2026 WUI Fire Engineering Summit
August 10-12, 2026
College Park, Maryland, USA

SFPE FOUNDATION
Grand Challenges Initiative

WUI Summit Posters

Posters will be presented in two rooms: Prince George's Room and the Atrium.

Please refer to the map on the following pages and list of Presenter Names and Abstract Titles to find posters in which you are interested.

To read Poster Abstracts, please visit the WUI Summit Program webpage to see the Author's biography and abstract or open the red accordion buttons on the webpage.

Don't forget to vote for the best poster using the "People's Choice" card in your name badge.

https://www.sfpe.org/2026wuisummit/program

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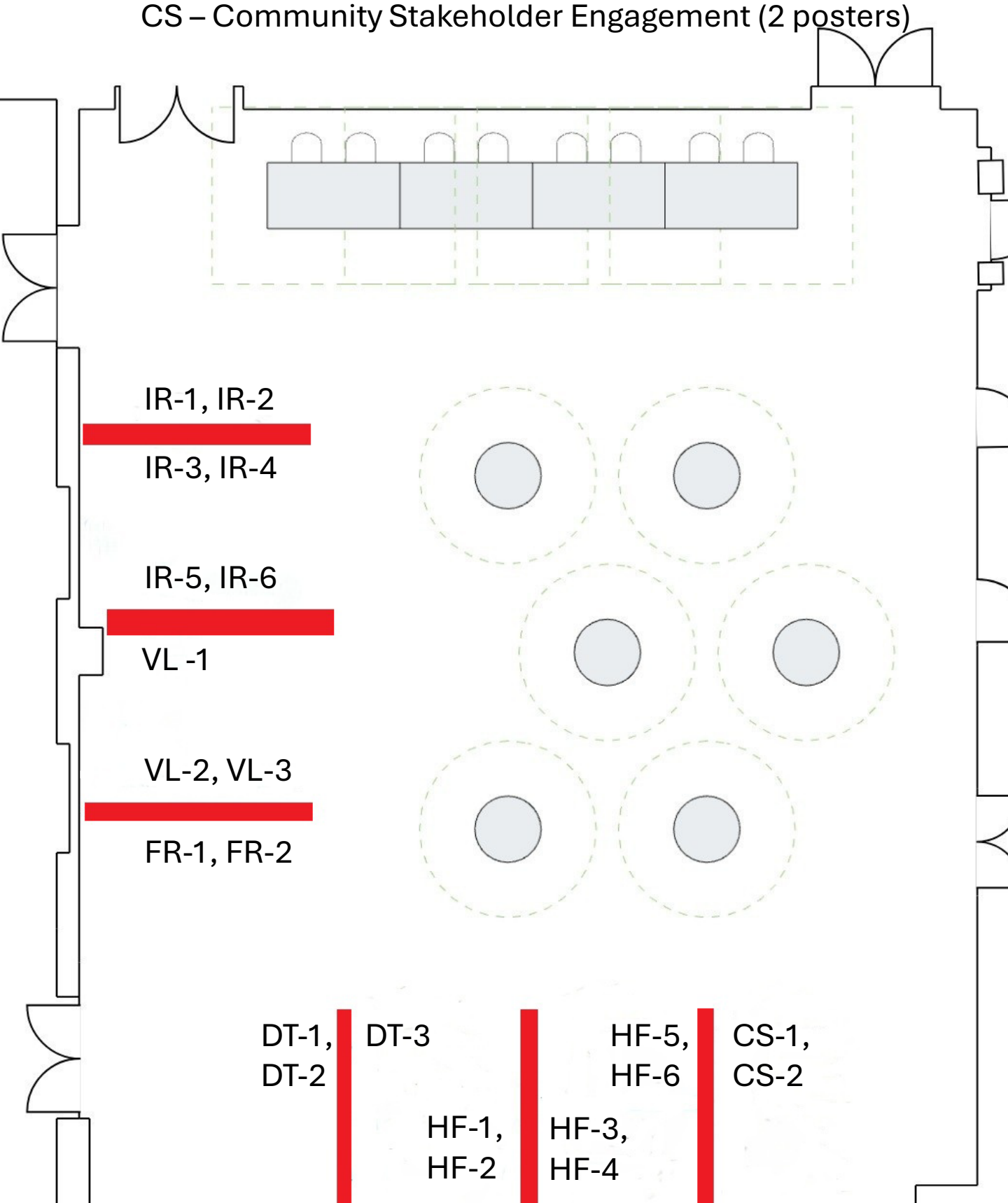
Prince George's Room Posters

IR – Individual Parcel Risk Assessment (6 posters)
VL – Vegetation and Landscape Management (3 posters)
FR – Fire Resistant Construction (2 posters)
DT – Digital and New Technology (3 posters)
HF – Historic or Forensic Analysis (6 posters)
CS – Community Stakeholder Engagement (2 posters)



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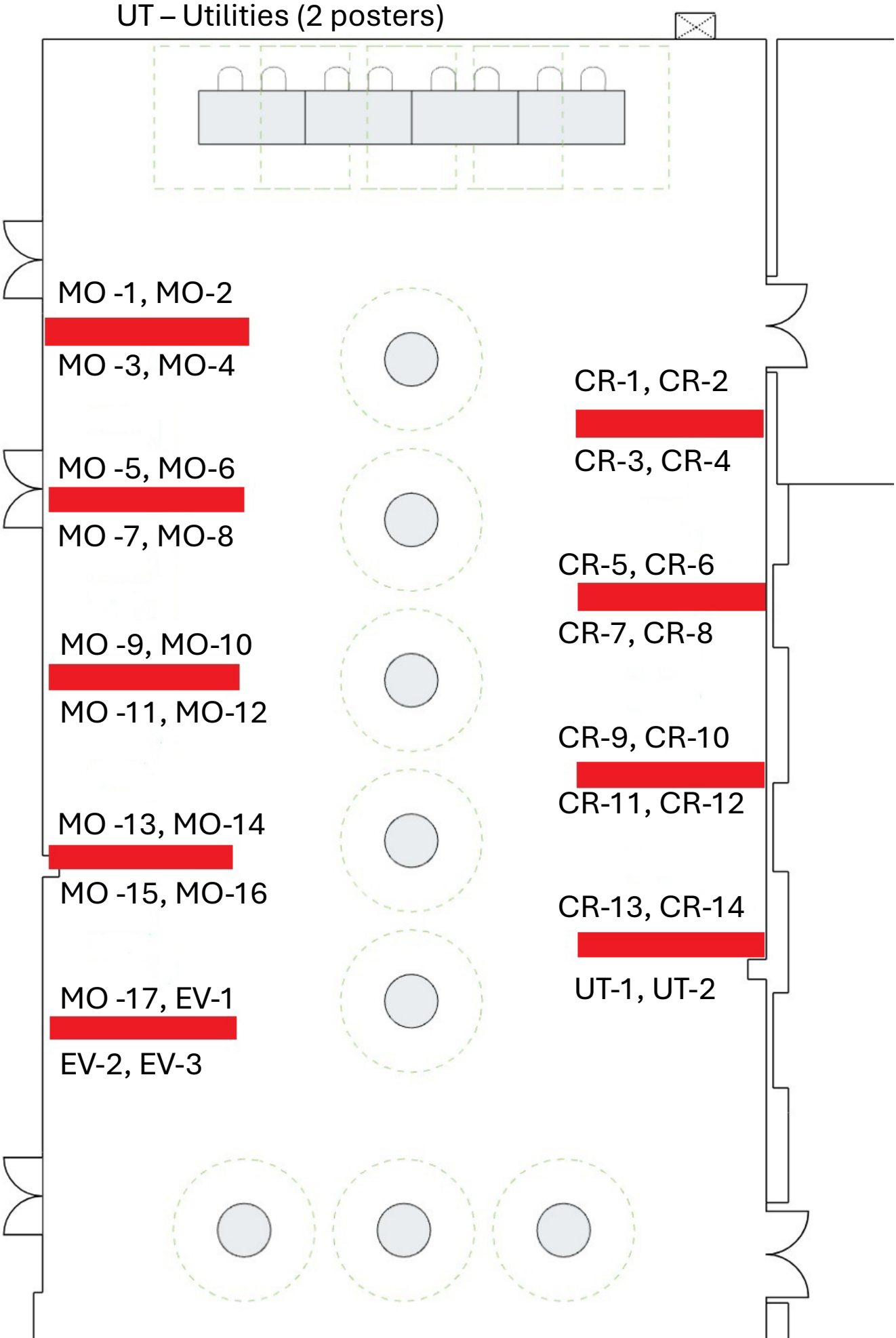
Atrium Posters

MO – Modeling (17 posters)
EV – Evacuation (3 posters)
CR – Community Risk Assessment (14 posters)
UT – Utilities (2 posters)



Number	Room	Subject	Authors	Title
CR-1	Atrium	Community-Level Risk Assessment	Albert Presto	Long-range impacts of WUI fires: Insights from the ASCENT network
CR-2	Atrium	Community-Level Risk Assessment	Andrew J. Whelton	Fire Recovery Decisions: Evidence-based decisions for debris removal, soil restoration, and water utility recovery after destructive wildfires to protect families and business
CR-3	Atrium	Community-Level Risk Assessment	Esther Jose	A Spatial Decision Support Framework for Risk-Informed Prescribed Burning
CR-4	Atrium	Community-Level Risk Assessment	Gabriela Calana Somoza	Improving regional wildfire risk assessment frameworks by including the probability of ignition sources
CR-5	Atrium	Community-Level Risk Assessment	Brookelyn Conner and Haejun Park	Development of a community-specific WUI fire resilience assessment model
CR-6	Atrium	Community-Level Risk Assessment	Hannah Gibbs	Investigation into VOCs and Trace Metal Emissions from Wildfires Impacting Canadian Communities
CR-7	Atrium	Community-Level Risk Assessment	Jiwon Baik	Quantifying Worst Case Fire Access: A Big Data Framework for Assessing the Compliance of Fire Code Structure Access
CR-8	Atrium	Community-Level Risk Assessment	Joe Hart and Katherine Burgum	Field-Based Mapping and Characterisation of Urban and Peri-Urban Vegetation for Wildfire Mitigation in Los Angeles
CR-9	Atrium	Community-Level Risk Assessment	Majid Bavandpour	Beyond Single-Valued Wildfire Risk: A Computationally Efficient Framework for Systematic Uncertainty Propagation
CR-10	Atrium	Community-Level Risk Assessment	Md Jalal Uddin Rumi, Guowen Song, and Rui Li	Controlled Characterization of Modern WUI Fire Smoke: Beyond PM2.5 Mass toward Size-Resolved Particle and Toxicant Assessment
CR-11	Atrium	Community-Level Risk Assessment	Payton Mooney	Housing, Parcel, and Urban Planning Characteristics Affecting Residential Survivability in the 2025 Eaton Fire
CR-12	Atrium	Community-Level Risk Assessment	Raphael O. Ogabi, Reza Ziazi, and Albert Simeoni	Enhancing WUI Resilience; Tier Approach System for Fire Shelter Development and Standardization
CR-13	Atrium	Community-Level Risk Assessment	Sara Cristina Rodrigues Alexandre	Beyond Building-Centric Fire Safety: Practice-Based Insights on Community Preparedness and Risk Prevention in WUI Contexts
CR-14	Atrium	Community-Level Risk Assessment	Van Nguyen	Inhalation Exposure to Surrogate Wildland Urban Interface Fire Emissions Impairs Microvascular Function

Number		Subject	Authors	Title
CS-1	Prince George's	Community Stakeholder	Hannah Odia	Reimagining Wildfire Risk Frameworks: A Dynamic Approach to Fire Risk Prediction in Indigenous WUI Communities Across Canada
CS-2	Prince George's	Community Stakeholder	Paulina Mejia, Amelia Pludow, and Darlene Rini	Beyond Technical Analysis - Lessons in Community and Stakeholder Engagement from a Regional Community Wildfire Protection Plan (CWPP)
DT-1	Prince George's	Digital Technology	Adetola Koiki	Compact stereoscopic payload for firebrand trajectory characterization
DT-2	Prince George's	Digital Technology	Andres Felipe Rivas Bolivar	Autonomous Unmanned Aerial Vehicle (UAV) Applications in Wildland-Urban-Interface (WUI) Fire Scenarios
DT-3	Prince George's	Digital Technology	Daniel San Martin	Accelerating Fire Exposure Reconstruction in WUI Fire Modeling via AI-Driven Surrogate Models
EV-1	Atrium	Evacuation	Ankush Jha	Strategies for Enhancing Wildfire Evacuation Efficiency Considering Realistic Fire Spread and Vehicle Obstruction Scenarios
EV-2	Atrium	Evacuation	Carol Rice	Wildfire Risk Analysis supporting evacuation timing decisions at the Lawrence Berkeley National Laboratory, Berkeley, CA
EV-3	Atrium	Evacuation	Justin W. Bonny	Development of the Wildfire Alert Situation Awareness (WASA) Questionnaire
FR-1	Prince George's	Fire Resistant Construction	Evan Sluder	Ignition Vulnerabilities at the Wall-Foundation Interface in Exterior Wall Fire Test Methods
FR-2	Prince George's	Fire Resistant Construction	Supriya Bharti	Fire Performance of Belitic Calcium Sulpho Aluminate (BCSA)-Based Cementitious Systems for Wildland-Urban Interface Application
HF-1	Prince George's	Historic Forensic Analysis	Daniel Gorham	Data Collection & Analysis Methodology for WUI Fires
HF-2	Prince George's	Historic Forensic Analysis	Kara Noland	Understanding Human Behaviour in Wildland-Urban Interface Fires: A South African Case Study Using Reflexive Thematic Analysis
HF-3	Prince George's	Historic Forensic Analysis	Linnea Townsend and Keon Senez	Fire Weather Index Correlations to Historical Wildfires in Canadian Indigenous Communities
HF-4	Prince George's	Historic Forensic Analysis	Rayne Clarke	Uncertainty-Aware Spatiotemporal Reconstruction of WUI Fire Progression
HF-5	Prince George's	Historic Forensic Analysis	Nick McCarthy, Kristy Butler, and Rosie Mathews	Defensive Firefighting: Where is the research?
HF-6	Prince George's	Historic Forensic Analysis	Troy Ferland	Incorporating municipal data to estimate fuel loads and characterize WUI fire-derived chemical fingerprints from the Lahaina Fire

Number		Subject	Authors	Title
IR-1	Prince George's	Individual Risk Assessment	Abdullah Rehman	Resolving Sub-Metre Fuel Heterogeneity in the Wildland–Urban Interface for Structure-Level Fire Risk Assessment
IR-2	Prince George's	Individual Risk Assessment	Alana Miska and Shuna Ni	From Practice to Policy: Examining Wildfire Hazard Mitigation & Regulatory Frameworks
IR-3	Prince George's	Individual Risk Assessment	Krzysztof Munko	Quantifying the effects of variability in firebrand deposition on pile burning and heat transfer processes
IR-4	Prince George's	Individual Risk Assessment	Shuna Ni	Empirical Fragility Surfaces for Wildland–Urban Interface Structure Damage Based on Site and Building Characteristics
IR-5	Prince George's	Individual Risk Assessment	Tadele Getu	Housing Vulnerability Classification Framework for Wildland–Urban Interface Fires in Remote and Data-Constrained Communities
IR-6	Prince George's	Individual Risk Assessment	Yifei Ding and Willa Egan	Parcel-Scale Fire Damage Risk Assessment in Wildland Urban Interface
UT-1	Atrium	Utility	Francisco Joglar and Liora Mervis	Reducing Community Wildfire Risk Through Development of Utility Mitigation Plans
UT-2	Atrium	Utility	Mahdis Borhani	A Framework for Wildfire Resilience for Utility Planning in the Western Interconnection
VL-1	Prince George's	Vegetation and Landscape Management	Ruiqing "Ryan" Shen and Haejun Park	Formation and Visualization of Wildfire-Induced Soil Water Repellency in Laboratory-Scale Experiments
VL-2	Prince George's	Vegetation and Landscape Management	Subhojit Roy	Can Cool Flame Chemistry Accelerate the Smoldering-to-Flaming Transition in Biomass Fires?
VL-3	Prince George's	Vegetation and Landscape Management	Yiren Qin	Experimental and FDS-Based Assessment of Zone 0 Vegetation-Induced Fire Exposure during Structure-to-Structure Fire Spread

Number		Subject	Authors	Title
MO-1	Atrium	Modeling	Almoutazbellah Kutkut and Ali Tohidi	Numerical Investigation of Structure-to-Structure Fire Spread: Validation Against Full-Scale Experiments
MO-2	Atrium	Modeling	Arithra Debnath Prithu and Ali Tohidi	Mechanistic Insights into Firebrand Deposition over Surface Fuels
MO-3	Atrium	Modeling	Carlos Murillo	Hydrogen Storage Blowout Scenarios as Wildfire Ignition Sources in Wildland-Urban Interface Environments
MO-4	Atrium	Modeling	Chenzhi Ma	Structural-Level Probabilistic Wildfire Risk Assessment: Integrating Physics- and Machine-Based Models for WUI Damage Assessment
MO-5	Atrium	Modeling	Debadrita Das	Modeling the influence of house morphology on the deposition of firebrands in the WUI using a superquadric CFD-DEM Approach
MO-6	Atrium	Modeling	Grayson Bellamy	Assessing Reaction Mechanisms for Engineering Pyrolysis Models of WUI-Relevant Woody Fuels
MO-7	Atrium	Modeling	Janice Coen	Non-Classical Exposure Pathways in Terrain-Adjacent WUI Communities
MO-8	Atrium	Modeling	Joe Hart and Katherine Burgum	The Burgum–Hart Tunnel: A New Experimental Platform for Firebrand Generation and Transport Studies
MO-9	Atrium	Modeling	Jorge Valdivia	Ignition of wood by convection and radiation heating
MO-10	Atrium	Modeling	Jun Meng	Modeling Ambient Polycyclic Aromatic Hydrocarbon (PAH) from Fires over North America
MO-11	Atrium	Modeling	Kuldeep Prasad	Understanding Dynamics of Grassland Fires using Physics-based Models
MO-12	Atrium	Modeling	Mateo Giorgi	Verification and Grid Convergence Tests for the Development of Landscape-Scale WUI/Urban Fire Spread Simulator
MO-13	Atrium	Modeling	Mayowa George	Modeling Moisture Factors in a Grassland Fire Danger Index for Prescribed Fire Management in the Great Plains
MO-14	Atrium	Modeling	Nisha Saharan	Scenario-Based Fire Spread Modeling for WUI Risk Assessment: Application to the 2025 Eaton Fire
MO-15	Atrium	Modeling	Riyaaz Shaik	WUIgniS: A Physics-Informed and Inference-Guided Numerical Ignition and Spread Simulator for Wildland-Urban Interface Fire
MO-16	Atrium	Modeling	Rosie Matthews	A Validated Building-to-Building Fire Spread Model for Wildland-Urban Fire Risk Assessment
MO-17	Atrium	Modeling	Zul Kazeem	Is It There Yet? Mapping Wildfire Spread Pathways and Connectivity for Community Risk Reduction