



**4<sup>th</sup> Annual Workshop on Aerosol Science and Technology**  
**“Summer School in Winter”**  
**January 15 to 16, 2026**  
**University of Miami**  
**Program Agenda**

Time	Title	Speaker/Moderator
<b><u>1/15/2026, Thursday</u></b>		
<b><u>Frost Institute of Chemistry and Molecular Science</u></b>		
<b><u>1201 Memorial Dr, Coral Gables, FL 33146</u></b>		
8:00 to 8:40	Breakfast	
8:40 to 8:45	Opening Remarks	
<b>Session 1: Tutorials on Aerosol Science and Technology</b>		
8:45 to 9:35	Tutorial I: Portable and wearable sensors: design and applications	Pratim Biswas
9:45 to 10:35	Tutorial II: Microplastics and PFAS: sources, characterizations, and toxicity	Virender Sharma
10:45 to 11:35	Tutorial III: Modeling the climate impact of atmospheric aerosols	Siyuan Wang
11:35 to 13:30	Lunch	
<b>Session 2: Particle Instrument Hands-on Demonstration</b>		Chang-Yu Wu Yang Wang
13:30 to 14:00	Flash Talks from corporate attendees	
14:00 to 17:00	Hands-on Demonstration: Malvern Panalytical, Netzsch, Aerosol Dynamics Inc., QuantAQ, TSI Inc., OpenCPC, Palas GmbH	
17:00 to 17:20	Group Picture	
<b><u>1/16/2026, Friday</u></b>		
<b><u>Shalala Student Center</u></b>		
<b><u>1330 Miller Dr, Coral Gables, FL 33146</u></b>		
8:00 to 9:00	Breakfast	
<b>Session 3.a: Malvern Panalytical - Netzsch Special Session on Advanced Materials Characterizations (304 Activities Room North)</b>		Samiul Amin
9:00 to 10:00	Characterizing nanoparticles using nanoparticle tracking analysis, dynamic light scattering, and electrophoretic light scattering: studying size, zeta potential, and concentration	Ragy Ragheb
10:00 to 10:30	Overview of surface area and density measurement technology used in pharmaceutical manufacturing	Jack Saad
10:30 to 10:45	Q&A and discussion	
10:45 to 11:00	Break	



11:00 to 12:00	Using rheology to characterize sprayable materials to eliminate sedimentation, optimize atomization and improve absorption	Philip Rolfe
<b>Session 3.b: Fire Emissions and Public Health (306 Activities Room South)</b>		Chang-Yu Wu Trishul Siddharthan
9:00 to 9:30	Epidemiology and air pollution	Jon Samet
9:30 to 10:00	Air quality and firefighter health	Erin Kobetz
10:00 to 10:15	Health effects of aerosols from fire emissions	Philip Demokritou
10:15 to 10:30	Air quality, sleep, and respiratory health	Trishul Siddharthan
10:15 to 10:30	Fire emission and planning from prescribed burns	Holly Nowell
10:30 to 11:30	Panel Discussion moderated by Chang-Yu Wu and Trishul Siddharthan	
11:30 to 14:00	Lunch and Poster Session (In-person Only)	
<b>Session 4.a: Nanoparticle Technology: Synthesis, Characterization and Applications (304 Activities Room North)</b>		Samiul Amin Dibyendu Mukherjee
14:00 to 14:30	Advanced characterization of functional nanomaterials	Aristide Dogariu
14:30 to 15:00	Industrial applications of nanomaterials	Kristen Prinn
15:00 to 15:30	Industrial synthesis of nanoparticles	Ashish Rai
15:30 to 15:45	Environmental impact of functional nanomaterials	Delia Shelton
15:45 to 16:30	Panel Discussion moderated by Samiul Amin and Dibyendu Mukherjee	
<b>Session 4.b: Coastal Aerosols and Novel Observation Techniques (306 Activities Room South)</b>		Cassandra Gaston Yang Wang
14:00 to 14:30	Harmful algal blooms and coastal aerosols	Andrew Ault
14:30 to 15:00	Exploring aerosols and aerosol-cloud interactions with NASA data	Lauren Zamora
15:00 to 15:15	Coastal water pollution and implications on air quality	Helena Solo-Gabriele
15:15 to 15:30	Air pollution in Miami – a community perspective	Camilo Mejia
15:30 to 15:45	Standard methods for quantifying microplastics	Sungyoon Jung
15:45 to 16:30	Panel Discussion moderated by Cassandra Gaston and Yang Wang	
16:30	Closing	

### Speakers and Workshop Convenors:

**Samiul Amin**, Professor of Practice of the Department of Chemical, Environmental and Materials Engineering, University of Miami

**Andrew Ault**, Professor of Chemistry, University of Michigan

**Pratim Biswas**, Professor of the Department of Chemical, Environmental and Materials Engineering & Department of Atmospheric Science, Member of the National Academy of Engineering, University of Miami



**Philip Demokritou**, Henry Rutgers Chair and Professor, Department of Nanoscience and Environmental Bioengineering, Rutgers School of Public Health

**Aristide Dogariu**, UCF Trustee Chair Pegasus Professor, Optics & Photonics, University of Central Florida

**Helena Solo-Gabriele**, Professor of the Department of Chemical, Environmental and Materials Engineering, University of Miami

**Cassandra Gaston**, Associate Professor of the Department of Atmospheric Sciences, University of Miami

**Erin Kobetz**, Vice President for Health Promotion and Chief Wellbeing Officer, John K. and Judy H. Schulte Senior Endowed Chair in Cancer Research, Miller School of Medicine, University of Miami

**Sungyoon Jung**, Assistant Professor of the Department of Environmental Engineering Sciences, University of Florida

**Jiayu Li**, Assistant Professor of the Department of Mechanical and Aerospace Engineering, University of Miami

**Camilo Mejia**, Senior Director of Policy & Advocacy, Catalyst Miami

**Dibyendu Mukherjee**, Associate Professor of Practice of the Department of Chemical, Environmental and Materials Engineering, University of Miami

**Holly Nowell**, Smoke Science Program Director, Tall Timbers Research Station and Land Conservancy

**Kristen Prinn**, Principal Scientist Allergan/Abbvie

**Ragy Ragheb**, Senior Application Specialist, Malvern Panalytical Inc.

**Ashish Rai**, Senior R&D Manager, Cabot Corporation

**Philip Rolfe**, Rheology Product Manager & Sales, Netsch

**Jack Saad**, Lab Manager, Malvern Panalytical Inc.

**Jon Samet**, Professor of Department of Environmental & Occupational Health and Department of Epidemiology, Colorado School of Public Health

**Delia Shelton**, Assistant Professor, Department of Biology, University of Miami

**Trishul Siddharthan**, Associate Professor, Pulmonary, Critical Care and Sleep Medicine, Miller School of Medicine, University of Miami

**Virender Sharma**, Professor of Practice of the Department of Chemical, Environmental and Materials Engineering, University of Miami

**Siyan Wang**, Associate Professor of the Department of Atmospheric Sciences, University of Miami



**Yang Wang**, Assistant Professor of the Department of Chemical, Environmental and Materials Engineering, University of Miami

**Chang-Yu Wu**, Professor and Chair of the Department of Chemical, Environmental and Materials Engineering, University of Miami

**Lauren Zamora**, Associate Research Scientist at the Earth System Science Interdisciplinary Center (ESSIC), University of Maryland

**Paquita Zuidema**, Professor and Chair of the Department of Atmospheric Sciences, University of Miami