

# *Indoor Exposure to Fine PM... Workshop*

## speakers and bios

### *April 14. Sources of Indoor Fine Particulate Matter*

**Cesunica Ivey, PhD**, is an Assistant Professor in Chemical and Environmental Engineering at the University of California, Riverside and Principal Investigator of the Air Quality Modeling and Exposure Laboratory. She is a research affiliate of the College of Engineering Center for Environmental Research and Technology, and a member of a multidisciplinary collaborative research effort called the BREATHE (Bridging Regional Ecology, Aerosolized Toxins, and Health Effects) Center. Dr. Ivey was previously a postdoctoral researcher in the Department of Physics at the University of Nevada Reno and a visiting scientist at NOAA's Geophysical Fluid Dynamics Laboratory. Her research interests include source apportionment of fine particulate matter, regional air quality modeling for health applications, exposure monitoring, and environmental justice. She earned a PhD Environmental Engineering from the Georgia Institute of Technology.

**Brent Stephens, PhD**, is a Professor and Department Chair in the Department of Civil, Architectural, and Environmental Engineering at Illinois Institute of Technology (IIT). Dr. Stephens is also the Director of Architectural Engineering and Environmental Engineering and leads the Built Environment Research Group at IIT. He is an expert in the fate and transport of indoor pollutants, building energy and environmental measurements, HVAC filtration, human exposure assessment, building energy simulation, and energy efficient building design. His recent research projects include improving and applying methods to measure the infiltration of outdoor particulate matter into homes; measuring the in-situ particle removal efficiency of HVAC filters in real environments; and developing inexpensive, open source devices for measuring and recording long-term indoor environmental and building operational data. Dr. Stephens earned an MSE in Environmental and Water Resources Engineering and a PhD in Civil Engineering from The University of Texas at Austin.

**Delphine Farmer, PhD**, is an Associate Professor of Atmospheric Chemistry at Colorado State University. Dr. Farmer's research focuses on outdoor atmospheric and indoor chemistry with an emphasis on understanding the sources and sinks of reactive trace gases and particles and their effects on climate, ecosystems, and human health. Her recent work has focused on air chemistry in residential environments. Dr. Farmer was a co-lead of the House Observations of Microbial and Environmental Chemistry study, and she will co-lead the upcoming Chemical Assessment of Surfaces and Air indoor study. She is currently a committee member on the National Academies *Emerging Science on Indoor Chemistry* study. Dr. Farmer earned an MS and a PhD in Chemistry from the University of California, Berkeley.

**Marina Vance, PhD**, is an Assistant Professor and McLagan Family Faculty Fellow in the Department of Mechanical Engineering at University of Colorado, Boulder; and holds a courtesy appointment in the university's Environmental Engineering program. Her research is focused on air quality, particularly on measuring emissions and understanding the dynamics of aerosols in the context of ambient and indoor air quality. She is a co-lead of the House Observations of Microbial and Environmental Chemistry (HOMEChem) research initiative, which incorporated measurements from over 20 research groups from 13 universities to identify the most important aspects of the chemistry that controls the indoor environment, and she will co-lead the upcoming Chemical Assessment of Surfaces and Air (CASA) study. Dr. Vance earned BS in Sanitation and Environmental Engineering and an MS in Environmental Engineering from the Universidade Federal de Santa Catarina (Brazil); and a PhD in Civil and Environmental Engineering from Virginia Tech.

**Michael Waring, PhD**, is a Professor and Department Head of Civil, Architectural, and Environmental Engineering at Drexel University. His research exists at the intersection of environmental and architectural engineering. It focuses on indoor air quality and exposure, indoor aerosol and chemical modeling, and sustainable buildings. He believes that making buildings function more effectively is imperative to solving many societal challenges. Dr. Waring has received the NSF CAREER Award, as well as the New Investigator Award from the American Society for Heating, Refrigeration, and Air-conditioning Engineers. Dr. Waring earned a BA in English and Economics, a BS in Architectural Engineering, an MS in Environmental and Water Resources Engineering, and a PhD in Civil Engineering, all from the University of Texas at Austin.

**Linsey Marr, PhD**, is the Charles P. Lunsford Professor of Civil and Environmental Engineering at Virginia Tech. Dr. Marr's research interests include characterizing the emissions, fate, and transport of air pollutants in order to provide the scientific basis for improving air quality and health. She also conducts research on airborne transmission of infectious diseases. Dr. Marr is a member of the National Academies' Board on Environmental Science and Toxicology and recently served on the planning committee for the *Airborne Transmission of SARS-CoV-2: A Virtual Workshop from the Environmental Health Matters Initiative*. In 2013, she received a New Innovator Award from the director of the National Institutes of Health. Dr. Marr earned a BS in Engineering Science from Harvard University and a PhD in Environmental Engineering from the University of California, Berkeley.

**Andrea Ferro, PhD**, is a Professor in the Department of Civil and Environmental Engineering at Clarkson University in Potsdam, NY. Dr. Ferro's technical expertise is focused on indoor air quality and human exposure to particulate pollutants. She has also worked in the private industry, engineering consulting and non-profit sectors. The overall goal of her work is to improve human health by improving air quality through source control, ventilation and purification strategies, education, and regulatory policy. Dr. Ferro teaches undergraduate and graduate courses in environmental engineering, sustainable development, air pollution, and human exposure analysis. She is the immediate past president of the American Association for Aerosol Research. Dr. Ferro earned an MS and PhD from Stanford University.