

**4th International Smoke Symposium (ISS4)**  
**Leigh Perkins Conservation Education Center - Tallahassee, FL**  
**March 23-27, 2026**



Presented by International Association of Wildland Fire

Monday, March 23			
8:00 - 9:00	Shuttle provided from Tallahassee (Springhill Suites, Hampton Inn, Hilton Garden Inn)		
8:00 - 5:00	Registration desk hours		
WORKSHOPS			
	Room A	Room B	Room C
9:00 - 11:00	<b>Strategic Communication for Fire Smoke Scientists and Technical Experts</b> Alex Griffith, COMPASS Science Communication	<b>Prescribed Fire and Wildfire Exceptional Events Resources and Tools</b> (remote participation available) James Boylan, Georgia Department of Natural Resources; Rick Gillam, U.S. EPA Region 4, Mary Uhl, Western States Air Resources Council (WESTAR)	<b>FireSat for Smoke: Practical Tools, Early Insights, and Research Opportunities</b> (remote participation available) Ann Kapusta, Earth Fire Alliance and Dr. Michael Falkowski
11:00 - 1:00			
1:00 - 2:00	Lunch (provided)		
1:00 - 2:00	Shuttle provided to and from Tallahassee (Springhill Suites, Hampton Inn, Hilton Garden Inn)		
WORKSHOPS			
	Room A	Room B	Room C
2:00 - 6:00	<b>NASA Satellite Observations and Tools for Fire and Smoke Monitoring</b> Aaron Naeger, NASA Marshall Space Flight Center; Carl Malings (MSU, NASA GSFC) Kristina Pistone (BAERI, NASA ARC) Caterina Mogno (UMBC, NASA GSFC)	<b>Wildland Fire Smoke Modeling using BlueSky Playground</b> Marlin E Martinez, University of Washington, Susan M. O'Neill, Sim Larkin, USDA Forest Service	<b>Southeast Prescribed Fire and Air Quality Summit Meeting</b> (invite only)
6:00	Shuttle provided to Tallahassee (Springhill Suites, Hampton Inn, Hilton Garden Inn)		
Tuesday, March 24			
7:30 - 8:30	Shuttle provided from Tallahassee (Springhill Suites, Hampton Inn, Hilton Garden Inn)		
7:30 - 5:00	Registration desk hours		
8:30 - 9:30	<b>Opening Remarks and General Session</b>		
9:30 - 10:00	Networking Break with exhibitors and sponsors		
	Room A	Room B	Room C
	<b>Smoke Modeling &amp; Observations</b>	<b>Smoke Management and Communication</b>	<b>Special Session</b>
	Moderator:	Moderator:	Moderator:
10:10 - 10:30	Mass and Elemental Composition of Wildfire Emissions Deposition Across a 40 km Downwind Transect* Facundo Scordo	Smoke Science Resources for Extension and Outreach to Support Local Communities David Godwin	The Albany Pilot Project: A Model for Fire, Air Quality, and Multi-Level Collaboration Holly Nowell, James Boylan
10:30 - 10:50	Population Exposure and Health Impacts of Prescribed Burns in California Rashmi Rajput	Understanding Communication Preferences Among Susceptible Populations During Smoke Events: A Case Study from Eastern Oregon* William Toombs	
10:50 - 11:10	PAHs in Smoke from Various WUI Fire Fuels: Cars, Trees, And Construction Materials Aika Davis	Looking at Wildland Fire Smoke Risk Communication Research* Jess Downey	
11:10 - 11:30	Addressing Non-Negligible Uncertainties in Non-Methane Organic Compound Emission Factors is Needed for Improving Smoke Impact Assessments Kelley Barsanti	Misaligned Fire Narratives and Indigenous Realities: Reframing Smoke and Socio-Ecological Resilience in Central India Mohd Amin Khan	Applying Research to Address Peat Fires in Malaysia Adam Watts, Dayang Nur Sakinah Musa

11:30 - 11:50	Metal toxins in wildfire smoke: observations and implications Alexander Honeyman	Comparative Evaluation of MERV 13 Air Filter Performance for Salt Aerosols and Simulated Wildfire Smoke* Nour Elsagan	
11:50 - 12:10	Satellite-Informed Machine Learning Bias Correction of Wildfire Plume Injection Heights Mohammad Astaneh	Prescribed Burn Associations George Jensen	
12:10 - 1:40	<b>Poster Session and Lunch</b> (provided)		
<b>POSTER PRESENTATIONS</b>	Employing Historical Wildfire Growth Data for Characterizing Diurnal Fire Behavior and Smoke Emissions Michael Billmire	Integrated Research Management Team Supporting Coproduction of Wildland Fire Science James Furman	Correlation between meteorological data and fire occurrence in the transitional zone of Ghana Richard Baffour Gyan
	Assessment of national meteorological dispersion forecasts and methods Tim Brown	Reducing human-caused wildfire ignitions using community bye-laws in Ghana Hannah Owusu Tuffour	Baseline Urinary Monohydroxylated PAH Metabolites in Portuguese Wildland Firefighters Before the Firefighting Season* Sandra Lavandeira
	Impact of plume rise parametrization on air quality forecasts for SE Asia biomass burning during 2024* Manas Mohanty	Integrated Fire Management in Afram Headwaters Forest Reserve, Ghana Esther Adjei	Evaluation of EBAM Performance in Low PM2.5 Concentrations and Higher Relative Humidity Environment – Expectations, Data Utility, Recommendations Susan O'Neill
	Development of a unified prescribed fire database and accompanying dashboard for the U.S. Amy Marsha	Wildfire Incidence in Forest and Transitional Zones of Ghana: Local Community Perceptions and Adaptation Strategies Kingsford Owusu Boampong	Field Testing of Air Scrubbers at a Wildfire Incident Command Post Paul Corrigan
	PM2.5 emissions from laboratory burning of southeastern forest fuels Yongqiang Liu	Assessing impacts of climate change and human population growth on forest fire potential in the tropics: Case of the Tain II Forest Reserve in Ghana Eric Osei-Kwarteng	The Latest Annual Prescribed Fire Use Surveys for 2022 and 2023 Peter Lahm
	Calculating daily average PM2.5 emissions using burn authorizations across Florida given vegetation and crop type Hannah Schley	Advancing wildfire smoke exposure science: Field measurements of smoke chemistry at CDPH Alandra Lopez	Challenges of Carbon Monoxide Monitoring using Low Cost Sensors in Wildland Fire Smoke Situations Josh Hall
	Improving Wildfire Preparedness: Lessons from High Schools' Wildfire Club Educational Programs in Ghana Reuben Osei Mensah		
	<b>Smoke Modeling &amp; Observations</b>	<b>Public and Occupational Health Impacts</b>	<b>Remote Sensing: Tools, Insights, Visions</b>
	Moderator:	Moderator:	Moderator:
1:50 - 2:10	Trans-Atlantic smoke transport and air quality impacts of Canadian wildfires in summer 2025* Mark Parrington	Air Pollution Emissions and Public Health Impacts from 2022 Mosquito Wildfire* Bruce Springsteen	Linking Fire Behavior and Smoke Impacts: FireSat's Role in Supporting Air Quality and Health Research Ann Kapusta
2:10 - 2:30	Coupled fire and smoke modeling for prescribed fire applications Sara Brambilla	Characterization of structure fire emissions and effects on exposed populations and firefighters' health* Marta Oliveira	Idealized Numerical Simulations of Prescribed Fires and the Application of a Multistatic Radar Emulator Emma Miller
2:30 - 2:50	Application of a simplified smoke emissions and dispersion model for tracking smoke plumes on a regional scale Mark Schaaf	How Long Can Gaseous Contamination Persist Indoors from Wildland-Urban Interface (WUI) Fire Smoke? Michael Link	Satellite-constrained Evaluation of RRFs-Smoke predicted Wildfire Smoke Vertical Placement and Column Loading for Summer of 2025* Sudheer Bhimireddy
2:50 - 3:10	Uncovering Key Drivers of Prescribed Burn Smoke Impacts Using Air Quality Modeling and Machine Learning Amirhossein Ghajari	Smoke Emissions Tradeoffs in California with Increased Prescribed Fire Activity Kelley Barsanti	Announcing INFLAMES: the Interdisciplinary Network for Fire research from Low Earth Orbit Atmospheric Measurements* Gerbrand Koren
3:10 - 3:40	Networking Break with exhibitors and sponsors		
3:45 - 5:00	<b>General Session Panel: Personnel Smoke Impacts</b>		

5:00 - 7:00	Social reception with exhibitors and sponsors		
7:00	<i>Shuttle provided to Tallahassee</i>		
<b>Wednesday, March 25</b>			
7:30 - 8:30	<i>Shuttle provided from Tallahassee</i>		
7:30 - 5:00	Registration desk open		
8:30 - 9:30	<b>Keynote Session</b> Aaron Naeger, Physical Research Scientist, NASA Marshall Space Flight Center		
9:30 - 10:00	Networking Break with exhibitors and sponsors		
	<b>Smoke Modeling &amp; Observations</b>	<b>Emerging Technologies and Tools</b>	<b>Special Session</b>
	Moderator:	Moderator:	Moderator:
10:10 - 10:30	Towards understanding emission characteristics during wildland-urban interface (WUI) fires* Sayaka Suzuki	Quantifying Emissions from Fuels Commonly found within Wildland Urban Interface Structures Bryce Bathras	How to best communicate about smoke and fires Patrick Merle
10:30 - 10:50	Composition of gases in a longleaf pine diffusion flame Shawn Urbanski	Advancements of smoke asphyxiant modeling in QUIC-Fire Alexander Josephson	
10:50 - 11:10	Understanding Wildfire and Prescribed-Burning Smoke over California using MUSICAvo Wenfu Tang	Parcel-Scale House Fuel Load and Fire Damage Risk Assessment in Wildland Urban Interface Yifei Ding	
11:10 - 11:30	Vegetation Fires and Smoke Pollution Warning and Advisory System, global and European perspective Mikhail Sofiev	Discovering Governing Dynamics of Smoke Plumes and Fire Spread Using Machine Learning-Based Equation Discovery Jhamieka Greenwood	Communicating Wildfire Risk Alex Griffith
11:30 - 11:50	Wildfire Smoke Modelling at Regional and Local Scales: Insights from Sweden and Italy* Ana Isabel Miranda	High spatiotemporal resolution estimates of wildfire smoke exposure with machine learning, low cost sensors, and satellite data Nathan Pavlovic	
11:50 - 1:20	Lunch (provided)		
	<b>Smoke Modeling &amp; Observations</b>	<b>Public and Occupational Health Impacts</b>	<b>Special Session</b>
	Moderator:	Moderator:	Moderator:
1:30-1:50	From Satellite to Machine Learning: Predicting Wildfire Plume Injection Heights across the Western United States Xu Feng	The changing landscape of wildfire smoke exposure in Canada: Analyzing the impact of wildfire smoke on air quality between 2010 – 2023 using CanOSSEM* Naman Paul	Building Smoke-Ready Communities: Strategies for Health, Equity, and Resilience* Heidi Huber-Stearns
1:50 - 2:10	Comparison of Radar-Observed and Simulated Wildland Fire Plume and Ember Transport Jie Sun	The Multiyear Wildfire Smoke Exposure (MultiWiSE) Metrics: Characterizing Episodic PM2.5 Exposure for Studies on Long-Term Health Effects* Stephanie Cleland	
2:10- 2:30	A Multi-Scale Measurement of Fire and Plume Transport Through a Forest Canopy Weixuan Gong	Burning Questions: How Wildfire Smoke Impacts the Brain* Anthony White	
2:30 - 2:50	Fuel Moisture-Driven Variations in Smoke Plume Dynamics Neda Yaghoobian	Bushfire Emissions: Evaluating the Impact on Air Quality and Human Health in the Northern Territory Hafsa Yousuf Nipa	Exceptional Events TBD
2:50 - 3:10	A 2-D, nonhydrostatic, compressible model for fire plume dynamics Branson Starr	Community Preferences for Wildfire Smoke Mitigation and Adaptation Strategies in British Columbia's Wildland-Urban Interface* Dilshani Ranasinghe	
3:10 - 3:40	Networking Break with exhibitors and sponsors		
3:45- 5:00	<b>General Session panel: Modeling</b>		
5:00 - 6:30	Happy Hour with Exhibitors and Sponsors Wagon Ride around Tall Timbers		
6:30	<i>Shuttle provided to Tallahassee</i>		
<b>Thursday, March 26</b>			
7:30 - 8:30	<i>Shuttle provided from Tallahassee</i>		
7:30 - 5:00	Registration desk open		

8:30 - 9:30	<b>Keynote Session: Reading Smoke Signals: Landowner Experience</b> Heather Brasell, Landowner		
9:30 - 10:00	Networking Break with exhibitors and sponsors		
	<b>Emerging technologies and tools</b>	<b>Smoke Management and Communication</b>	<b>Special Session</b>
	Moderator:	Moderator: Jeremy Green	Moderator:
10:00 - 10:20	Guiding Air Quality Monitoring: Field Evaluation of Air Quality Sensors in Southeastern U.S. Tanvir Khan	With Fire Comes Smoke: Aligning Forest Management and Public Health Communications for Air Quality Rachel McIntosh-Kastrinsky/Kayla McCauley	Operational Approaches to Reducing Exposure Hazards on the Fireline* Susan Kidnie
10:20 - 10:40	Incentivizing Decentralized IoT Networks to Enhance Smoke Detector Coverage in the Wildland-Urban Interface* Jyun-Fan Tsai	Event-based insights into resident perceptions of smoke following two prescribed fires in Flagstaff, Arizona* Sarah Devenport	
10:40 - 11:00	Performance Testing of Seven Commercially Available and Research Grade Carbon Monoxide Sensors for Use in Wildland Fire Smoke Situations Josh Hall	The Global Forest Fire Emissions Prediction System (GFFEPS)* Kerry Anderson	
11:00 - 11:20	SMesh: Real-Time Radio Sensor Networks for Prescribed Fire Smoke Management* Jessica Yu	Actionable Evidence from a Comparative Project on Resilience and Responses to Smoke Events Nicholas Perry	TBD
11:20 - 11:40	Ground-based wildfire detection cameras - how well do they work? Gavin Hough	Wildfire Smoke's Role in PM-2.5 and Ozone Concentrations in The Great Lakes Region* Alec Kownacki	<b>Regulatory</b> Improving Fuels and Consumption for Fire Emissions Inventory Nancy French
11:40 - 12:00	Integrated Research Management Team Supporting Coproduction of Wildland Fire Science James Furman	Understanding Lightning Driven Fires and Community Smoke Risk Along Zimbabwes Great Dyke Corridor* Willson Chimwedzi	Effect of season of fire on fuel consumption and estimated PM2.5 emissions in a southeastern U.S. pine savanna Kevin Robertson
12:00 - 12:20	Smoke research and tools at the U. S. Forest Service Aaron Piña	Prescribed Fire and Air Quality Southeastern Perspectives Jennifer Fawcett	Changes in Wildland Fire Emissions Estimation Methods and Trends in the US EPA National Emissions Inventory James Beidler
12:20 - 1:20	Lunch (provided)		
	<b>Mitigation and Science: Reaching a balance moving forward</b>	<b>Smoke Management and Communication</b>	<b>Smoke Modeling &amp; Observations</b>
	Moderator:	Moderator:	Moderator:
1:30 - 1:50	The Challenge of BIG Prescribed Fires Peter Lahm	Evaluating Indoor Air Cleaning Effectiveness during Wildland-Urban Interface Fire Events: Insights from a Controlled Residential Study Nathan Lima	Evaluating and improving modeled smoke vertical distribution and surface concentrations for the 2020 western US wildfires* Mackenzie Arnold
1:50 - 2:10	Computing monthly average PM <sub>2.5</sub> for ecounits in California to assess the direct health benefits of future potential limiting of wildfire smoke impacts Tim Brown (forAzimeh Zare-Harofteh)	Can mechanical fuel treatments and prescribed fires provide long-term air quality benefits by reducing future smoke emissions? Shawn Urbanski	Pathogenic fungi from wildfire smoke common across regions and positive for infectious disease in animal models* Leda Kobziar
2:10 - 2:30	Development of Weather Scenarios That May Result in Smoke-Induced Fog Matthew Pace	Integrating Public Health into Upstream Wildfire Management Savannah D'Evelyn/Maya Puggarana	Weather Tools for Smoke Forecasting* Joseph Charney
2:30 - 2:50	Preventing Catastrophic Wildfires: Annual Grid Inspection and Maintenance Plan* Abolfazl Taghavi	Hot Spots and Hot Moments in Prescribed Fire across the Southeastern US: Using Permit Data for Advocacy and Policy Change Karen Cummins	Fire Dynamic Vision: A Tool for Tracking and Characterizing Smoke Plumes in Prescribed and Wildland Fires Bryan Quaife
2:50 - 3:10		Assessing Consistency in Fuel Consumed between Activity-based Wildfire Emission Estimates* Pablo Saide	A novel sampling system for gas and particulate chemistry measurements in wildfire smoke Mark Leone

3:10 - 3:30		Enhancing Fuels in Large-scale Models by Connecting Ground-based Fuels (FCCS) Amber Soja	Evaluating FirePixels: A multi-layered framework for smoke emission estimation using recent Australian bushfire case studies* Fabienne Reisen
3:30 - 3:45	Networking break		
3:45 - 5:00	<p align="center"><b>General session panel: New and Emerging Topics at the Intersection of Smoke and Health</b>  Jason Sacks and Erika Sasser, Environmental Protection Agency and Erika Sasser (facilitators)  Colleen Reid – University of Colorado, Boulder  Fernando Garcia-Menendez – NC State University  Stephanie Cleland - Simon Fraser University / Vancouver Coastal Health Research Institute</p>		
5:00	<i>Shuttle provided to Tallahassee</i>		
	Free evening		
<b>Friday, March 27</b>			
8:00 - 9:00	<i>Shuttle provided from Tallahassee</i>		
9:00 - 4:00	<b>Field Trip One:</b> Fire on the Ground, Smoke in the Air: Science and Collaboration in Prescribed Burning		
9:00 - 4:00	<b>Field Trip Two:</b> Fire on the Edge: Burning Next to Communities		