



**Workshop | First Announcement**

***In-situ aerosol particle flux measurements – post-processing and analysis***

**Dates: 3-5 May 2017**

**Location: Hyytiälä Forestry Field Station, Finland**

**Goals of the workshop:**

1. Consolidate the international community of scientists working on tower-based aerosol particle flux measurements
2. Discuss protocols and develop consensus around standards and measurement techniques
3. Examine the impact of potential corrections, their correct utilisation, including those for temperature and water vapour fluctuations.

**Abstract:**

The exchange of aerosol particles between the atmosphere and the underlying surface plays a significant role in determining the mass and number distribution of atmospheric aerosol particles. However, it is still unclear how different ecosystems emit particles of different sizes to the atmosphere, and more important, how different surfaces remove particles from the atmosphere via dry deposition. Measurements of particle surface-atmosphere exchange have been made in various ecosystems with different methods and different variables, but to date there is no systematization of instrumentation, data analysis and representativeness of the measurements. These differences cover measurement techniques from direct eddy covariance to disjunct eddy and relaxed eddy accumulation techniques, differences in instrumentation measuring either total particle (by mass or by number) or size-segregated number concentrations, and differences in particle flux post-processing tools including instrument-dependent applied corrections. At present, many corrections routinely applied to other scalar fluxes, such as those monitored in the context of ICOS (*Integrated Carbon Observation System*), are estimated or even ignored in particle flux studies due to limited understanding.

In H2020 funded project ACTRIS-2 (*Aerosols, Clouds and Trace Gases Research Infrastructure*) one of the joint research activities aims to systematise the tower-based aerosol particle flux measurements and their post-processing. Within the project raised a need to bring together the scientific community utilising tower-based aerosol flux measurements in different ecosystem to discuss about the technical details of the measurements as well as on post-processing methods.

If you do not know Hyytiälä Forestry Field station, in short: we have organized several international workshops and summer schools here over the years. We always create a relaxing but inspiring spirit in the meetings. The closest entertainment (pubs etc.) are kilometers away, which guarantees that we are together all the time, but we have enough beer etc. in the station. The workshop also includes the excursion to the SMEAR II field station, which is an ACTRIS site (see [www.atm.helsinki.fi/SMEAR/](http://www.atm.helsinki.fi/SMEAR/) and [www.actris.eu/](http://www.actris.eu/)).

**Agenda:**

Detailed agenda will be announced by the end of February 2017. The final registration is requested by mid-March.

**Funding:** Local travel costs (bus Helsinki-Hyytiälä-Helsinki) are funded by the University of Helsinki. Most participants will meet their own flight and accommodation costs (ca. € 110 per night for a single / € 100 for a shared room, including all meals and saunas). European non-ACTRIS participants can apply for TNA funding (<http://www.actris.eu/DataServices/ObservationalFacilities/ApplyforTNA.aspx>) for the workshop. Also, if your schedule does not match with the organized bus transport, you are asked to cover the local transport by yourself. You should plan your schedule to arrive in Helsinki on Wednesday 3 May before noon and you can book your departure flights from Helsinki 4 pm onwards on Friday evening.

**Registration and all questions:**

Please register to MSc Joonas Enroth, Department of Physics, University of Helsinki ([joonas.enroth@helsinki.fi](mailto:joonas.enroth@helsinki.fi)) and CC Leena Järvi [leena.jarvi@helsinki.fi](mailto:leena.jarvi@helsinki.fi), Department of Physics, University of Helsinki.

**\*\*\* The preliminary registration deadline has been extended to 10 February \*\*\***

**Additional information for registration:**

Name:

Affiliation:

Telephone number:

Email:

Potential speaker (YES/NO) and a tentative title:

Prepared to share the room:

Additional information (vegetarian, allergies etc.):