



# VIRTUAL WORKSHOP

## INNOVATION IN ATMOSPHERIC MEASUREMENT TECHNIQUES

### Agenda

**Thursday, 2<sup>nd</sup> June 2022**

*All times are in CEST (Central European)*

<b>Opening Session</b>		
09:00	Workshop Introduction & Opening	<b>Jean Sciare</b> The Cyprus Institute
<b>Session#1: International Initiatives and Opportunities (Chair: J. Sciare)</b>		
09:15	Research Infrastructures Services Reinforcing Air Quality Monitoring Capacities in European Urban & Industrial AreaS (RI-URBANS) - connecting ACTRIS to the urban atmosphere	<b>Tuukka Petäjä</b> University of Helsinki
09:30	Pilot Application in Urban Landscapes - Towards integrated city observatories for greenhouse gases (PAUL)	<b>Claudio d'Onofrio</b> Lund University
<b>Session#2: Instrumentation (Chair: TBC)</b>		
09:50	Pushing scientific boundaries needs continuity and excellent tools	<b>J. Valentin Lavric</b> Acoem Australasia
10:00	Calibrated measurements of the aerosol absorption coefficient with a multi-wavelength photo-thermal interferometer	<b>Griša Močnik</b> Haze Instruments d.o.o
10:10	The four-wavelength photoacoustic aerosol absorption spectrometer PAAS-4λ for long-term monitoring of the absorption coefficient in the UV-VIS-NIR spectral range	<b>Franz Martin Schnaiter</b> schnaiTEC GmbH
10:20	Development of RAPID-E+ for in-situ measurements of bacteria, fungi, pollen, and other bioaerosols	<b>Minghui Zhang</b> Plair SA
10:30	AeroTape: a real-time IoT atmospheric particle analyzer	<b>Adrien Reynaud</b> Oberon Sciences
10:40	A new robust UFP measuring device for long-term low-cost ambient monitoring	<b>Martin Fierz</b> Naneos particle solutions
10:50	Harmonized Measurements of Ultrafine Particles in the Atmosphere	<b>Thomas Krinke</b> TSI Inc.
11:00	A new high-resolution Cloud Droplet Analyzer for stationary in-cloud Monitoring	<b>Sergej Sel</b> Palas GmbH
11:10	Particle Habit imaging and polar scattering (PHIPS) probe for measurement of cloud optical and microphysical properties	<b>Emma Järvinen</b> KIT
<b>Coffee break</b>		
<b>Session#3: Reactive Gases (Chair: A. Zahn)</b>		
11:40	A Relaxed Eddy Accumulation (REA) LOPAP-System for Flux Measurements of Nitrous Acid (HONO)	<b>Jörg Kleffmann</b> University of Wuppertal
11:50	The ICAD NO <sub>2</sub> / NO <sub>x</sub> instrument: calibration free in-situ measurements of trace gases for atmospheric and emission studies	<b>Denis Pöhler</b> Airyx GmbH
12:00	A new instrument for in-situ HONO measurements by iterative cavity enhanced DOAS	<b>Johannes Lampel</b> Airyx GmbH
12:10	New solution for simultaneous monitoring of greenhouse gases and air pollutants with extremely high precision	<b>Morten Hundt</b> MIRO Analytical AG
12:20	Ammonia dry deposition measurements using two new instruments.	<b>Arjan Hensen</b> TNO
<b>Lunch break</b>		

<b>Session#4: Aerosols (Chair: U. Bundke)</b>		
13:20	Monitoring the Spatial aerosol distribution of volcanic ashes and Sahara dust on La Palma Island	<b>Ann-Kathrin Goßmann</b> Palas GmbH
13:30	Cutting-edge technologies for research in aerosols and gases in urban air quality (TIGAS-CM PROJECT)	<b>Begoña Artiñano</b> CIEMAT
13:40	Long-term & high-time resolution monitoring of desert dust PM concentration using an aerosol absorption photometer	<b>Michael Pikridas</b> The Cyprus Institute
<b>Session#5: Greenhouse Gases (Chair: A. Vermeulen)</b>		
13:50	Quantifying CH <sub>4</sub> emissions from in-situ measurements and comparison with national emission inventory results	<b>Yunsong Liu</b> LSCE
14:00	Vertical profile of greenhouse gases (CO <sub>2</sub> , CH <sub>4</sub> , CO, N <sub>2</sub> O, H <sub>2</sub> O) from surface up to 35 km with Aircore: long-term monitoring program at Trainou, France	<b>Julien Moyé</b> LSCE
14:10	Characterizing regional CH <sub>4</sub> emissions from the oil and gas sector using non-methane hydrocarbons	<b>Emeric Germain-Piaulenne</b> The Cyprus Institute
<b>Session#6: Remote sensing (Chair: E. Saltikoff)</b>		
14:20	Retrieving Vertically Resolved Cloud Condensation Nuclei Concentrations from Spaceborne Lidar measurements	<b>Piyushkumar Patel</b> Jet Propulsion Laboratory
14:30	The NO <sub>2</sub> camera: A spectral imager for mapping urban pollution	<b>Emmanuel Dekemper</b> BIRA-IASB
14:40	The SKYSPEC instrument: Atmospheric monitoring with passive DOAS remote sensing	<b>Jan-Lukas Tirpitz</b> Airyx GmbH
14:50	The GRASP-SAS High-resolution Air Quality product	<b>Richard Kleidman</b> AirPhoton Inc
<b>Coffee break</b>		
<b>Session#7: Mass Spectrometry (Chair: T. Petäjä)</b>		
15:20	Karsa multi ion chemical ionization inlet (MION2) for ultrasensitive trace vapor detection	<b>Juha Kangasluoma</b> Karsa Ltd
15:30	Performance of a New Higher-Resolution Aerosol Chemical Speciation Monitor for Long-Term Measurements of Non-Refractory Aerosol	<b>Benjamin Nault</b> Aerodyne Research Inc
15:40	Versatile chemical ionization time of flight mass spectrometer for detecting organic and inorganic trace gases	<b>Matthieu Riva</b> Tofwerk
15:50	Thermo desorption – multi-scheme chemical ionization inlet – Mass Spectrometer for Atmospheric precursor and security research	<b>Tuija Jokinen</b> The Cyprus Institute
<b>Session#8: Airborne (Chair: V. Thouret)</b>		
16:00	The new multi-instrument payload onboard the IAGOS-CARIBIC Airbus A350	<b>Andreas Zahn</b> KIT
16:10	Profiling mineral dust with UAV-based in-situ instrumentation & ground-based in-situ and remote sensing instrumentation (Cyprus Fall campaign 2021)	<b>Maria Kezoudi</b> The Cyprus Institute
16:20	Design of innovative modular multi-species balloon-borne sampling platform in the Parisian sky	<b>Yaël Bourgeois</b> LSCE
16:30	Recent Advances at Brechtel MFG in UAS-deployable aerosol instruments	<b>Fred Brechtel</b> Brechtel Manufacturing Inc.
<b>Session#9: Sensors (Chair: G. Biskos)</b>		
16:40	Development and assessment of “mid-cost” sensors for urban monitoring network	<b>Olivier Laurent</b> LSCE
16:50	Challenges associated with using FIGARO TGS 2611-E00 semi-conductor-based sensors to derive methane mole fraction	<b>Adil Shah</b> LSCE
17:00	VAISALA AQT530 sensors as a tool in comprehensive Air Quality Monitoring	<b>Hilkka Timonen</b> FMI
17:10	Field Performance Evaluation of Low-cost Air Quality Sensors	<b>R. Papaconstantinou</b> The Cyprus Institute
<b>End of the Innovation Workshop</b>		