ACTRIS training course: Atmospheric observations of aerosols, clouds and reactive trace gases

Online, May 8th-15th, 2023

ACTRIS is a pan-European research infrastructure producing high-quality data and information on short-lived atmospheric constituents (aerosols, clouds and reactive trace gases) and on the processes leading to the variability of these constituents in natural and controlled atmospheres. This training school is an introductory course focusing on the variables and measurement techniques relevant to ACTRIS.

Course contents: introduction to ACTRIS research infrastructure and data portal, data management and curation, data quality, open data. Basic principles behind the most important variables and measurement techniques in ACTRIS. During the course the students will formulate own research questions and use open data to answer them.

Learning outcomes: after the course the participants know what the ACTRIS infrastructure offers and how it is related to other environmental research infrastructures; they know how ACTRIS data is produced and curated; they can use ACTRIS data for answering own research questions; they know where to find more information about the data and measurements. They are familiar with most important variables and measurement techniques related to aerosols, clouds and reactive trace gases, including their advantages and limitations.

Teaching methods:

The course consists of a pre-assignment, lectures, group work and a report to be handed in after the course. The lectures are given via Zoom during the intensive period (8th to 15th May, ca. 9-17 CEST daily).

Master and doctoral students will obtain a certificate corresponding to 5 ECTS after successful participation (attendance on lectures and completing all assignments).

Target group and prerequisites:

The course is intended to advanced master students, doctoral students and early-career scientists, but it is open also to other participants interested in ACTRIS research infrastructure and/or intending to use ACTRIS data. The course is free-of-charge.

Good English understanding and speaking skills, as well as basic knowledge about atmospheric science is required. The students should have basic skills in data analysis using a program of their liking (e.g. Matlab, Python, …).

Teachers:

The course is coordinated by *Associate Prof. Katrianne Lehtipalo* (University of Helsinki). Lectures are given by experts from the ACTRIS science community and central facilities. More detailed program is available later.

Application/registration:

Fill in the form at:
https://elomake.helsinki.fi/lomakkeet/121986/lomakkeet.html

Deadline for applying to the course: **April 3rd**

Requests of information:

For any additional information about the course, please contact:
katrianne.lehtipalo@helsinki.fi

Course organizer:

The course is organized by University of Helsinki, Institute of Atmospheric and Earth System Research (INAR) and ATM-MP Master Program, within the framework of the European research infrastructure ACTRIS and in collaboration with iLEAPS, PEEX, ATM-DP Doctoral Program, the Nordic Graduate School "Biosphere-Carbon-Aerosol-Cloud-Climate Interactions" (CBACCI) and Nordic Master's Degree Program "Atmosphere-Biosphere-Studies" (ABS).

Preliminary schedule of the course:

Course schedule (small changes possible). All times in CEST (Central European Summer time, UTC+2)

	Mon 8.5.	Tue 9.5.	Wed 10.5.	Thu 11.5	Fri 12.5.	Sat 13.5.	Sun 14.5.	Mon 15.5.
Morning session (9-12 CEST)	Lectures	Lectures	Lectures	Lectures	Lectures	Group work	Group work	Group presentations
Lunch break								
Afternoon session 1 (13-15 CEST)	Lectures	Lectures	Group presentations	Lectures	Group work			
Afternoon session 2 (15-17 CEST)	Group work	Group work	Group work	Group work	Group work			