ACCC-FASN Science Conference 2026

Conference Program

version 30 October 2026

ACCC
ATMOSPHERE AND CLIMATE COMPETENCE CENTRE

Monday, 30 November 2026

11:00 – 12:00 Opportunity for lunch on campus

12:00 – 12:20 Opening ceremony

12:20 – 12:50 News and Fresh Faces

12:50 – 14:20 **Session 1: Molecular chemistry & SOA**

- New-particle formation from nitric acid, sulfuric acid and ammonia under conditions relevant to upper troposphere and aircraft plume – Ida Karppinen (UHEL)
- Molecular scale understanding of multigenerational secondary organic aerosol formation from aromatics – Aliisa Ojala (TUNI)
- Organic aerosol and its drivers in realistic urban air replicas – Aki Nissinen (UEF)
- NO-driven radical propagation enables accretion-product formation in cis-decalin oxidation – Sana Farhoudian (TUNI)
- Previously overlooked contribution of diterpenes to ULVOCs formation in the boreal forest – Chengfeng Liu (UHEL)
- Photochemical reaction of electronically excited SO_2 with ethanol at low temperatures – Emelda Ahongshangbam (UHEL)

14:20 – 14:50 Coffee break (provided)

14:50 – 15:35 **Plenary:** Understanding of the formation of condensable vapors in the atmosphere at the molecular level – Siddharth Iyer (TUNI)

15:35 – 16:35 **Session 2: Society, policy, education & outreach**

- EGU Geoscience Day Finland 2026: Imagining Climate Education, Inclusive Design of Data-Driven Services, and Knowledge Plurality for Good Governance – Ana A. Piedehierro (FMI)
- Total Emission Footprint: A consequence-based framework for communicating the climate and health impacts of atmospheric emissions – Andrea C. Wagner (TUNI)

- Examining the shifting finality of the EU Legal System and its implications for CCU(S) in Finland – Florian Hoppe (VUB)
- ACCC science presented at the Researchers' Night 2026 – Laura Riuttanen (UHEL)

16:35 – 16:45 Breather & buffer

16:45 – 18:00 **Session 3: Forests**

- Effect of Afforestation on Biogenic Aerosol Production in Denmark – Anna Kapp (UEF)
- Ions and local aerosol formation in Finnish forests – Santeri Tuovinen (UHEL)
- More stable than its parts: Landscape diversity decreases the sensitivity of CO_2 fluxes to environmental pressures – Lukas Kohl (UEF)
- Role of bark under drought, light exclusion and altered permeability for carbon and water exchange – Alessandro Zanetti (UHEL)
- Bark water vapor conductance and bark photosynthetic characteristics in boreal tree species – Kristiina Koivu (UHEL)

18:00 – 19:00 Break for hotel check-in

19:00 – 21:00 Conference Dinner

Tuesday, 1 December 2026

09:00 – 09:15 FAAR Award Ceremony

09:15 – 10:00 **Plenary:** Air Pollution in the World's Most Polluted Megacity: Science, urbanization, and the limits of "evidence" – Shahzad Gani (UHEL)

10:00 – 10:30 Coffee break

10:30 – 12:00 **Session 4: Modeling and data-driven methods**

- Improving Earth System Model Representation of Polar Processes – Risto Makkonen (FMI)
- Transfer Learning for Generalised Machine-Learning Based Ozone Soft Sensors Across Urban Monitoring Stations – Hasan Sarwar (UHEL)
- Earth System responses to Aerosol Reductions – Overview of the Regional Aerosol Model Intercomparison Project – Joonas Merikanto (FMI)

- Efficient Kilometre-Scale Climate Downscaling via Physics-Informed Flow Matching – Helmi Toropainen (UHEL)
- Now available: global particle number concentration dataset 2003-2024 for aerosol-cloud interaction studies – Aino Ovaska (UHEL)
- How boreal forest fires modify cloud fields: modelling fire-aerosol-cloud interactions with UCLALES-SALSA – Silvia Margarita Calderón (FMI)

12:00 – 13:30 Lunch

13:30 – 14:15 **Plenary:** Depicting reindeer impact on vegetation and ecosystem processes using national borders as long-term experiments – Henni Ylänne (UEF)

14:15 – 15:45 **Session 5: Marine, coastal & polar**

- Insights into carbon dynamics of a pristine subarctic river in northern fennoscandia – Joonatan Ala-Könni (UHEL)
- Methanesulfonic acid contributes to the first steps of atmospheric nucleation at a coastal high arctic site – Aarni Vaittinen (UHEL)
- Contrasting urban methane and nitrous oxide exchange across temporal and spatial scales in Helsinki – Yihao Liu (UHEL)
- Day–night nitrous oxide flux dynamics in a permafrost mire are driven by diel changes in denitrifier activity – Dhiraj Paul (UEF)
- Spatial heterogeneity of the fluxes of marine volatile organic compounds – first results from spatial campaigns at the coast of Baltic Sea, southwest Finland – Roseline Thakur (UHEL)
- Freshwater input controls ice nucleating particles in Baltic Sea water – André Welti (FMI)

15:45 – 16:15 Coffee break

16:15 – 18:15 Poster Session

Wednesday, 2 December 2026

09:00 – 09:45 **Plenary:** Atmospheric Nano- and Microplastics: Sources and concentrations in Urban Air – Hilkka Timonen (FMI)

09:45 – 10:45 **Session 6: Indoor and Urban Air Quality and Emissions**

- Continuous measurements of VOCs in public buildings reveal contributions from indoor and outdoor sources – Toni Tykkä (FMI)
- TopoFlow: topography-aware pollutant Flow learning for high-resolution air quality prediction – Ammar Kheder (LUT/UHEL)
- Effect of air filtration and air intake height on pollutant concentrations measured indoors – Sami Harni (FMI)
- Experimental quantification of primary and secondary exhaust emissions of two-wheelers – Kuisma Vesisenaho (TUNI)

10:45 – 11:15 Coffee break

11:15 – 12:15 **Session 7: Stressors and Resilience**

- Fading opportunities to mitigate urban heat stress through tree planting – Limei Yang (UHEL)
- Impacts of forest harvests on ecosystem resilience revealed by satellite observations in Finland – Shihan Tang (UHEL)
- Satellite solar-induced fluorescence as an early indicator of physiological ozone stress across environmental conditions – Luka Mamic (FMI)
- The impact of restoration on plant functional traits in nutrient-poor peatlands – Nina Kumpulainen (UEF)

12:15 – 13:30 Lunch

13:30 – 14:15 **Plenary:** Towards remote sensing of forest productivity and carbon stocks – Jon Atherton (UHEL)

14:15 – 14:30 On thermodynamically stable clusters – Markku Kulmala

14:30 – 14:40 Closing Ceremony