

hAerosol optical properties workshop



25 November and 2 December 2021

The workshop is organized by the Italian Aerosol Society (IAS; <http://www.iasaerosol.it/>) with the support of its Working Group 3 (Atmospheric aerosol: properties, processes and atmospheric changes).

The workshop has the main aim to highlight the state of the art of aerosol optical properties determination and applications paying attention to the procedures that are implicitly applied as valid in the research activity and to the critical issues not yet completely overcome in the literature.

At this purpose 30 minutes are scheduled after each talk for questions and comments to promote a fruitful discussion inside the scientific community

The first day is mostly devoted to the aerosol optical properties measurements (directly or via remote sensing) and their use in apportionment methods.

The second day is devoted to of the aerosol optical properties calculation, application in climate models, and the remote sensing applications related to inversion models for the retrieval of aerosol types and microphysical properties

Scientific Program

<u>25 November</u>
9:15-9:30 D. Contini & L. Ferrero: Day1 Workshop opening
Session 1
Chairman: Dario Massabò
9:30-10:30 H. Horvat: General overview on aerosol optical properties and insight into aerosol scattering methods, and their advantages and limitations
10:30-11:00 Discussion
11:00-12:00 Grisa Mocnik: Aerosol absorption methods, from filter-based to airborne direct techniques. Applications from ground to airborne platforms
12:00-13:00 Discussion
13:00-13:30 Lunch break
Session 2
Chairman: Gabriele Curci
13:30-14:30 Dario Massabò: Scattering and absorption, environmental applications to source species apportionment. Applications, limitations and future perspective
14:30-15:00 Discussion
15:00-16:00 C. Ritter: Remote sensing of atmospheric aerosol, retrieval and inverse problems for aerosol - synergy with ground based measurements
16:00-16:30 Discussion

16:30-16:45 L. Ferrero: Closing of Day1
<u>2 December</u>
9:15-9:30 L. Ferrero: Day2 Workshop opening
Session 3
Chairman: Henri Diémoz
9:30-10:30 G. Curci: Computation of aerosol optical properties and climate forcing in GCM. Most used methodologies (advantages and limitations) and needs from experimental campaigns for useful improvements and integrations
10:30-11:00 Discussion
11:00-12:00 L. Mona: Aerosol typing from remote sensing observations
12:00-13:00 Discussion
13:00-13:30 Lunch break
Session 4
Chairman: Giulia Pavese
13:30-14:30 D. De Santis: Machine learning methods in the retrieval of aerosol quantities from EO data, synergy with radiative transfer model based simulations
14:30-15:00 Discussion
15:00-16:00 L. Alados Arboledas: Retrieval of aerosol microphysical properties by combination of photometry and lidar observations
16:00-16:30 Discussion
16:30-16:45 D. Contini & L. Ferrero: Closing of the workshop

Registration

The registration for the workshop is free of charge and is available via the electronic form which can be found on the following website: <http://www.iasaerosol.it/>

The registration deadline is 20 November 2021.

Venue and language

The workshop activities will be held online within ZOOM platform. The workshop is hosted by the Italian Aerosol Society (IAS; <http://www.iasaerosol.it/>). The official language is English.

Organization/Scientific committee

Contini Daniele
 Curci Gabriele
 Diémoz Henri
 Ferrero Luca
 Massabò Dario
 Pavese Giulia

Contact people

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