



ΠΑΝΕΠΙΣΤΗΜΙΟ ΚΡΗΤΗΣ  
UNIVERSITY OF CRETE



Δήμος  
Αγίου Νικολάου



Edu  
4  
ClimAte

# AUTUMN SCHOOL

## Advanced Atmospheric Observations, Data Mining & Modelling

22–26 September 2025

Agios Nikolaos, Crete, Greece

### Who is it for

This intensive course is suitable for both M.Sc. and Ph.D. students in atmospheric and Earth system sciences.

### Course fees

There are no registration fees for participation in this course. Complimentary lunch will be provided to autumn school students during the course. A shuttle bus transferring students from/to the campuses from/to the center of Agios Nikolaos will be available for free.

Students are expected to organize and cover their own travel and accommodation, and any other expenses relating to their stay in Agios Nikolaos city.



### MAIN INSTRUCTORS

Prof. Maria Kanakidou  
Prof. Nikos Mihalopoulos  
Dr. Nikos Kalivitis, (UoC)  
Prof. Andreas Stohl  
Dr. Vinita Deshmukh (Uni. Vienna)  
Dr. Martin Vojas, (UoC, Uni Vienna)  
Prof. Mihalios Vrekoussis  
Dr. Nikos Daskalakis  
Dr. Marius Dan (Uni Bremen)  
Dr. Mihalios Pikridas (Cyl)

### ABOUT THE COURSE

The school will focus on mining and using atmospheric science data, and numerical models.

Participants will be offered theoretical training (lectures), visit to Finokalia monitoring station, hands-on computer-based data processing and numerical modeling. Short presentations will also be made by the participants at the end of the school.

Participants will be distributed into small groups of 4–5 trainees; each group being supported by a team of two Faculty/Researchers.



# AUTUMN SCHOOL DETAILS

## LECTURES AND HANDS-ON EXERCISES WILL INCLUDE

### Atmospheric composition and climate in the region

- Advanced observations
- Principles of in-situ and remote sensing observations.
- Data acquisition
- Calibrated observations, citizen science and new technologies

### Data mining and analysis tools

- Databases for in-situ, aircraft, remote sensing, and satellite observations
- Statistical analysis, PMF analysis
- AI, python tools
- Hands on exercises

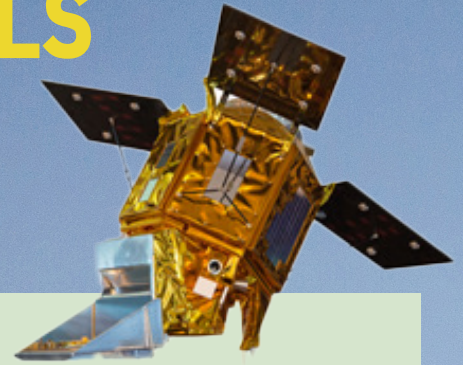
### Atmospheric Transport Modelling

- Principles of forward and inverse modelling.
- Flexpart Atmospheric model.
- Principles of climate chemistry models and Earth system models
- Emission scenarios and databases
- Presentation of applications, examples focusing on the region



This Autumn School is organized within the framework of the Horizon Europe project Edu4Climate ([edu4climate.cyi.ac.cy](http://edu4climate.cyi.ac.cy))

Course organization is led by UOC, the University of Crete, and the Municipality of Agios Nikolaos (MAN), and the Edu4Climate Consortium partners



### Application process

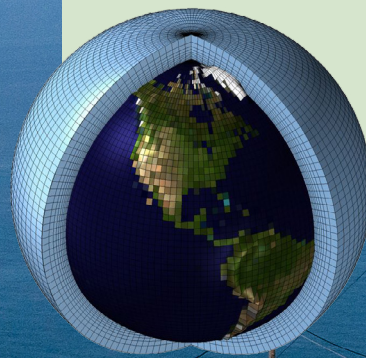
To participate in the Autumn School, potential students are required to apply through the [Autumn School online form](#).

All applications will be reviewed by the Autumn School scientific committee after the application deadline has passed.

### Application deadline:

29 August, 2025

Contact: [nkalivitis@uoc.gr](mailto:nkalivitis@uoc.gr)



## ORGANIZERS

MAN through its collaboration with Hellenic Mediterranean University provides access to amphitheater and computer room facilities in the vicinity