7th International Fire Behavior and Fuels Conference

Boise Centre, Boise, Idaho

April 15-18, 2024

International Association of Wildland Fire

DRAFT PROGRAM SCHEDULE (Subject to Change)

Monday, April 15

8:00	Workshop Registration Check-in			
	WORKSHOPS			
10:00-12:00	**Gathering User Input for Long-term Fire Weather Outlooks** Samantha Kramer, Sonoma Technology Inc. Brian Potter, Research Meteorologist, USDA Forest Service	**Challenges and Opportunities for Wildland Fire Workforce Reforms'** Kelly Martin, others TBD		4-6 hours off-site at Wildland Fallen Firefighter Foundation **Proactive near real-time data science for avoiding climate- disasters. The linking of fire-fuels-human behavior for actionable, proactive outcomes** Exact timing TBD
12:00	Lunch (on your own)			
12:00 - 5:00	Exhibitor Set Up			
1:00 - 3:00	**Communicating the shift in wildland firefighting:** **Reframing our communication practices to match the effective wildland fire management** Joel Iverson, PhD, University of Montana Steven Venette, PhD, University of Southern Mississippi Sylvie Coston, Research Assistant, University of Montana Jane Darnell, Consultant (retired USDA Forest Service)	**Wildland Fire Systems Mapping** Matt Thompson, Pyrologix Tony Cheng, Director, Colorado Forest Restoration Institute Jim Menakis, Branch Chief for Fire Ecology, USDA Forest Service		
3:00-5:00				
1:00 - 3:30	Field Tour - National Interagency Fire Center (NIFC)			
3:00 - 5:00	Regiception (registration and reception)			
5:00 - 6:00	**Welcome and Opening Remarks: Kelly Martin, IAWF President** **Keynote Presentation: Dr. Lori Moore-Merrill, U.S. Fire Administator**			
6:00-8:00	Welcome Reception with Sponsors and Exhibitors			

Tuesday, April 16

9:00-10:00	**Keynote Presentation: Streamed from Ireland** **Dr. Mark Parrington, Senior Scientist in the Copernicus Atmosphere Monitoring Service (CAMS) Development Section , European Centre for Medium-Range Weather Forecasts and** **Dr. Joseph Wilkins, Assistant Professor, Department of Atmospherice Science, Howard University**				
10:00 - 10:30	Networking Break with Exhibitors and Sponsors				
	Fuels and Technology	**Fuels and Fire Behavior (WUI)**	**Technologies and Approaches (QUIC-Fire)**	**Operations and Management**	**Extreme Fire Behavior**
10:30 - 10:35	Quantification of down woody surface fuels in fire-maintained ecosystems using airborne laser scanning data and field information Nuria Sanchez Lopez	Resilience in the Face of Escalating Fire Risk: A Community Perspective Ian Appow	Fuel break planning using a return on investment framework Jason Kreitler	Perspective and Comparison of Aerial Fire Intelligence Collection Methods Cameron Pierce	
10:35-10:40	Comparing Consumption from On-the-Ground Radiometry and Fuels Measurements at Prescribed Fires Joseph Paki	From at Risk to Empowered Justice Jones	Burning with friends Valentijn Hoff	A new generation of the Firefighter Estimated Ground Evacuation Time Layer: Summary of updates and improvements Mickey Campbell	
10:40-10:45	Overview of the Burn Severity Portal Seth Bogle	Prescribed burn forecasting and planning support using the WRFx system and WRF-SFIRE for the Fire and Smoke Model Evaluation Experiment (FASMEE) Kathleen Clough	Coupled Natural and Institutional Systems: A Twenty-Year Study of the Changing Institutional Complexity of Wildfire Branda Nowell	Delivering Trusted Data to Inform Decision-Makers in a Collaborative Environment Dave Jones	
10:45 - 11:00	Quantifying the influence of spruce budworm on wildfire behaviour using terrestrial LiDAR Kennedy Korkola	Parameterization of Building Fuel Models for Simulating Wildland-Urban Fires Maria Theodori	QUIC-Fire Simulations of Fire Behavior and Fire Emissions Joseph Charney	Can we estimate the probability of the Initial Attack Success? Adrián Cardil	Free atmosphere dynamics drive top-down coupled extreme wildfire events Marc Castellnou Ribau
11:00 - 11:15	Simple Fuels Monitoring using LiDAR for 3D Fire Behavior Modeling Louise Loudermilk	Sensitivity of Inputs for Simulating Fires at Wildland Urban Interface Dwi Purnomo	Comparing fire spread simulations by QUIC-Fire and Fire Dynamics Simulator Anthony Bova	Beyond the Fireline: Identifying Information Gaps to Support Incident Command Katelynn Kapalo	Extreme Fire Behavior: Learning from the Catastrophic Lahaina Fire of 2023 Scott Purdy

11:15 - 11:30	The impact of hardwoods and climate on wildfire resilience Jocelyne Laflamme	Intermediate Fire Behavior – Introducing Factors of the Built Environment Daniel Gorham	Fire Danger Risk Assessment with QUIC-Fire Zachary Cope	Challenges and opportunities for incident management teams deploying overseas Peter Brick	Comparison of Pyrocumulonimbus Updrafts Using Optical Flow Techniques Theodore Mchardy
11:30 - 11:45	Airborne LiDAR to improve canopy fuels mapping for wildfire modeling Troy Saltiel	A graph model for assessing damage to the built environment in a wildfire event Akshat Chulahwat	Using ALS and UAS point clouds to upscale a TLS-based fuel classification to inform Quic-Fire simulations at the scale of a Rx fire in ponderosa pine forest Andrew Hudak	Overhead Hazards to Fire Responders: Leveraging Change Detection to Quantify the Magnitude and Rate of Tree Mortality at Landscape Scales Christopher O'Connor	Synoptic Weather Patterns and Extreme Fire Spread in the Northwest Reed Humphrey
11:45 - 12:00	Fuel ID: accurate fuel mapping using remote sensing Jeremy Arkin	Accounting for hardened structures in WUI fire modeling Fernando Szasdi-Bardales	Simulating fires in heterogenous fuels using QUIC-Fire Rodman Linn	Applying NUCAPS as a Predictive Tool to Mitigate Dangerous Firefighting Conditions Arunas Kuciauskas	Wildfire Eruption: First observations from the California Canyon Fire Experiment Craig Clements
12:00 - 12:15	Assessing relationships between LiDAR-derived canopy metrics and fuels in Appalachian ecosystems Julia Defeo	Landscape-scale fire dynamics and prediction in Wildland-Urban Interface fire events Janice Coen	FastFuels and QUIC-Fire: 3D fuel and fire modeling systems supporting prescribed fire Russ Parsons	Comanagement on Jurisdictionally Complex Wildfires Branda Nowell	Investigation of eruptive fire behaviour at field scale Alexander Filkov
12:15 - 12:30	Fire rise dynamic in Guinea using MODIS-NDVI time-series over the 2001 to 2016 period Mamadou Baïlo Barry	Hybrid machine learning and physics-based tool for simulating wildfire spread in urban areas: Application to risk management Mehdi Jeddi		Fire Environment Decision Support: What is and what could be Nick Nauslar	Turbulence and Fire-Induced Winds During Canyon Fire Eruption Maritza Arreola Amaya
12:30 -2:00	Lunch (on your own)				
	Fuels and Fire Behavior (Fuels treatments)	**Fuels and Fire Behavior**	**Technologies and Approaches**	**Operations and Management**	**Smoke**
2:00 - 2:15	Fuel modification by deciduous tree inclusion in the European boreal Frida Plathner	Fuel Break Effectiveness: Understanding Fire Response to Spatial Variations in Vegetation and Wind Daniel Jimenez	Estimating, Evaluating, and Communicating Uncertainty in Wildland Fire Prediction Janice Coen	Assigning fuel models to Potential Control Locations: Bridging science and practice Katie Wollstein	Modeling wildfire smoke transport Patricia Azike
2:15 - 2:30	Transitions in plant community composition after fire in sagebrush steppe Cara Applestein	Experimental Study of Wind-Driven Fire Spread over a Fuel Gap Kelly Clevenson	Bringing Researchers and Operations together for Mutual Benefit Mark Gunning	Prioritization of POD network fuel treatments using spatial data Joseph St. Peter	Smoke Transport and Fire Weather Climatology Dashboard for California ShihMing Huang
2:30 - 2:45	Estimating the influence of field inventory sampling intensity on forest landscape model performance for determining high-severity wildfire risk Hagar Hecht	Estimating ladder fuel contributions to crown fire occurrence in conifer forests Daniel Perrakis	A new tool for mapping visibility at landscape scales to assist firefighter situational awareness Katherine Mistick	Landscape Strategy Analysis with PODs and Dynamic Risk Assessment Matt Thompson	Measuring and simulating smoke plumes from prescribed fires in the Southeastern US Yongqiang Liu
2:45 - 3:00	The Impact of Diameter Size Class and Moisture Content on Fire Behaviour Milan Lapres	Systematic exploration of the ignition of wildland ladder fuels Yucheng He	Sparking the future of fire behaviour simulation Deb Sparkes	Physical, Social, and Biological Attributes for Improved Understanding and Prediction of Wildfires: FPA FOD-Attributes Dataset Mojtaba Sadegh	Simulating regional wildfire smoke using a coupled fire-atmosphere model (WRF-SFIRE-Chem) Derek Mallia
3:00 - 3:30	Networking Break with Exhbitors				
	Fuels and Fire Behavior (Fuels treatments)	**Fire Behavior Modeling**	**Human Dimensions**	**Ops and Mgmt and Technologies/Approaches**	**Smoke**
3:30 - 3:45	Optimised Placement of Fuel Treatments using a Burn Probability Metamodel Douglas Radford	Measurement and modeling of flow within discrete vegetation and its role in burning dynamics Eric Mueller	Online psychological treatment for insomnia, nightmares and PTSD in bushfire survivors: A pilot study Fadia Isaac	Computer assisted mining of textual data in the US Wildfire Decision Support System to understand patterns in decision-making Carl Seielstad	Impact of Wildfire Smoke on Exceptional Events and NAAQS Standards Crystal Mcclure
3:45 - 4:00	Effectiveness and durability of common fuel treatments in sagebrush ecosystems Lisa Ellsworth	Multi-model comparisons of crown fire behavior in ponderosa pine forests Jacob Ney	Changes in working environment for wildland firefighters Erin Belval	Advances in NOAA Satellite Products and Information in Support of Wildland Fire Operations Michael Pavolonis	Hyperlocal Particulate Matter Monitoring: Leveraging Low-Cost Sensors in Wildfire Scenarios Muhammad Jalal Awan
4:00 - 4:15	Resolving common misconceptions of fuel treatment impacts and effectiveness Jeff Kane	Effects of Slope Steepness and Cross-Slope Wind Speed on Fire Spreading Behavior for Various Vegetations Jaemyeong Seo	Economic impacts of Columbia River Gorge National area from the wildfire in 2017 Mohan Heenatigala	Advancements in Wildfire Detection and Their Impact on California's Wildfire Management Mike Wilson	Lessons Learned Operating AI-driven Wildfire Smoke Detectors in Oregon Nick Maggio
4:15 - 4:30	A meta-analysis of fuel treatment effectiveness in the western US Christopher Moran	Fuel Surface-Reaction Model for Thick Fuels in Fire Alexander Josephson	Strategies to support post-fire recovery in the Western United States for sustainable health and socio-economic impact Chisom Nnajiofor	Developing an Innovative Approach to Learning Retention and Habit Forming for Wildland Firefighters Daniel Jimenez	There's life in smoke: the state of the science and why we should care Leda Kobziar
4:30 - 4:45	Transition to General Session				

4:45 - 6:00	**Keynote Presentation (Streamed from Australia):** **Dr. Dean Yibarbuk , Chairman of Warddeken Land Management Ltd**				
6:00 - 7:30	**Poster Session and Reception**				
Poster Presentations	Reducing the risk of sexual misconduct in wildland fire professions Adam Coates	Implementing the Smagorinsky Turbulence Model in FIRETEC Dorianis Perez	CSOs in Integrated Fire Management- The case of Fire Volunteer Squads in Ghana Janet Boahen	BBURNED: Biomass Burning Uncertainty: ReactioNs, Emissions and Dynamics -- An IGAC Activity Nancy French	Long term effectiveness of fuel management in Jasper National Park Tristan Skretting
	What is 'good'? Choosing a landcover dataset for wildfire research: A case study in Alberta, Canada Air Forbes	Parametric evaluation of a computer vision algorithm for rate of spread estimation Ehsan Ameri	Impact of fuel treatment on stand structure after ten years Jared Randall	The Influence of Ambient Temperature on the Moisture Content and Ignition Propensity of Solid Fuels Naoki Manzano Miura	Mountain Pine Beetle severity impact on fuels and fire behaviour Tristan Skretting
	Evaluating Satellite Fire Detection Products and an Ensemble Approach for Estimating Burned Area in the United States Amy Marsha	Perceptions of Wildfire Science, Policy, and Management: A Pilot Study Eric Kennedy	Evaluating trade-offs between fire management and forest carbon dynamics in British Columbia Jocelyne Laflamme	Identifying long-range spotting events using weather radar Neil Lareau	Wildfire Spread prediction using Celullar Automata introducing new roles using fire behavior Warda Rafaqat
	Collecting data on the benefit of forest health treatments to fire operations: the Wildfire Interaction with Treatments and Suppression (WITS) Survey Ana Barros	Assessing impacts of climate change and human population growth on forest fire potential in the tropics: A case study of the Tain II Forest Reserve in Ghana Eric Osei-Kwarteng	Understanding spatial variation in grassland fuel characteristics Jonathan Henn	Defoliators and Wildfire Ignition Probability in Canada's Eastern Boreal Forests Nicholas Dewez	The Interagency Fuel Treatment Decision Support System (IFTDSS) in early NEPA project planning Wendy Detwiler
	Conflicts in Fire-prone Degraded Forests: Case of Afrensu Brohuma Forest, Ghana Bismark Anin	Integrated Fire Management in Afram Headwaters Forest Reserve, Ghana Esther Adjei	Wildfire risk and mitigation opportunities in the US sagebrush biome Karen Short	Burn Severity and Vegetation Recovery in the Forest of South-Central Nepal Prakash Tiwari	
	Factors controlling pyrocumulonimbus initiation during the Bootleg Fire Braeden Winters	Reducing human-caused wildfire ignitions using community bye-laws in Ghana Hannah Owusu Tuffour	Assessment of Broadscale Vulnerability and Resiliency of Boreal Peatlands to Wildfire Under Extreme Drought Laura Bourgeau-Chavez	Fuel Treatment Impact on Forest Carbon in Southeastern British Columbia Rachel Pekelney	
	Learning Fire Models with Noisy Data Bryan Quaife	UAS Supporting Ground Resources Heidi Leritz	Octopus Creek Wildfire - After Action Review Liam Curran	Ignition by Heated Metal Particles: a Case Study on smoldering and flaming ignition in wildland fuel bed and effects of wind on ignition behavior Shusmita Saha	
	Fire-adapted woodland restoration at Manassas National Battlefield Park, Virginia Dasha Maslyukova	A framework for quality-of-life losses due to wildfires Irfan Ahmad Rana	Assessing the relationship between landscape interventions and wildfire risk Northern European heathland ecosystems Monika Moreu Vicente	A Process for Identifying Compounding Conditions in Climate, Weather, and Fire Timelines Tamara Wall	

Wednesday, April 17

8:00-12:00	**Workshop: Development and availability of spatial burn severity data through the USGS/USFS Burn Severity Portal** Kurtis Nelson, Physical Scientist, USGS; Marcus Haselhoff, GIS Analyst, USGS EROS contractor
9:00 - 4:00	**Field Tour: Celebration Park**
9:30 - 2:00	**Field Tour: The Peregrine Fund's World Center For Birds of Prey**
10:00- 12:30	**Field Tour: National Interagency Fire Center (NIFC)**
10:00- 1:30	**Field Tour: Idaho Firewise Garden, Old Penitentiary and Warm Springs Mesa**
10:00 - 12:00	**Workshop: Decolonial Community-led Forest Fire Research Methodology** Ranjan Datta, Mount Royal University; Colleen Charles, Indigenous Elder
12:00	Lunch (on your own)
2:00 - 5:30	**Field Tour: Idaho Firewise Garden, Old Penitentiary and Warm Springs Mesa**
1:00-5:00	**Workshop: The Interagency Ecosystem Lidar Monitoring Program (IntELiMon):** **Working with managers to improve fuels, ecology and forestry monitoring using lidar** Kurtis Nelson, Physical Scientist, US Geological Survey, Emily Link, Fire Ecologist, and Leta Douglas, Forestry Technician, US Fish and Wildlife Service

2:00 - 4:30	**Field Tour: National Interagency Fire Center (NIFC)**				
2:00 - 5:00	**Job Fair**				
Thursday, April 18					
9:00 - 10:00	**Opening Remarks and General Session:** **Dr. Mark Finney, Research Forester, Missoula Fire Sciences Laboratory**				
10:00 - 10:30	Networking Break with Exhibitors and Sponsors				
	Fuels and Fire Behavior	**Fuels and Fire Behavior (WUI mitigation)**	**Fire Behavior**	**Fire Behavior and Technology**	**Weather and Climate**
10:30 - 10:35	How smoky was California before Euroamerican settlement? Andrea Duane	Okanagan Fires 2023: Success Amongst Destruction: Lessons Learned John Davies	The Role of Vorticity-Driven Lateral Spread in Firebrand Transport: Insights from Higrad/Firetec Simulations over a Mountain Ridge Mukesh Kumar	Leveraging additional VIIRS information to improve fire tracking, behavior, and emissions estimates Shane Coffield	Weather Drivers of Quebec's Extreme 2023 Fire Season Tempest Mccabe
10:35-10:40	Research Plan on Quantifying the Effects of a Prescribed Fire on a Small Watershed Tao Huang	Project ReSHAPE: Reshaping Wildfire and Fuels Reduction Information Aaron Kimple	Ignition and Burning behaviors of landscaping mulches by firebrands Shaorun Lin	SJSU Wildfire Imaging System (SWIS): Overview and initial results Andrew Klofas	Worldwide pyrocumulonimbus inventory reveals the frequency, variability, and stratospheric impact of smoke-infused storms during 2013-2022 David Peterson
10:40-10:45	Forecasting Soil Burn Severity for Fuels Planning from a Watershed Perspective Mary Ellen Miller	Fool's Reduction: Addressing Forest Activists' Critiques of Thinning for Fuels Reduction Timothy Ingalsbee	Development of Pyrolysis Reaction Mechanisms for Peat Sarah Scott	USGS NCAC Wildfire Mapping Jeffrey Ganuza	Can coarse resolution products detect changes in African fire activity? Maria Zubkova
10:45 - 11:00	Canadian fuel types mismatch forest structure and composition: An opportunity to evolve Jen Baron	Integrated built environment and wildland mitigation strategies towards effective reduction of wildfire risk Hussam Mahmoud	Thermogravimetric Analysis of Peat Sara McAllister	Estimating Fire Intensity with Aerial Thermal Infrared Imaging of Wildfires Alexander Mcfadden	Subseasonal Predictability of Fire Weather Metrics for Decision Support Samantha Kramer
11:00 - 11:15	Forces on Moisture: Fuel Dynamics in a Rocky Mountain Ponderosa Pine Forest Gunnar Ohlson	Strategic Wildfire Risk Mitigation Zones: spatial data to prioritize activities in the Wildland-Urban Interface Joe Scott	Underground peat fire can resurface to ignite a flaming wildfire: An experimental demonstration Shaorun Lin	High-Resolution Wildfire Monitoring with Deep Learning and Satellite Remote Sensing Kasra Shamsaei	Near Term Fire Weather Forecasting in the Pacific Northwest using 500-hPa Map Types John Saltenberger
11:15 - 11:30	Picture Perfect Fuels: Applying In-Field Photoload Series to British Columbia Madison Hughes	Science-Based Large Outdoor Fire Standards and Codes Samuel L. Manzello	Fuel Variability and Fireline Geometry: Bridging Observational and Numerical Insights Anthony Marcozzi	Hourly Wildfire Growth Database Fusing Polar-Orbiting, Geostationary, and Multi-Agency Observations ShihMing Huang	Blended Wildfire-centric Lightning Dataset and Its Applications Daile Zhang
11:30 - 11:45	Development and testing of operational universal fuel assessment guide Samuel Hillman	Innovation in the WUI: achieving multiple benefits through fuels management Tara Bergeson	What acoustic remote sensing tells us about wildland fire Kara Yedinak	Using Satellite Information for Improved Wildland Fire Behavior Forecasting Kyle Hilburn	Predicting Hourly Wildfire Risk: Enhancing Fire Danger Assessment with Numerical Weather Modeling Christopher Rodell
11:45 - 12:00	Modelling relative fire potential in boreal forest using fire-expert photo interpretation of Swedish NFI plots Anders Granström	Factors Influencing Residential Wildfire Mitigation: A Scoping Review (<2022) Sarah Cowan	Investigating the Impact of Dynamic Variations of Local Fuel Moisture on Grassland Fire Propagation Ritambhara Raj Dubey	Improving Remote Sensing Capabilities for Assessing Burn Severity: Examples from the Black Hills, South Dakota, USA Jennifer Rover	Predictive Services 7-Day Significant Fire Potential Verification Jim Wallmann
12:00 - 12:15	Beyond depth of burn: The influence of drought on other indictors of fire behaviour Chelene Hanes	High-Resolution Wildfire Evacuation Risk Assessment for Mitigation Implementation Samantha Kramer	Numerical Simulations of Surface Fire Dynamics Around Tree Boles Anthony Bova	Utilizing High-Resolution Surface Disturbance Observation to Characterize Wildland Fire Events Runze Zhang	National Oceanic and Atmospheric Administration Improvements in Fire Weather Hazards Services Robyn Heffernan
12:15 - 12:30	Restoration treatment and burn severity effects on post-fire ecosystem dynamics David Peterson	Enhancing Fire Safety in Refugee Camps: Innovation, Challenges, and Solutions Sm Safiqur Rahman	Wood combustion from the inside out and its relationship to wildland fire management John Flynn	Quantifying fire behaviour in a fuels management area using UAV imagery Milan Lapres	Projecting Future Wildfire Spread Potential in British Columbia, Canada Leona Shephard
12:30 - 2:00	Lunch (on your own)				
	Fire Behavior (Firebrands)	**Fuels and Fire Behavior Modeling**	**Prescribed Fire**	**Risk/Human Dimensions**	**Weather and Climate**
2:00 - 2:15	Determining the Propensity of a Structural Fuel to Release Firebrands in WUI fires Sayaka Suzuki	Exploring Fire Behavior Modeling Response to Fuel Rotations Daniel Rosales Giron	Prescribed fire to support ecosystem services in the US West Anna Lopresti	Driving Factors Contributing to WUI Fire Risk in California Maryam Zamanialaei	160 years of forest fire danger in the European boreal Johan Sjostrom

2:15 - 2:30	Firebrand generation and ignition models for application in wildfire modeling Steven Wong	Enhancing WRF-SFIRE: Advanced numerical techniques for accurate Level-Set Method and atmospheric variables projection Aurelien Costes	Restoring California's coastal prairies through mechanical pre-treatment and prescribed fire Killian Cook	Understanding Community Vulnerability to Wildfire in the Robson Valley, Canada James Whitehead	High-resolution paleofire records: a management perspective from 1000 years in a Mediterranean Biome Stella Mosher
2:30 - 2:45	Thermal Characterization of Deposited Firebrands Savannah Wessies	Comparing WRF-Fire simulation with UAS IR observations to infer fuel characteristics over 2021 Dixie Fire Majid Bavandpour	Pyrodiversity: prescribed fire intensity and fuels consumed California's chaparral Jannike Allen	Deciphering Wildfire Risk for Electrical Utilities Joanna Wand	Insurance Industry Insights from a Climate Adjusted Wildfire Risk Score William Stikeleather
2:45 - 3:00	3D morphology of firebrands generated during WUI fires: a step forward towards a classification methodology using complex shape descriptors and firebrand digital models Nicolas Bouvet	Advancing Coupled Fire-Atmosphere Simulation: The Effects of Fuel Bed and Heat Release Kasra Shamsaei	California Prescribed Fire Monitoring Program: building credibility around prescribed fire Ruth Domenech Jardi	Assessing Telecommunication Vulnerabilities to Wildfire in Alberta, Canada Carter Kuiper	Innovative Approach to Developing a Climate Adjusted Wildfire Risk Score Mark German
3:00 - 3:30	Networking Break with Exhbitors and Sponsors				
	Fire Behavior (Firebrands)	**Fuels and Fire Behavior Modeling**	**Technologies and Approaches (Mapping)**	**Cultural Perspectives**	**Smoke**
3:30 - 3:45	Effects of Urban Landscapes on Firebrand Spotting in WUI Fires Iago Dal-Ri Dos Santos	Modeling and Forecasting Fuel Moisture Content in WRF-SFIRE by Physics-Initialized Recurrent Neural Networks Jan Mandel	Wildfire ignition probabilities by cause for the western United States Christopher Moran	Indeterminacy of fire in forest ecosystems: relevance of Indigenous knowledge Craig Bienz	Climate-related Earth Systems Change and Wildland Fire Smoke Toxicity Brooke Hemming
3:45 - 4:00	Integrating UAS-collected Atmospheric Data for Ember Spread Modeling Daniel Sunvold	A Machine Learning Rate of Spread Model in WRF-SFIRE Angel Farguell	Landscape fire exposure in Canada Jen Beverly	Wildfires in the US Northwest in 1889 Richard Mccrea	Forecasting daily fire radiative energy using data driven methods for air quality forecasting Laura Thapa
4:00 - 4:15	Implementing Fire Spotting in Coupled Fire-Atmosphere WRF-Fire Platform Kasra Shamsaei	WRFx fire forecasting system: new developments in fire initialization and operational forecasting Angel Farguell	Reliability of digital resources for planning fuels treatments: inferences from two contrasting national parks Samuel Price	Influence of Climate Change on Forest Fire in Sri Lanka Mohan Heenatigala	Optimization of Forest Fuel Treatments to Reduce Smoke Emissions from Megafires Kayla Johnston
4:15 - 4:30	Transition to General Session				
4:30 - 5:30	**General Session and Closing Remarks: Canada Panel**				
5:30	Conference Adjourns				
6:30	Afterhours Activity - TBD				