roussi and Christina Papaioannou
- 11:15-11:30 The impact of the Atlantic Meridional Overturning Circulation (AMOC) variability on the Mediterranean climate
Nikoletta Petridi, Iliana Polychroni and Maria Hatzaki

11:30-12:00 Coffee Break





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POSTER SESSION Climatology

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- 12:00-12:15 Modelling future forest-fire risk for the tourism sector of Crete
Magdalini Tzouveleki, Maria Hatzaki, Varvara Antoniou, Anna Karali and Christos Giannakopoulos
- 12:15-12:30 Analysis of Climate-Based Conditions on Irrigation in the Bačka region (Northern Serbia)
Mirjana Radulović, Dragana Blagojević, Biljana Basarin, Robert Wilby
- 12:30-12:45 Statistical downscaling of ERA5 reanalysis precipitation over the complex terrain of Greece
Giorgos E. Ntagkounakis, Panagiotis T. Nastos and Yiannis Kapsomenakis
- 12:45-13:00 Snow depth trends at European ski resorts
Ioannis Masloumidis, Stavros Dafis, Georgios Kyros and Konstantinos Lagouvardos
- 13:00-13:15 Modelling the impact of climate change on the hydrology of Eurotas basin
Natalia Kotsianou and Elissavet Feloni

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- 09:30-09:45 Validating the Copernicus European Regional Reanalysis (CERRA) dataset for human-biometeorological applications
Elissavet Galanaki, Christos Giannaros, Ilias Agathangelidis, Constantinos Cartalis, Vassiliki Kotroni, Konstantinos Lagouvardos and Andreas Matzarakis
- 09:45-10:00 Climate Change and Adverse Public Health Impacts on Human Health and Water Resources
Adamopoulos I., Frantzana A., Adamopoulou J., Syrou N.
- 10:00-10:15 The effect of Apparent Temperature on all-cause mortality in England, UK
Psistaki K. and Paschalidou A.K.
- 10:15-10:30 The evolution of the seasonal variation and the summer diurnal variation of the primary and secondary photochemical air pollution in Athens
Kalabokas P., Stavraka Th., Kapsomenakis J., Poupkou A. and Zerefos C.
- 10:30-10:45 Investigation of atmospheric pollution impacts on hospital admissions in Attica, using regression models
Aggelos Kladakis, Kyriaki-Maria Fameli, Konstantinos Moustris, Vasiliki D. Assimakopoulos and Panagiotis Nastos
- 10:45-11:00 A smart integrated platform for leakage detection on the water supply network of Aigio town, Greece
Angelos Chasiotis, Dimitris Piromalis, Panagiotis Papageorgas, Stefanos Chasiotis, Maria Bousdeki, Panagiotis T. Nastos, Elissavet Feloni
- 11:00-11:15 Detection of plastic and petroleum hydrocarbon pollution at sea with Laser-Induced Fluorescence
Eleni Drakaki, Evangelini Zekou, Michail Serris, Nikolaos Merlemis
- 11:15-11:30 The cave ecosystem in the research of new antibiotic discovery and development
Alexandra Mpakosi, Maria Mironidou-Tzouveleki

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Coffee Break





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- 12:00-12:15 Aneurysms in the times of the climatic change
Karagianni E. and Karagianni A.

- 12:15-12:30 Source Apportionment of the Atmospheric Aerosol
in Western Macedonia, GREECE, Part 1: Concentrations
of metallic components, major ions, and PAHs in PM₁₀
samples
*Stylianos Gkaras, Eleni Triantafyllou, Anna Dougali,
Christos Diamantopoulos, Evangelos Tolis and
Athanasios Triantafyllou*

- 12:30-12:45 Plastics, bioplastics and water pollution
Ioanna Damikouka, Olga Georgiadou and Olga Cavoura

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Type of Attendance

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26 Marathonomonon St., 151 24 Maroussi, Greece

Tel.: +30 210 68 27 405 & +30 210 68 39 690-1 | **Fax:** +30 210 68 27 409

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