Karlsruhe Institute of Technology

European Federation of Clean Air and Environmental Protection Associations (EFCA) International Symposium

Ultrafine Particles – Air Quality and Climate

Online Conference
June 17, 2026

Program

EFCA

HOST ORGANIZATIONS

KIT | Karlsruhe Institute of Technology
Karlsruhe Institute of Technology (KIT) pools its three core tasks of research, higher education, and innovation in a mission. The KIT Climate and Environment Center develops strategies and technologies to secure the natural bases of life.
www.kit.edu

EFCA | The European Federation of Clean Air and Environmental Protection Associations aims at encouraging professional activity in Europe while working at the interface between science and (European) policy on environmental problems.
www.efca.net

GUS | Gesellschaft für Umweltsimulation e.V. (Society for Environmental Engineering). It is the organization of people, institutions and companies who work in environmental engineering and testing. Since 1969, GUS supports the development of environmental engineering on a non-profit basis.
www.gus-ev.de

CEEES | The Confederation of European Environmental Engineering Societies is the umbrella organisation of national technical societies for environmental engineering and testing. CEEES promotes technical advisory boards, seminars and conferences with the support of national member societies.
www.ceees.org

INTRODUCTION

Ultra Fine Particles (UFP), are considered to cause serious health problems and environmental effects. Combustion is a major source, also by producing volatile organic pollutants which are converted in the atmosphere by photochemical reactions. Increasing applications of man-made nanomaterials add to the problem. A further interest results from their specific role in atmospheric processes such as cloud formation and precipitation and, in fact, in climate. The relation between UFP and human health and that of UFP and climate are both areas of intense research and cross-links between these fields are found nowadays.

The political objective to decrease exposure to particulate matter makes use of the mass-based metrics PM_{10}/$PM_{2.5}$, which do not properly represent all risks for human health. EFCA is, therefore, in favor of the development of a fraction-by-fraction approach on particulate matter, both with respect to size and chemical composition. This position was adopted by the European Commission in the recent Air Quality Directive which has marked Ultrafine Particles and Black Carbon Particles as pollutants of emerging concern and has called for appropriate measurements to be taken.

EFCA's 10th Ultra Fine Particles Symposium 2026 will again feature the most recent scientific progress and improve the dialogue with policy- and rule makers in Europe.

EFCA and KIT, together with GUS and CEEES are pleased to organize this event 2026 in an online format. We cordially invite all experts to contribute actively and hope to see you in the virtual meeting.

PROGRAM

Register here
to join the conference

WEDNESDAY, JUNE 17 | ONLINE (ZOOM)

14:00 – 14:10
Opening & Welcome
Gordana Pehnec; Thomas Leisner

14:10 – 14:35
Keynote 1
Meritxell Garcia-Marlès

14:35 – 15:15
Session 1 Urban
Alexander Mangold
Claudia Hak
Soatoavina Randrianomenjanahary
Astrid Manders

15:15 – 15:25
Break

15:25 – 15:50
Keynote 2
Armin Hansel

15:50 – 16:20
Session 2 Observations
Anneke M. Batenburg
Wolfgang Junkermann
Chris Nickolaus

16:20 – 16:30
Break

16:30 – 16:55
Keynote 3
Johan Øvrevik

16:55 – 17:25
Session 3 Sources & health
Zhiqiang Zhang
Sonja Mülhopt
Noël Daemen

17:25 – 18:00
Discussion
Karl-Friedrich Ziegahn & all Participants

THE SESSIONS

Keynote 1
Meritxell Garcia-Marlès, University College Cork
Ultrafine Particles in Urban Europe: Phenomenology, Sources, Trends and Policy Implications

Session 1
Alexander Mangold, Royal Meteorological Institute of Belgium, Uccle
Fine particle number concentration and size distribution for the urban background in Brussels, Belgium
Claudia Hak, NILU, Kjeller
Ultrafine particle sources in Oslo, a highly electrified city
Soatoavina Randrianomenjanahary, IMT Nord Europe
Long term variation of UFP sources: Rising evidence for increasing nucleation sources contribution
Astrid Manders, TNO NL
Emission inventories and modelling of ultrafine particles, from city scale to Europe-wide

Keynote 2
Armin Hansel, University of Innsbruck
Ultrafine particle exposure from individual aircrafts in Innsbruck

Session 2
Anneke M. Batenburg, National Institute for Public Health and the Environment (RIVM), Bilthoven
Expansion of UFP measuring capabilities of the Dutch National Air Quality Monitoring Network
Wolfgang Junkermann, Institut für Meteorologie und Klimaforschung (IMK), Karlsruhe
UFP - where, when, why and how many?
Chris Nickolaus, Cambustion Inc., Cambridge
Indoor domestic measurements of total and non-volatile particle numbers using a fast CPC

Keynote 3
Johan Øvrevik, NIPH Folkehelseinstituttet, Oslo
Primary and secondary particles from transport emissions. Role of chemical composition for toxicity of ultrafine particles

Session 3
Zhiqiang Zhang, MPI for Chemistry, Mainz
Diffusivity and concentration profiles explain slow atmospheric nanoparticle growth
Sonja Mülhopt, Karlsruher Institut für Technologie KIT
ALI and submerged exposure of human cells towards carbon fibres
Noël Daemen, Additive Mindset, Maastricht
How safe is Additive Manufacturing?

INTERNATIONAL ADVISORY COMMITTEE

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INFORMATION & IMPRINT

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Proceedings

Presentations will be distributed electronically after the Symposium.

Venue

Online Conference
Please register (free of charge) »
https://ufp.efca.net/index.php/registration-and-fee/

Information

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