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PRELIMINARY PROGRAM

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PRELIMINARY PROGRAM

GENERAL INFORMATION

CONFERENCE OVERVIEW

One of our most popular specialty conferences, the Air Quality Measurement Methods and Technology Conference provides extensive coverage of all aspects of air measurement methodologies including associated quality assurance protocols and how to use and interpret data.

Sessions will also focus on current hot topics including emerging contaminants such as PFAS, low-cost sensors, next generation emissions monitoring (NGEM), and airborne measurements to assess impacts from wildfires.

Each day of the virtual conference will begin at 12:00 pm Eastern Time/9:00 am Pacific Time. After all speakers have presented, the sessions will end with a group question and answer period.

CONFERENCE COMMITTEE

Conference Chair:
Eric Winegar, Exponent

Technical Program Committee:
Sara Head, Yorke Engineering
Ian MacGregor, Battelle
Ray Merrill, U.S. EPA

REGISTRATION

Register online at www.awma.org/measurements.

Registration includes access to all live keynotes, panels, and presentations offered online during the conference, plus recordings of all of the presentations online for three months following the conference.

Online registrants will receive a confirmation and receipt, which they can access at any time by logging into their account. Your registration will not be processed without payment.

A few days prior to the conference, registrants will receive instructions on how to access the links for the virtual conference.

CONFERENCE PROCEEDINGS/ON DEMAND ACCESS

Conference proceedings will include recordings of the live sessions and slides from presenters who have provided permission. The online proceedings will be accessible from the virtual conference website for three months following the conference. Attendees will be notified when the recordings and slides have been posted.

CONTINUING EDUCATION UNITS

Conference attendees may be eligible for continuing education credits and can apply to receive a Certificate of Participation for the sessions attended. For more information, please contact Gloria Henning at +1-412-904-6021 or glhenning@awma.org.

ABOUT THE AIR & WASTE MANAGEMENT ASSOCIATION

A&WMA is a non-profit, nonpartisan professional organization that enhances knowledge and expertise by providing a neutral forum for technology exchange, professional development, networking opportunities, public education, and outreach to more than 5,000 environmental professionals in 65 countries. A&WMA also promotes global environmental responsibility and increases the effectiveness of organizations to make critical decisions that benefit society. For more information, please visit **www.awma.org.**

TECHNICAL PROGRAM – Tuesday, May 11

OPENING KEYNOTE PRESENTATION

12:00 pm – 1:00 pm ET (9:00 am – 10:00 am PT)

Opening Welcome
Brian Bunger, A&WMA President

Conference Overview and Introduction
Eric Winegar, Exponent, Conference Chair; Ray Merrill, U.S. EPA, Technical Program Committee

How Are Air Measurement Methods and Technologies Keeping Up with Environmental Priorities?
Lara P. Phelps, Director, Air Methods and Characterization Division, U.S. EPA


Lara P. Phelps

SESSION 1: ADVANCES IN CONTINUOUS AMBIENT AIR MONITORING

1:00 pm – 2:30 pm ET (10:00 am – 11:30 am PT)

Chair: Ian MacGregor, Battelle

ME14
Evaluation of Continuous XRF for Metals Monitoring
Josephine Lee, Jacobs Engineering, Portland, OR

ME33
Real-time ppb & ppt HAPS in Ambient Air by FTIR
Martin L. Spartz, Kelly McPartland, Max Analytical Technologies, East Windsor, CT

ME20
Trans-continental VOC Emissions in China Revealed by Mobile Mass Spectrometry
Abigail Koss, Tofwerk USA; Wen Tan , Liang Zhu, Tofwerk China

2:30 pm – 2:45 pm ET
Break

SESSION 2: TOXICS AND PRECURSORS — PROGRESS AND INNOVATION

2:45 pm – 4:15 pm ET (11:45 am – 1:15 pm PT)

Chair: Ian MacGregor, Battelle

ME28
Agilent PAMS AutoGC Data: Review and Validation of 2019 Data
Carol J. Meyer, Orsat, LLC, Pasadena, TX; Adam Arnold, Utah Department of Environmental Quality, Salt Lake City, UT; Khin Sann Thaung, DC Department of Energy and Environment, Washington, DC

ME39
Statistical Evaluation and Quality of Ceilometer Mixing Height Measurements
Kenneth H. Underwood, David Bush, David Yoho, T&B Systems, Valencia, CA

ME16
Applying Synchronous SIM/Scan MS to the Measurement of Ethylene Oxide in Ambient Air
Heidi Hayes, Diane Benton, Eurofins Air Toxics LLC, Folsom, CA

PRELIMINARY PROGRAM

TECHNICAL PROGRAM – Wednesday, May 12

SESSION 3: ADVANCED FENCELINE AND FUGITIVE EMISSION MONITORING

12:00 pm – 2:00 pm ET (9:00 am – 11:00 am PT)

Co-Chairs: Ray Merrill and Ned Shappley, U.S. EPA

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ME21
Next Generation Tunable Diode Laser (TDL) Analyzer Utilizing Near-IR and Interband Cascade Mid-IR Wavelengths for Source Level Emission Monitoring
Tim Kuiken, M&C TechGroup North America, Inc., Ventura, CA

ME31
Laser Dispersion Spectroscopy - Next Generation Emissions Monitoring
Sophie Purser, MIRICO Ltd, Harwell, Didcot, UK

ME03
Comparison of PTR-TOF-MS Technology Strategies for Sampling and Quantitation of HRVOC and OHAP Including Odor Allocation Multivariate Analysis
Peter G. Zemek, Steven E. Yuchs, Arthur Dean, Montrose Air Quality Services, LLC, Irvine, CA

ME17
Single-Photon Lidar Gas Imagers for Low Cost and Continuous Methane Emission Monitoring
Murray Reed, James Titchener, Alex Dunning, Xiao Ai, QLM Technology Ltd, Bristol, UK

2:00 pm – 2:15 pm ET
Break

SESSION 4: SENSORS FOR FENCELINE AND FUGITIVE MEASUREMENTS

2:15 pm - 3:45 pm ET (11:15 am – 12:45 pm PT)

Co-Chairs: Ray Merrill and Ned Shappley, U.S. EPA

ME41
Monitoring Data Quality of a Mobile Air Quality Sensing Network Using Regulatory Reference Stations
Brian LaFranchi, Matthew Chow, Cassandra Trickett, Caroline Parworth, Bassam Dgheim, Paul Solomon, Nicole Goebel, Todd Langland, Kate Hu, Melissa Lunden, Aclima Inc., San Francisco, CA

ME26
Hybrid Air Monitoring Network: Sensors, Mid-Tier, Reference, and Mobile
Michael Ogletree, Department of Public Health & Environment, Environmental Quality Division, City and County of Denver, CO

ME34
Evaluation of a New Low-Cost Particle Sensor as an IoT Device for Outdoor Particulate Matter Monitoring
Abi Roberts, Kathryn Van Valkinburgh, Christopher Post, Elena Mikhailova John Pearce, Andrew R. Metcalf, Clemson University, Anderson, SC

3:45 pm – 4:00 pm ET
Break

Virtual Networking Social for all attendees

4:00 pm - 5:00 pm ET (1:00 pm – 2:00 pm PT)

Join fellow presenters and attendees for a video networking social to connect, chat, and discuss the conference topics through Zoom.

TECHNICAL PROGRAM – Thursday, May 13

SESSION 5: SENSOR EVALUATION — METHODS AND RESULTS

12:00 pm – 2:00 pm ET (9:00 am – 11:00 am PT)

Chair: Eric Winegar, Exponent

ME19
Field Evaluation of a Novel Low-Cost Outdoor PM Monitor
Dereck Dasrath, Andrew Lasch, Steve Boehm, Sreenath Avula , TSI Incorporated, Shoreview, MN

ME40
Performance Assessment of Sensors in a Mobile Platform
Caroline Parworth, Bassam Dgheim, Brian LaFranchi, Melissa Lunden, Matthew Chow, Paul Solomon, Todd Langland, Aclima Inc., San Francisco, CA

ME59
Development of an ASTM Standard for the Evaluation of Air Quality Sensors
Geoff Henshaw, Aeroqual Ltd, Auckland, New Zealand

ME60
What's Important for Air Sensor Performance: Where Have We Been and Where Are We Going?
Tim Dye, TD Environmental, Petaluma, CA

2:00 pm – 2:15 pm ET
Break

SESSION 6: ENVIRONMENTAL JUSTICE MONITORING EFFORTS — WHERE ARE WE NOW?

2:15 pm – 4:00 pm ET (11:15 am – 1:00 pm PT)

Chair: Eric Winegar, Exponent

ME37
Advancing Air Quality Monitoring in Environmental Justice Communities of the South Coast Air Basin, CA: Overview of Approaches, Technologies, and Community Engagement
Payam Pakbin, Faraz Ahangar, Sina Hasheminassab, Mohammad Sowlat, Steven Boddeker, Julia Montoya-Aguilera, Avi Lavi, Christopher Lim, Andrea Polidori, Jason Low, South Coast Air Quality Management District, Diamond Bar, CA

ME29
Continuous Monitoring Of Polycyclic Aromatic Hydrocarbons Using Automatic Thermal Desorption-gas Chromatography
Omar Guerra, Franck Amiet, Jean-Philippe Amiet, Damien Bazin, Chromatotec, Saint- Antoine, France

ME53
Localized Air Quality Assessment and Source Apportionment Using A Community Deployed Low Cost Sensor Network Blended with a Real Time Air Quality Model
Justin Bandoro, Kurt Richman, Shari Libicki, Ramboll, San Francisco, CA

4:00 pm ET
Conference Wrap-up Discussion

VIRTUAL EXHIBITORS

Ambilabs
www.ambilabs.com

Ambilabs specializes in supplying innovative ambient air monitoring technology solutions. Our experienced staff provide instrumentation, systems and solutions for obtaining valid, accurate, and precise air quality data. We directly supply, install, and train on a broad range of gas and particulate monitoring instrumentation for our customers in Canada, USA, and the Caribbean. Please visit our booth to discuss the latest "Airpointer" which is an EPA FEM & FRM designated air monitoring "station in a suitcase", and also the new AqMesh suite of pollutant monitoring sensors packaged together into a tiny pod that is no larger than a football. Also ask about our latest "2WIN" high precision particulate/haze/visibility monitoring sensor solution.

American Ecotech
www.americanecotech.com

American Ecotech specializes in supplying state of the art instruments measuring specific gases, aerosols, and particulate airborne matter, including gas analyzers to measure NOx, CO, SO2, CO2, NH3, H2S, NOy, and/or ozone. We supply digital dataloggers, and advanced remote maintenance software for automated field data validation and reporting.

Chromatotec Group
www.chromatotec.com

A family-owned independent company, Chromatotec Group is specialized in designing, manufacturing and selling online gas and liquid analyzers, exclusively made in France. With offices in China and USA, the group is historically based in Gironde (South-West of France) since its creation in 1986. Chromatotec Group is known worldwide for its leading-edge technology. Based on chromatography principle, our analyzers are focused on VOCs, Sulphur compounds and odor monitoring. We produce also generators for chromatography and online calibration.
These technologies allow tracking individual compounds at ppt/ppb/ppm concentration levels.

Cooper Environmental / SCI
www.cooperenvironmental.com

Cooper Environmental is the recognized global leader in metals measurement technology. The company was the first to develop and commercialize near real time measurement of metals using X-ray fluorescence (XRF). Its ambient metals monitor, the Xact 625i, has demonstrated accuracy in numerous studies and peer reviewed journal articles and it is used by researchers, environmental agencies and metal producing industries throughout the world. In addition to its ambient metals monitor the company also makes instruments to measure metals in smoke stacks and water and it offers a complete line of sensor based measurements (Sold under the Sailbri Cooper Inc brand name) for criteria pollutants (SO2, CO, O3, NO2, PM10 and PM2.5), hazardous gases (HCl, Cl2, H2S, HF, NH3) and total VOCs.

Hi-Q Environmental Products Company, Inc.
www.hi-q.net

HI-Q Environmental Products Company (HI-Q.net) has been a leading manufacturer of Air Sampling & Radiation Monitoring Equipment, Systems and Services to the nuclear and environmental monitoring industries since 1973. HI-Q's product line ranges from complete stack sampling systems to complex ambient air sampling stations. HI-Q's product catalog includes: High & Low Volume continuous duty TSP, PM-10 and PM-2.5 Air Samplers with manual or automatic flow control.

TSI, Inc.
www.tsi.com

TSI, a world leader in particle measurements, offers a variety of air quality monitors for real-time, direct-reading results. The DustTrak™ Environmental Monitor measures PM1, PM2.5, respirable, PM10 and total PM size fractions, providing near-reference quality data. In addition, TSI offers ultrafine particle monitors and a new, low cost BlueSky™ Air Quality Monitor.

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ENMET
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ENMET manufactures a wide array of environmental and industrial health and safety monitoring instruments. Our new GC based products offer a new cost effective approach to benzene trace level detection (sub ppb) at the Fenceline and in the workplace with the ability to provide specific gas analysis in complex mixtures. **www.enmet.com**

PICARRO

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Picarro is advancing how we monitor and interpret air quality with CRDS gas analysis systems and solutions to measure GHG concentrations, trace gases and stable isotopes at ppb or better resolution. Picarro's industrial solutions include advanced methane leak detection and Ethylene Oxide monitoring indoors, at the stack or fenceline. **www.picarro.com**

TELEDYNE API
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Teledyne API offers a complete line of Air Quality Monitoring instrumentation, which complies with the US Environmental Protection Agency, European Union, and other requirements for the measurement of ambient air quality. Utilizing proven measurement principles, we also offer instruments for Continuous Emissions Monitoring and a number of other applications. **www.teledyne-api.com**

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