SUNDAY
19.00hrs Welcome Buffet

MONDAY
08.00 Registration opens

9.15 OPENING
Steve Grayson, Interflam 2025 Chairman

9.25 PLENARY SESSION
Wildfires and Safety at the Crossroads: Global Lessons and the Path Forward
Prof. Guillermo Rein, Imperial College London, UK

10.10	Break		Break		Break
A.	**FACADES** **Chair: Birgitte Messerschmidt, NFPA**	**B.**	**TRANSPORTATION** **Chair: Kees Both,** **Etex Building Performance**	**C.**	**ACTIVE FIRE PROTECTION** **Chair: Sergey Dorofeev, FM**
10.30	Fire Spread in Combustible Inner Corners of Facades *Robert McNamee, A Just, RISE, Sweden (331)*	10.30	Modeling the Fire Growth in a Railcar *Jonathan Hodges, Jensen Hughes USA, A Troff, M Osburg, Brandschutz Consult Ingenieurgesellschaft Leipzig, Germany (175)*	10.30	Fire Protection of Large-Diameter Ducts Using Sprinklers *Hamed Farmahini Farahani, B Ditch, Y Xin, FM Research Division, USA (Mehmed Ulcay presenting) (014)*
10.50	Development of New Dutch Stardard for Mid – and Large-Scale Façade Testing *Paul Hoondert, R v Mierlo, DGMR Consulting Engineers, Netherlands (151)*	10.50	Review of Emergency Egress and Rescue Challenges in Rail Tunnels *Jacqueline Wilmot, Brooks Safety Solutions, USA (332)*	10.50	Simulation of a Water Mist Curtain used as a Radiation Shield *Bjarne P. Husted, Technical University of Denmark/Danish Institute of Fire and Security Technolog, L Laustsen Sørensen, OBH Gruppen, Denmark, L Schiøtt Sørensen, Technical University of Denmark (298)*
11.10	Means for Fire-Safe Green Façade Design on Multi-Storey Buildings *Thomas Engel, Technical University of Munich, Germany (180)*	11.10	Design Considerations for Ensuring Tenability and Safe Evacuation in Urban Roadways Beneath Complex Air-Right Structures *Frank Wang, Jensen Hughes, USA, X Chen, California State University, USA (222)*	11.10	Use of Scaling Laws for Hot Smoke Tests Design *Sylvain Desanghere, Setec, France (112)*
11.30	Validation of a CFD fire simulation model to predict BS 8414 tests for Cladding Systems *Zhaozhi Wang, E Galea, F Jia, J Ewer, University of Greenwich, UK (045)*	11.30	Vehicle Fires: Significant Fire Hazard in Transport Infrastructure *Anja Hofmann, BAM, A Klippel, Otto-von-Guericke Universität Magdeburg, Germany (018)*	11.30	The Impact on ASET of Smoke Alarm Location during House Fires with Varying Ventilation and Growth Rates *Keon Senez, E Weckman, University of Waterloo, P Senez, Senez Consulting/University of Waterloo, Canada (189)*
11.50	Discussion	10.50	Discussion	10.50	Discussion
12.10	Lunch				
A.	**FACADES** **Chair: Johan Anderson, RISE**	**B.**	**TIMBER** **Chair: Robert McNamee, RISE**	**C.**	**ACTIVE FIRE PROTECTION** **Chair: Jason Huczek, SwRI**
13.20	Numerical Reconstruction of the Fbex General Aviles Tower Fire *C Sautot, V Dréan, M Lago, Eric Guillaume, Efectis France (129)*	13.20	Flaming and Smouldering Fires in Mass Timber Compartments: CodeRed Retrospective and Research Gaps *Harry Mitchell, G Rein, R Amin, Imperial College London, P Kotsovinos, J Schulz, Arup, London, UK (192)*	13.20	An Improved Probabilistic Method for Assessing External Fire Spread Risk in the UK *Ian Fu, I Inerhunwa, D Hopkin, OFR Consultants, UK (336)*
13.40	Fire Safety in Sustainable Housing: Insights from Recent Building Envelope Fires *Johan Van Der Graaf, L De Witte, M Kobes, M Leene Netherlands Institute for Public Safety, Netherlands (122)*	13.40	Timber Structural Loads on Trial: Design vs. Experiments in Ambient and Fire Conditions *Antonela Colic, L Bisby, University of Edinburgh, UK, F Wiesner, The University of British Columbia, Canada, M Spearpoint, D Hopkin, OFR Consultants, UK (238)*	13.40	Compressed Air Foam and Water Systems Comparison in Real Scale Fire Tests *W-G. El Tayar, CERN, Switzerland/ Lebanese American University, Lebanon, Oriol Rios, M. Van de veire, M. Leinonen, L. Contini, B. Debrouwere, R. Kallada Janardhan, D. Perovic, CERN, Switzerland (098)*
14.00	Fire Performance Evaluation of Building Integrated Photovoltaic (BIPV) Façade Systems using ANSI/FM 4411 Standard in Inactive and Maximum Power Charged States *Gaurav Agarwal, D Zeng, Y Wang, FM Research Division, USA (325)*	14.00	Reliability of Buildings in Fire: Comparison of Different Typologies of Dwellings with Mass Timber Structure *François Consigny, M Manthey, CSTB, J Kruppa, C Douthe, Université Gustave Eiffel, R Leroy, ENSA, France (205)*	14.00	Interaction of Longitudinal Ventilation and Deluge Fire Suppression Systems in Road Tunnel *Jakub Bielawski, W K Cheung, Building Research Institute, Poland/ Hong Kong Polytechnic University, D Luan, Hong Kong Ploytechnic University/Central South University, China, B Racięga, Baltic Fire Laboratory, Poland, X Huang, Hong Kong Polytechnic University, W Węgrzyński, Building Research Institute, Poland, Poland (173)*
14.20	Experimental and Numerical Investigation of Cedar Façade Flame Spread with Respect to Sidewall, *X Sun, Hideki Yoshioka, T Noguchi, The University of Tokyo, Japan, Y Nishio, Building Research Institute, M Kanemastsu, Tokyo University of Science, Japan B Zhou, China University of Mining & Technology, China (006)*	14.20	Experimental and Numerical Study of Fire Behavior in a Large Compartment with Composite Concrete Timber Ceiling *Bouaza Lafdal, M Heidari, F Robert, CERIB Fire Testing Centre, France (187)*	14.20	Limits of Passive Fire Protection in Unsprinklered Light Hazard Occupancies [or Buildings] *Y Gopala, Y Xin, Sergey Dorofeev, Factory Mutual Insurance Company, USA (081)*
14.40	Investigating the Fire Behaviour of Wooden Slat or Rib Constructions: Influence of Dimensions and Spacing *Konrad Wilkens, P van Hees, Lund University, Sweden, M Pauner, Danish*	14.40	Experimental Investigation on Timber Charring Rate in Standard, and Custom Parametric and Traveling Fire Time-Temperature Curves, *W Węgrzyński, J Bielawski, Piotr Turkowski, Building Research Institute, P Sikora, West*	14.40	Evaluation of Suppression Performance of High-Expansion Foam Fire-Extinguishing Systems for Pure Car and Truck Carriers *Susumu Ota, Japan Ship Technology Research Association, Y Suzuki, S Sakai, Kashiwa Tech*

Time	Track A	Time	Track B	Time	Track C
	Institute of Fire and Security Technology, Denmark (046)		*Pomeranian University of Technology, Poland (278)*		*Co, Y Oka, Yokohama National University, Japan (084)*
15.00	Discussion	15.00	A Review of Factors Affecting the Self-Extinction of CLT Compartments Based on Large-Scale Fire Experiments **Carmen Gorska**, *D Hopkin, OFR Consultants, UK (265)*	15.00	Discussion
15.20	Break	15.20	Break	15.20	Break
A	**FACADES** **Chair: Anja Hoffman, BAM**	**B.**	**TIMBER** **Chair: Robert McNamee, RISE**	**C**	**ACTIVE FIRE PROTECTION** **Chair: Gaurav Agarwal, FM**
15.40	Correlating Cone Calorimeter and SBI Fire Test Results for ETICS with a range of Material Combinations **Giombattista Traina,** *Istituto Giordano, Italy, U Rojas Alva, A Jug, FRISSBE, Slovenian National Building and Civil Engineering Institute (ZAG), Slovenia, P Cancelliere, Italian Fire Rescue and Service (CNVVF), Italy, A Lucherini, FRISSBE, Slovenian National Building and Civil Engineering Institute (ZAG), Slovenia/FAMNIT, University of Primosrska, Slovenia (094)*	15.40	Timber Session Discussion	15.40	Design Approaches for Oxygen Reduction Systems for Warehouse Storage Applications **Patrick van Hees**, *J Aström, Lund University, Sweden, M Nilsson, Zurich Insurance Group, Switzerland, B Meacham, Crux Consulting, USA (041)*
16.00	Assessment of Fire Performance of Facades in a Round Robin using the European Approach **Johan Anderson**, *J Sjostrom, RISE, Sweden, R Chiva, Efectis, France, F Dumont, University of Liege, Belgium, O Lalu, BRE, UK, A Hofmann, BAM, Germany, P Toth, EMI, Hungary (038)*	**B.** / 16.00	**INVESTIGATION** **Chair: Marcelo Hirschler, GBH International** Representative Large-Scale Tests of a Three Storey Balcony Fire Incident **Michael Spearpoint**, *D Hopkin, OFR Consultants, UK, K Chotzoglou, Efectis, UK, D Morrisset, University of Queensland, Australia (035)*	16.00	Gravity Smoke Vents in Storage Occupancies **Alex Krisman**, *Y Gopala, Y Wang, Y Xin, S Dorofeev, FM Research Division, USA (049)*
16.20	Innovative Strategies for Rectifying Combustible Cladding in Existing Buildings **Jonathan Barnett**, *A Estacio, J Millar, FSFPE FIEAust, Australia (062)*	16.20	Influence of Architectural Finishes on Fire Pattern Development **M Binte Mannan**, *N Zefeng Lei Cai, S I Stoliarov, Shuna Ni, University of Maryland, USA (273)*	16.20	Re-Evaluation of Selected Chemicals with regard to Recommended Firefighting Foams – Updating the ChemInfo Database **Julia Backhaus,** *D Schmitz, R Goertz University of Wuppertal, M Wachsmuth, German Environment Agency - Umweltbundesamt, Germany (163)*
16.40	Discussion		Discussion		Discussion
16.50 – 17.50	**POSTER SESSION A**				
19.00	**Social Evening – Founders Building**				
	TUESDAY				
A.	**WILDLAND FIRES** **Chair: Sara McAllister, USDA Forest Service**	**B.**	**FIRE SAFETY ENGINEERING** **Chair: Chris Jelenewicz, SFPE**	**C.**	**CHEMISTRY/FLAME RETARDANTS** **Chair: Serge Bourbigot, Centrale Lille Institut - IUF**
8.40	Preventing Wildfire Disasters: It Starts with Design **Birgitte Messerschmidt**, *M Steinberg, NFPA, USA (099)*	8.40	A Probabilistic Model for the Thermal Response of Gypsum Wallboard **Mark McKinnon**, *M J DiDomizio, G T Bellamy, D Chaudhari, UL Research Institutes, USA (251)*	8.40	Fire Retardancy Featuring Sustainability: Food for Thought between Fake Fiction and Future **Bernhard Schartel**, *BAM, Germany (022)*
9.00	Wildfire Directional Indicators – The Science and the Practice *V Babrauskas, Fire Science and Technology Inc,* **Keith Parker**, *Parker Fire Services Consulting, USA (025)*	9.00	Cybernetic Design in Fire Engineering: Mall Space Ecosystem **Fabio Alaimo Ponziani**, *A Tinaburri, Ministry of the Interior, Italy (004)*	9.00	Fire Behavior of Intumescent Materials in O2 Rich Environment **Serge Bourbigot**, *University of Lille/Institut Universitaire de France, J Sarazin, University of Lille, France (056)*
9.20	Wildland Urban Interface Codes **Marcelo Hirschler**, *GBH International, USA (047)*	9.20	Implementing Fire Safey Engineering in the Built Environment: Staus and Needs **Francesca Sciarretta**, *A Athanasopoulou, G Tsionis, S Dimova, European Commission - JRC.E.3, Italy (324)*	9.20	The ongoing debate about Flame Retardants, Fire Safety, Smoke Emissions and Toxicity **Adrian Beard**, *PINFA, Belgium/Clarient, Germany, M Butler, WilliamBlythe, UK, T Esche, BASF, Switzerland, S Kroon, ICL Industrial Products, The Netherlands (253)*
9.40	Predicting Heat Flux from Firebrand Piles to Horizontal Surfaces **Brian Lattimer**, *S Wong, Virginia Tech, J L. Hodges, Jensen Hughes, USA (064)*	9.40	The Parallelism Method - A Simple Methodology to Improve the Fire Safety of a Furnished Room **Anna Bergstrand**, *B Sundström, R McNamee, RISE, Sweden (333)*	9.40	Influence of Cladding and Insulation Materials on Façade's External Fire Spread **Kate Nguyen**, *RMIT University, Australia (244)*
10.00	Discussion	10.00	Discussion	10.00	Discussion
10.20	Break	10.20	Break	10.20	Break
A.	**WILDLAND FIRES** **Chair: Andrea Kippel, Otto-von-Guericke-Universität Magdeburg**	**B.**	**COMBUSTION/TOXICITY** **Chair: David Purser, Hartford Environmental Research**	**C.**	**FIRE DYNAMICS** **Chair: Marc Janssens, SwRI**
10.40	Simulation of Firebrand-Driven Wildland-Urban Interface (WUI) Fire Spread at Landscape-Scale **Arnaud Trouve**, *Y Qin, University of Maryland, D Purnomo, M Theodori, M Zamanialaei, M Gollner, University of*	10.40	Characterization and Assessment of Smoke Emissions from Smouldering Forest Fires: A Combined Experimental and Numerical Approach **Kira Piechnik**, *A Klippel, Otto-von-Guericke-Universität Magdeburg, A Hofmann, BAM, Germany (027)*	10.40	High Resolution Predictions of the Sample Heat Flux during a Cone Calorimeter Test **Jason Floyd**, *UL Research Institutes, J Hodges, Jensen Hughes, USA (028)*

	California, C. Lautenberger, CloudFire, USA (296)				
11.00	Burning Rates of Individual Firebrands on Shredded Paper Beds **Savannah Wessies**, *J C. Yang NIST, USA (185)*	11.00	Emissions Produced From Burning Wood in Controlled Oxygen Atmospheres **Evalyne Arinaitwe**, *K Wilkens, M McNamee, J Rex, V Malmborg, J Pagels, Lund University, Sweden (235)*	11.00	New Methods to Predict the Burning Rate of Unconfined Liquid Fuel Spill Fires **Jason Huczek**, *Marc Janssens, Southwest Research Institute, USA (077)*
11.20	Vulnerability Thresholds for Shutters Exposed to Vegetation Fire in WUI **Camille Luciani**, *V Tihay-Felicelli, F Morandini, A Pieri, P-A Santoni, T Barboni, Université de Corse, France (034)*	11.20	The use of Quasi-Steady State Experimental Methods for the Purpose of Measuring Chemical Yields for use in Fire Hazard Assessment **Robert Bray**, *Ulster University, A Singh, Worcester Polytechnic Institute, USA, S Tretsiakova- McNally, J Zhang, Ulster University, UK (293)*	,11.20	Automated characterization of radiant heat sources exemplified by the H-TRIS **Michael Plagge**, *Danish Institute of Fire and Security Technology (DBI), Denmark and Lund University, Sweden, D Lindsay, DBI, Denmark, B Husted, DBI/Technical University of Denmark (DTU), Denmark, M Jorgensen, DTU, Denmark, G Fontaine, University of Lille, France, S Bourbigot, University of Lille/Institut Universitaire de France, France, P van Hees, Lund University, Sweden (229)*
11.40	Fire Spread Hazards in Humanitarian and Informal Settlements: A Large-Scale Experimental Study **Sam Stevens**, *D Antonellis Kindling Safety, UK, A van Wyk, Kindling Safety, UK, /Stellenbosch Unviersity, South Africa, David Rush, University of Edinburgh, UK (193)*	11.40	Gas Emissions from Smoldering Bio-Based Insulation: Experimental Study of the Role of Wood Fiber Board Density *L Hammad, CSTB/ IMT Mines Alès, V Marchetti, S Moularat, B Ismail, R Anton, CSTB, France, R F. Milkalsen, RISE Fire Research, Norway* **Placide Uwizeyimana**, *C Lacoste, R Sonnier, IMT Mines Alès, France (247)*	11.40	Addressing Transient Phenomena in Uncertainty Budgets for Heat Release Rate Measurement Systems **Bart Sette**, *Jensen Hughes, Belgium (301)*
12.00	Role of Bulk Density and Ignition Location on Burning Dynamics of Surrogate Vegetative Fuel *Eric Mueller**, K Sung, A Hamins, R McDermott, NIST, USA (320) (Savannah Wessies to present)*	12.00	The Nature of Toxicants Moving Across the Layers of Fire Suits **Svetlana Tretsiakova- McNally**, *Y K Chen, J Zhang, A Nadjai, Ulster University, UK (118)*	12.00	Fire Behaviour and Over-Pressure Events in Combustible Compartments **Aatif Khan**, *B Leslie, H Jones, K Nuzum, Z Conventry, University of Canterbury,New Zealand, C Fleischmann, UL Research Institutes, USA (086)*
12.20	Discussion	12.20	Discussion	12.20	Discussion
12.40			Lunch		
A.	**WILDLAND FIRES** Chair: Brian Lattimer, Virginia Tech	**B.**	**PYROLYSIS** Chair: Matthew Hoehler, NIST	**C.**	**FIRE DYNAMICS** Chair: Jason Floyd, UL Research Institutes
13.50	Experimental Investigation of Smouldering Behaviour in Natural and Synthetic Peat Samples **Hafizha Mulyasih**, *G Rein, Imperial College London, UK, D Tarasi, A Voulgarakis, Imperial College London/Technical Universtiy of Crete, Greece (190)*	13.50	Uncertainty Quantification and Propagation of Pyrolysis Kinetics Parameters used in Fire Models **Morgan Bruns**, *P Canez, St. Mary's University, I Leventon, NIST, USA (207)*	13.50	A Preliminary Numerical Assessment of the Interaction between ESFR Sprinklers and Smoke Control Systems In High-Rack Warehouses **Borja Rengel**, *V Drean, E Guillaume, Efectis, France (130)*
14.10	An Experimental Investigation into the Transition from Thin to Thick Fuels **Sara McAllister**, *M Finney, USDA Forest Service, USA (079)*	14.10	Measurement of the Average Molecular Formula of Gaseous Pyrolyzates Produced by Combustible Solids **Isaac Leventon**, *A Tripi, R Greene, K McGrattan, NIST, USA (307)*	14.10	Leveraging AI modelling for FDS with Simvue: monitor and optimise for more sustainable simulations **James Panayis**, *M Field, V Gopakumar, A Lahiff, K Zarebski, A Abraham, United Kingdom Atomic Energy Authority,UK, J Hodges, Jensen Hughes, USA (168)*
14.30	Wildfire Emissions from European Boreal Fuels: Effects of Fuel Type and Moisture Content **Robert Svensson**, *J Sjöström, F Vermina Plathner, A Sandinge, P Blomqvist, RISE, Sweden, E Arinaitwe, M McNamee, Lund University, Sweden (335)*	14.30	Influence of Experimental Conditions and Reaction Mechanism for Modeling of the Thermal Decomposition of Woody Biomass **Grayson Bellamy**, *S Stoliarov,University of Maryland, M McKinnon, UL Research Institutes, USA (289)*	14.30	The Radiance Method: For Fine Mesh Smoke Measurements **Jennifer Ellingham**, *E Weckman, University of Waterloo, Canada (182)*
14.50	Experimental Analysis of Fire Behavior in Pine Forests and Agricultural Fields: Large-Scale Tests conducted within the TREEADS Project **Andrea Klippel**, *L Heydick, K Piechnik, F Köhler, Otto-von-Guericke-Universität Magdeburg, A Hofmann, H Wu, B Klaffke, BAM, Germany (033)*	14.50	Measurement of the Smoldering and Flaming Heats of Combustion of Vegetative Fuels **Isaac Leventon**, *K De Lannoye, R Greene, NIST, USA (308)*	14.50	CFD Predictions of Fire Spread over Wood Cribs in Large Open-Plan Compartments under Two Different Ventilation Conditions **Chang Liu**, *University of Edinburgh, X Dai, University of Liverpool, M Ming, S Welch, University of Edinburgh, UK (302)*
15.10	Using Ensemble Modelling Methologies in Probabilistic Trigger Boundaries to Plan Wildfire Evacuation **Nikolaos Kalogeropoulos**, *H Mitchell, G Rein, Imperial College London, UK (097)*	15.10	Impact of Surface Fouling on Schmidt-Boelter Heat Flux Gauge Measurements **Matthew J DiDomizio,** *N G Sauer, B Morrissey, N W Dow, UL Research Institutes, USA (259)*	15.10	Model for Firebrand Heat and Mass Transfer Using CFD-DEM Approach **Debadrita Das**, *F E Garcia, A Jeffers, University of Michigan, USA (306)*
15.30	Discussion	15.30	Discussion	15.30	Ignition behavior of Hydrogen and its mixtures with Ammonia under varying conditions **Dieter Gabel**, *U Krause, Otto-von-Guericke University Magdeburg, Germany (026)*
15.50	Break	15.50	Break	15.50	Break
A.	**RISK** Chair: Brian Meacham, Crux Consulting, USA	**B.**	**CHEMISTRY/FLAME RETARDANTS** Chair: Bernhard Schartel, BAM, Germany	16.10	Fire Dynamics Session Discussion
16.10	Integrating Diverse Perspectives for Safer Fire Designs: The Case for Convergence Research **Brian Meacham**, *Crux Consulting, USA,*	16.10	Detailed Fire Chemistry With Fire Dynamics Simulator **Jason Floyd**, *UL Research Institutes, C Paul,*		

Time	A	Time	B		C
	Sandra Vaiciulyte, Universidad Nacional Autonoma de Mexico (008)		*NIST/The George Washington University, R McDermott, NIST, USA (023)*		
16.30	Environmental Benefits of Early Fire Detection & Suppression ***Margaret McNamee***, *R McNamee, Lund University, Sweden, B Meacham, Crux Consulting, USA, F Amon, RISE, Sweden (016)*	16.30	Understanding Fuel Transport Through Foam: From Nanoscale Interactions to Macroscale Dynamics *A Ates, R Qiao, **Brian Y Lattimer**, Virginia Tech, USA, M D Madsen, T E Long, Arizona State University, USA (210)*	**C.**	**EDUCATION** **Chair: Elizabeth Weckman, University of Waterloo**
				16.30	Fire Resilience of Physical Civil Infrastructure Conference: Research Needs from the US *E Fischer, N Elhami-Khorsani, R Emberley, T Gernay, A Kimball, **Birgitte Messerschmidt**, S Quiel, Oregon State University, USA (263)*
16.50	Development of a National-Scale Interoperable Fire Incident Data Platform ***Craig Weinschenk***, *J D Evans, UL Research Institutes, USA (292)*	16.50	Characterization of Species Yields for PMMA Burning at Constant Equivalence Ratios in a Fire Propagation Apparatus ***Farnaz Beygi Khosroshahi***, *F Raffan-Montoya, S I Stoliarov, University of Maryland, USA (078)*	16.50	Innovative Fire Safety Engineering Education Based on Design Thinking Method ***Dorota Brzezinska***, *M Brzezinska, M Brzezinski, Lodz University of Technology, Poland (264)*
17.10	Fire Safety of Lithium-Lead Component Room in Demo Fusion Power Plant ***Tuula Hakkarainen***, *T Korhonen, N Verma, VTT Technical Research Centre of Finland, Finland (234)*	17.10	Screening Flame Spread and Thermal Protection Performance of Fabrics Using Milligram-Scale Samples *Thomas Roche, **Fernando Raffan-Montoya**, S I Stoliarov, University of Maryland, A B Morgan, University of Dayton Research Instiitute, S kulkarni, R Nagarajan, University of Massachusetts-Lowell R Mosurkal, University of Massachusetts-Lowell/US Army Combat Capabilities Development Command, USA (322)*	17.10	An Exploratory Study of Social Vulnerability Assessment in Support of Fire & Rescue Service (Frs) Response ***Camille Geeraert***, *M McNamee, L Hovart, Lund University, F Amon, RISE, Sweden (159)*
17.30	Discussion	17.30	Discussion	17.30	Discussion
17.50	Conference Close Day 2				
19.00	Social Evening – Ascot Racecourse				

WEDNESDAY

Time	A	Time	B		C
A.	**TESTING** **Chair: Sean Gregory, FTT**	**B.**	**MATERIALS** **Chair: Anne Elise Steen-Hansen, RISE Fire Research**	**C.**	**HUMAN BEHAVIOUR IN FIRE** **Chair: Karen Boyce, Ulster University**
8.40	Evaluation of the Effectiveness of Roof Coating for Mitigating Rooftop Photovoltaic Panel Fire ***Dong Zeng***, *FM Research Division, T Rodrique, FM, D Boardman, FM Approvals, USA (258)*	8.40	Evaluation of Surface Coatings for Experiments in the Fire Propagation Apparatus ***Gaurav Agarwal***, *D Zeng, Y Wang, FM Research Division, USA (326)*	8.40	Comparing Behavioural Data Collection Methods for Wildfire Evacuation Drills ***Enrico Ronchi***, *A-K Dugstad, Lund University, Sweden, M Berthiaume, N Benichou, Max Kinateder, NRCC, Canada, P Geoerg, Association for the Promotion of German Fire Protection, /Johanniter Univ of Applied Sciences, Germany, S Gwynne, Lund University/University of Greenwich, UK, Hui Xie, University of Greenwich, K Kubose-Peutz, Movement Strategies, UK, A Kimball, Fire Protection Research Foundation, USA (036)*
9.00	Fire Protection of Stockers in Semiconductor Facilities ***M. Sitki Ulcay***, *FM Research, USA (321)*	9.00	Smoldering-to-Flaming Transition in Wood Fiber Insulation: A Controlled- Atmosphere-Cone-Calorimeter Study ***Patrick Sudhoff***, *Danish Institute of Fire and Security Technology, Denmark, J Åström, Lund University, Sweden (116)*	9.00	A Framework for Traffic Evacuation Modelling in Wildfire Scenarios ***Arthur Rohaert***, *J Wahlqvist, C Johnsson, E Ronchi, Lund University, Sweden (052)*
9.20	An Analysis of Sprinkler Performance from Fire Tests of 18650 Lithium-Ion Cells in Plastic Trays Within Rack Storage Test Configurations ***Benjamin Gaudet***, *UL Solutions; Phil Friday, The Reliable Automatic Sprinkler Co., USA (262)*	9.20	Repeatability of Microscale Combustion Calorimeter Data for Layered Materials ***Marc Janssens***, *J Huczek, Southwest Research Institute, USA (076)*	9.20	Evacuation Challenges and Design Considerations for Inward Opening Doors in Fire Emergencies *Martin Forssberg, **Alexander M Elias**, J Lundin, Brandskyddslaget, Hakan Frantzich, Lund University, Sweden (071)*
9.40	ASTM E3367: Conception and Development of a New Standard Test based on Cone Calorimetry ***Isaac Leventon***, *A Sharma, Ickchan Kim Mauro Zammarano, NIST, USA (188)*	9.40	Evaluating Variability in the Fire Behavior of multiple version of commercially available PMMA and Identifying a Replacement MaCFP-PMMA ***Karen De Lannoye***, *I Leventon, M Heck, NIST, USA (191)*	9.40	Elderly Evacuation Choices: Stairs, Escalators, and Elevators in Department Store Fires ***Yoshikazu Deguchi***, *National Institute for Land and Infrastructure Management, T Moribe, H Yoshioka, University of Tokyo, Japan (053)*
10.00	Discussion	10.00	Discussion	10.00	Discussion
10.20	Break	10.20	Break	10.20	Break
A.	**ELECTRIFICATION** **Chair: Konrad Wilkens, Lund University**	**B.**	**MATERIALS** **Chari: Eric Guillaume, Efectis France**	**C.**	**HUMAN BEHAVIOUR IN FIRE** **Chair: Rosaria Ono, Technological Research Institute of Sao Paulo State**
10.40	Enhancing the Fire Safety of Stationary Lithium-Ion Battery Systems: Solutions for Managing Thermal Runaway Risks ***Tomohiro Kawai***, *N Takata, Mitsubishi Chemical Corporation, H Yoshioka, The University of Tokyo, Japan (037)*	10.40	Composite Fence Flammability and Wind-Driven Fire Spread ***Erik Johnsson***, *K Butler, NIST, USA (261)*	10.40	KISS Nightclub Fire – An Analysis of a Survey Answered by Survivors ***Rosaria Ono***, *W Negrisolo, University of Sao Paulo, F Vittorino, Technological Research Institute of Sao Paulo State, Brazil (177)*

11.00	Investigation and comparison of the Thermal Runaway Characteristics of Sodium-ion batteries and Li-ion batteries depending on the State of Charge level *Florian Köhler*, *K Amano, U Krause, Otto-von-Guericke-University Mageburg, Germany (139)*	11.00	Fire Dynamics and Surface Oxygen Measurement for Vertical, Buoyancy-driven Turbulent Fire Spread *Dushyant M Chaudhari,* **Parham Dehghani,** *UL Research Institutes, USA (279)*	11.00	When to Stay Put and when to Go: Warnings, Escape Behaviour, Smoke Exposure and Survivability in the Grenfell Tower Fire *David Purser, Hartford Environmental Research /University of Central Lancashire, UK (181)*
11.20	Fire Test Bench for Simulating EV Battery Thermal Runaway Conditions *Igor B Bezerra Rego*, *G Fontaine, University of Lille, S Bourbigot, Univeristy of Lille/ Institut Universitaire de France, France (166)*	11.20	Experimental Investigation of Burning Liquids in Reduced Oxygen *Joakim Astrom*, *P van Hees, M Runefors, N Johansson, Lund University, Sweden (060)*	11.20	Experimental Study on Stairwell Evacuation Dynamics with Low-Speed Evacuees *Manabu Tange*, *Shibaura Institute of Technology, N Funaki, J Yamaguchi, Obayashi Corporation, T Sano, Waseda University, Y Ohmiya, Tokyo University of Science, Japan (221)*
11.40	Revisiting LFP Li-Ion Battery Fire Risk Profile *Caroline Gaya*, *A Bordes, A Lecocq, J Lesage, T Delbaere, C Rabette, G Marlair, INERIS, France (088)*	11.40	Effect of Oxygen Concentration on the Fire Behaviour, Gas and Aerosol Production of an Assembly of Cross-Laminated Timber and Wood Fiber *Gaëlle Fontaine*, *Centrale Lille Institut, A Lamande, University of Paris-Est/University of Lille, V Marchetti, University of Paris-Est, S Bourbigot, Centrale Lille Institut/Institut Universitaire de France, France (147)*	11.40	Evaluating Donning Performance of Thermal Protective Immersion Suits: Recommended Applications for Passenger Ship Evacuation Models *Ria Bruenig*, *S Erlanda, H Oltedal Western Norway University of Applied Sciences (HVL), E Galea, Western Norway University of Applied Sciences (HVL) /University of Greenwich, UK, B Batalden, Western Norway University of Applied Sciences (HVL)/ UiT The Arctic University of Norway, S Deere, University of Greenwich, UK (061)*
12.00	Engineering Safety in EVs: Analysis of Occupant Safety using a multifunctional Real-Scale Model Car *Tim Rappsilber*, *S Krüger, T Raspe, BAM, Germany (164)*	12.00	Sensitivity Study of Input Parameters in Modeling Flame Spread in Bench-Scale Experiments Using the SPyro Model in FDS *Anna Troff*, *M Osburg, Brandschutz Consult, Germany, A Belt, L Arnold, Forschungszentrum Jülich, Germany, J Hodges, Jensen Hughes, USA (178)*	12.00	Integrating Wildfire and Evacuation Models for People- Centric Hazard Mapping *Nan Xiang*, **Helena Morris**, *A Valencia, B Evans, P Thompson, University of Canterbury, New Zealand (137)*
12.20	Discussion	12.20	Discussion	12.20	Discussion
12.40	Lunch				
13.50	POSTER SESSION B				
A.	**ELECTRIFICATION** Chair: Konrad Wilkens, Lund University	**B.**	**ARTIFICIAL INTELLIGENCE** Chair: Patrick van Hees, Lund University	**C.**	**HUMAN BEHAVIOUR IN FIRE** Chair: Enrico Ronchi, Lund University,
14.50	Fire-Safe Design for Zero-Emission Bus Depots and Public Transport Hubs: Assessing Risks and Mitigation Strategies *Margrethe Kobes*, *J Reinders, M Spoelstra, Netherlands Institute for Public Safety (024)*	14.50	The Ignition Frequency of Structural Fires in Singapore 2012-2023 A Deep Neural Network Approach *Samson Tan*, *Staarch, Singapore, T T Teoh, Staarch/ Nanyang Technological University, Singapore, P Joseph, K Moinuddin, Victoria University, Australia (012)*	14.50	Effect of Lighting Conditions in Evacuation Routes on the Visibility Distance for Exit Light *Yuki Akizuki*, *K Hoshino, Y Hori, University of Toyama, H Yamaguchi, Y Deguchi, National Institute for Land and Infrastructure Management, Japan (314)*
15.10	Charaterizing EV vs ICE Hazards in Parking Structures: Results of Full-Scale Testing *Victoria Lutz*, *NFPA Fire Protection Research Foundation, USA, K S Arsava, RISE, Norway, A Lonnermark, RISE, Sweden (091)*	15.10	On the Use of Machine Learning for Detection of Lithium-Ion Battery Early-Stage Thermal Runaway *Andy Tam*, *I S Emon, H Fang, A Putorti Jr, NIST, USA, J Chen, J Deng, Xi'an University of Science and Technology, China (309)*	15.10	An Examination of Phased Evacuation in Multi-Purpose Residential Buildings, *Yuyao Xue*, *M Spearpoint, OFR Consultants, UK, E Ronchi, Lund Univesity, Sweden (072)*
A.	**CODES** Chair: Tuula Hakkarainen, VTT Technical Research Centre of Finland	15.30	AI-Driven Identification of Fire Hazards in CERN Accelerator Complex *A Apollonio, T Cartier-Michaud, Reshape Systems, L Contini, B Debrouwere, F Consanego, D Perovic, S La Mendola, E Ø Iveland,* **Oriol Rios**, *CERN, Switzerland (287)*	15.30	Machine Learning for Fire Evacuation Assessment in Road Tunnel Fires *Arturo Cuesta*, *J Gonzalez-Villa, D Alvear, University of Cantabria, Spain, E Ronchi Lund University, Sweden, O Uhlik, Brno University of Technology, Czech Republic (179)*
15.30	The 9 mm Magic Number and the Implications for Timber Cladding in Fire *Danny Hopkin*, *M Spearpoint, Y Kanellopoulos, C Mayfield, OFR Consultants, UK (146)*				
15.50	A Round-Robin Study from 12 UK Fire Services pon the Fire Safety of Open-Sided Car Parks: Is Current Guidance Adequate? *Morvarid Koohkherzri*, *S Waring, , M Manes, X Dai,University of Liverpool, C Hopkin, University of Liverpool/Ashton Fire, M Houghton, Ashton Fire, L Seal, London Fire Brigade, S Welch, University of Edinburgh, R Clark, NRCC, UK(209)*	15.50	Discussion	15.50	Experimental Investigation of Strategies Aiming at Effective Fire Evacuation using Evacuation Alert System in Single and Dual Staircase High-Rise Residential Buildings *S Ndlovu, J Fowler, G Catelblanco, K Khan, T Graham, T Bradford, C L Liyanage,* **Eleni Asimakopoulou**, *University of Central Lancashire, UK (150)*
16.10	Discussion			16.10	Discussion
16.30	Final Wrap-Up				
16.45	Conference Close				
	Thank you for coming and have a safe journey home.				

POSTER SESSION A

A1

ACTIVE FIRE PROTECTION

Control Effect of Water Film Flow on Temperature Rise in Glass under Heating Condition of Opening Fire Plume
Shuo Zhang, *Fujita Corporation, S Sonobe, Y-H Wang, Y Ohmiya, Tokyo University of Science, Japan*

The Current State of Early Deep-seated Fire Detection for Waste and Recycling Materials
Amy Grainger, *Kiwa Fire Safety Compliance, UK, S Ndlovu, C Liyanage, K Williams, E Asimakopoulou,T L Graham, University of Central Lancashire, UK*

Embodied Carbon of Passive Fire Protection in Timber Buildings
Mansoure Dormohamadi, *Aalborg University and DBI, K Kanafani, H Birgisdottir, E Hoxha, Aalborg University, A Dragsted, K Livkiss, DBI - Danish Fire and Security Institute, Denmark*

FACADES

The performance of Open State Cavity Barriers in ventilated façades: an experimental study
Soukayna Azdad, *K. Chotzoglou, T Fateh, Efectis, UK, A Robb, BENX, UK*

A Decision-making Framework for Fire Safe Use of Vertical Greenery Systems
Carmen Guchelaar, *Delft University of Technology/DGMR Consulting Engineers, P Hoondert, B Peters, DGMR Consulting Engineers, Netherlands*

Indexing the Fire Hazard of External Wall Cladding Systems
Cameron MacLeod, *A Law, University of Edinburgh, UK, N Butterworth, Design Fire Consultants, UK*

The Influence of the Type of Spacer Bar used in the Insulated Glazed Unit on the Behavior of the Glazed Constructions in Fire Conditions
J Kinowski, **Bartłomiej Sedłak**, P Sulik, *Building Research Institute, Poland* (239)

Improvement of the Fire Resistance of Laminated Glass Beams
Maximilian Moeckel, *TUD Dresden University of Technology, Germany*

INVESTIGATION

Gas Dispersion and Explosion Simulation. A Forensic Case Study
Alberto Tinaburri, *F A Ponziani, National Fire Corp, Italy*

TIMBER

Embodied Carbon Assessment of Active Fire Protection in Multi-Storey Residential Buildings: A Case Study Approach
Mansoure Dormohamadi, *Aalborg University/DBI, K Kanafani, H Birgisdottir, E Hoxha, Aalborg University, A Dragsted, P Vargas Rolón, DBI, Denmark*

Residual Withdrawal Strength of Self-Tapping Screws Inserted into Glued Laminated Timber After Fire Test
Riho Onojima, *Y Miyazu, Y Ohmiya, Y Wang, Tokyo University of Science, Y Sato, Y Tomita, K Masuda, Fujita Corporation, Japan*

Influence of Glass Breakage on Ventilation and Fire Behaviour in Large Timber Compartments: A Numerical Simulation Study
Deonisius Pradipta Aprisa, *Norwegian University of Science and Technology (NTNU), A Saeter Boe, L Jiang, RISE Fire Research, Norway, K Leikanger Friquin, SINTEF Community, Anne Steen-Hansen, NTNU, RISE Fire Research, Norway*

Modelling Thermal Deformation of a Steel Truss
Katie Chin, *C Jeanneret, J Gales, York University, Canada, R Al-Hamd, Albertay, UK, P Kotsovinos, University of Petras, Greece, Canada*

A2

FSE

Digital Workflows through OpenBIM for Fire Safety Engineering
Asim Siddiqui, **Chan Chanthan**, *P Lawrence, University of Greenwich, UK, M Spearpoint, OFR Consultants, UK*

Validation of FDS for Critical Air Velocities in Enclosure Openings
Joel Jacobsson, *Southern Alvsborg Fire Service, Sweden/ Lund University, Sweden, M Runefors, J Wahlqvist, Lund University, Sweden, H Ingason, RISE/Lund University, Sweden*

Performance-Based Study of Insulation Failure in Fire-Rated Walls with Steel Beam Penetrations using FEM
I Inerhunwa, **Yifan Li**, *S Subramaniyan, A Mezaraups, J Harkin, OFR Consultants, UK*

Quantitative Evacuation Assessment Model – From Fire Science to Engineering
Razieh Khaksari Haddad, *WSP, UK*

Structural Response of Steel-Composite Structures in Under-Ventilated Travelling Fires: Numerical Insights from the BST/FRS 1993 Fire Tests
Zhuojun Nan, *Delft University of Technology, Netherlands, Xu Dai, University of Liverpool, UK*

TESTING

New Standard Upholstered Furniture Fire Tests
Marcelo Hirschler, *GBH International, USA*

Heat Release Rate Evaluation of Aircraft Cabin Materials: A New Representative Method
Kimkévin HA, *University of Lille/Safran Composites, P Tranchard, Airfoils Advanced Solutions, P Bachelet, University of Lille, A Ramgobin, Saftan Seats, M-O Auge, Safran Composites, S Bourbigot, University of Lille/Institute Universitaire de France, France*

Differences in Total Heat Flux Meter Calibration Scales among different Laboratories
Chiel Donkers, *Hukseflux Thermal Sensors, Netherlands*

LED Replacement for White Light Smoke Measurement Halogen Filament Bulb
Sean Gregory, *A Green, A Watson, Fire Testing Technology, UK*

Fire Safety of Roofs with Photovoltaic Systems: A Synthesis of Methodologies and Insights
Giombattista Traina, *Istituto Giordano, Italy, F Parolini, University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland, M Cunegatti, F Ragiotto, ANPE, G Manzini, RSE, P Cancelliere, Italian Fire Rescue Service, Italy*

Fire Safety Testing: Internal fire exposure for BIPV/BAPV Products
Nerea Otano-Aramendi, *X Olano-Azkune, A Odriozola-Alberdi, TECNALIA, Spain, O Aurrekoetxea-Arratibel, TECNALIA, Spain/ University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland, F Parolini, P Bonomo, N J Abdul (SUPSI), Switzerland*

Impact of an External Combusting Surface on Methanol Pool Fire Regression Rate
Ethan Philion, *A Davidson, J Gales, York University, J Dabrowski, V Gupta, B Weckman, University of Waterloo, Canada*

Should Fire Tests be Conducted with Photovoltaic Modules in Active Operation?
Olaia Aurrekoetxea-Arratibel, *TECNALIA/ University of the Basque Country UPV/EHU, N Otano-Aramendi, X Olano-Azkune, D Valencia-Caballero, I Vidaurrazaga, TECNALIA, X Oregi, University of the Basque Country UPV/EHU, Spain*

A3

TRANSPORT

Engineering Method to Calculate the Heat Radiation on Façades due to a Pool Fire
Kevin Terlouw, *DGMR Consulting Engineers, The Hague, Netherlands, P Robijn Meijers. DGMR Consulting Engineers, Arnhem, Netherlands*

Experimental Investigation of the Effect of Ceiling Geometry and Slope on Smoke Characteristics and Gas Temperature in Tunnels
Simon Cox, *E Asimakopoulou, T Bradford, University of Central Lancashire, UK*

FIRE DYNAMICS

Influence of Wind on Building Fires and its Consideration in Fire Modeling: A CFD Case Study of an Atrium
Andrea Klippel, *C Lindner, M Nowak, F Kohler, Otto-von-Guericke Universität Magdeburg, Germany*

An Industrial-Scale CFD Model for the Fire Growth and Suppression of Plastic Commodities
Alex Krisman, *FM Research Division, USA*

In-Situ Measurements of a Retrofit Stairwell Pressurization Smoke Control System of an Office Building
Kazunori Harada, *D Nii, Kyoto University, Japan*

Potential of Fast Fire Spread in Large Compartments with Exposed Timber
Andreas Saeter Boe, *D Aprisa, K Hox, RISE Fire Research, Sweden*

A Novel Framework in Verifying Mesh Optimisation in Fire Dynamic Simulator
Afrin Basit, *Kings College London, UK*

Apartment Door Boundary Condition for Fire Field Modelling
Stewart Miles, *Kiwa Fire Safety Compliance, UK*

Predictive Simulation of Fire Dynamics in Mass Timber Compartments
Topi Julin, *Jensen Hughes, Finland*

Development of BIM-based Coupled Fire and Evacuation Simulation Model using the Zone Model
Ryun-Seok Oh, *C Y Lee, J Jeon, J-H Choi, Pukyong National University, G Kim, Cospec Innolab, C-H Hwang, Daejeon University, S Choo, Kyungpook National University, South Korea*

A Unified Framework for Thermal Radiation Modeling: Fully Coupled RTE Solver Incorporating Gas and Condensed Phase Spectral Models
Soroush Rashidzadeh, *S Hostikka, Aalto University, Finland, F Alinejad, University of Maryland, USA*

Parametric Analyses of Environmental Conditions on Horizontal Evacuation Routes taking into Account Various Fire Safety Systems - Smoke Ventilation, Sprinkler System, Mist System
Grzegorz Krajewski, *W Wegrzynski, J Bielawski, Building Research Institute, Poland*

RISK

Fire Insurance Rating and Fire Risk Indexing: A Short History
Vasilis Koutsomarkos, *A Law, HSE/University of Edinburgh, UK*

Challenges in the Development of Experimental Methods for Niche Risk Scenarios
Alastair Temple, *J Anderson, F Kahl, P Otxoterena, H Sokoti, RISE, Sweden*

POSTER SESSION B
B1

COMBUSTION/TOXICITY

Generation of Polycyclic Aromatic Hydrocarbons from a Self-Extinguished Propane Diffusion Flame
Ryan Falkenstein-Smith, A Davis, T Cleary, NIST, USA (Savannah Wessies to present)

Assessing the Toxic Contribution of Fire Smoke from the Contents of Residential Spaces
Micheal Spearpoint, *Y Kanellopoulos, OFR Consultants, UK*

CHEMISTRY/FLAME RETARDANTS

Investigation of the Thermal Decomposition of Additively used Organophosphorus Flame Retardants using the example of Polybutylen Terephthalate/DOPO-HQ Composite Material
Daniel Schmitz, *R Goertz, University of Wuppertal, Germany*

Antimony Trioxide (ATO) as Synergist to Brominated Flame Retardants: Can we live without it? Can we reduce the use of ATO without compromising?
Melis Arin, Imran Waseem, *E Eden, E Keizman and Lein Tange, ICL, Netherlands*

ELECTRIFICATION

SBiPV Phase 1: Fire Modelling of a Building with Building-Integrated Photovoltaics (BIPVs) Systems
Dahai Qi, *I Reda, M Sayed: Université de Sherbrooke, Y Ko: NRC/ Université de Sherbrooke, Canada*

Guidelines of the Sustainable Transport Forum1 on the Fire Safety of Electric Vehicle Recharging Points in Covered Car Parks
Eugenio Quintieri, *Fire Safe Europe, Belgium, AVERE, Fire Safe Europe, European Commission*

Analysis of Hazards of Home Storage Systems Powered by Lithium-Ion Batteries
L O Cortes Magalhaes, *Simon Holz , B Schaufelberger, M T Gedara, J Kuder, S Schopferer, Fraunhofer EMI, Germany*

Thermal Runaway in Lithium-Ion Batteries: How Emergency Cooling Regains Control
Katja Klicker, *R Goertz, University of Wuppertal, Germany*

Instrumental-Analytical Investigation of Venting Gases from Lithium-Ion Traction Batteries with Lithium Iron Phosphate Cathode
Monique Glockmann, *R Goertz, University of Wuppertal, Germany*

Venting Behaviour of a Li-Ion Pouch Cell: Experimental Analysis and Derivation of Source Term for CFD Simulation
Benjamin Schaufelberger, *L O C Magalhaes, T Kisters, J Kuder, S Schopferer, Fraunhofer EMI, Germany, P Herrmann, Farasis Energy Europe, Germany, T Hall, Kautex Textron, Germany*

Fire Safety of BIPV and BAPV on Roofs and Facades of Buildings
Peter van de Leur, *DGMR Consulting Engineers, Netherlands*

MATERIALS

Fire Performance of Impact-Resistant 3D-Printed Polymer Lattices for Naval Vessels
M. Rokib Hassan, *B Jones, K Sampson, H Li, L Gaburici, C Paquet, Baril-Gosselin, P Collins, National Research Council Canada, Canada*

Investigation of the Critical Temperature using a combination of Solid Fuels on the Backdraft Occurrence
Chia Lung (Farian) Wu, Central Police University, **W-Y Juan**, *National Cheng Kung University, C-Y Hung, Chang Jung Christian University, Taiwan*

Prediction of the Thermal Environment During Cabinet Fires Based on Experiments
V Drean, A Rabilloud, B Girardin, G LeGoff, **Eric Guillaume**, *Efectis, France, N Raxach, CEA Commissariat a l'Energie Atomique, France (Tala Fateh to present)*

Ignition and Burning Characterization of Electrical Cables Using Fire Propagation Apparatus (FPA)
Alain Alonso, *M Lárazo, D Alvear, Universidad de Cantabria, E Pérez, E Opazo, Prysmian Cables Spain, Spain*

A Mechanical Model for Surface Cracking of Wood Under Fire Heating due to Pyrolysis
Anyang Sun, *K Harada, D Nii, Kyoto University, Japan*

Thermal Insulation of Building Composed Roofs as a Factor of Fire Resistance
Pawel Roszkowski, *Jadwiga Fangrat, Building Research Institute, Poland*

B2

PYROLYSIS

Principles of Separating Heat Transfer Modes with Sensors
Jonathan Hodges, *Jensen Hughes, J Floyd, M DiDomizio, UL Research Institutes, USA*

A Box Model Approach for Predicting Burning of Porous Materials
Vojtěch Šálek, *Dr Matsugi, Y Nakamura, Toyohashi University of Technology, T Yamashita, T Setoguchi, Y Kenji, Mitsubishi Heavy Industries, Japan*

A Charring Model of Glue Laminated Timber Wall Considering Shrinkage, Cracking, and Falling Off Surface Layer
Shoma Makino, *Obayashi Corporation, K Harada, A Sun, D Nii, Kyoto University, Japan*

Comprehensive Comparison of Pyrolysis Codes with a Focus on Their Energy Conservation Modelling
Youssouf Abdelhafiz, *EDF R&D Lab Chatou/University of Toulouse, A Amokrane, EDF R&D Chatou, G Debenest, University of Toulouse, S Bourbigot, University of Lille/ Institute Universitaire de France, France*

Historical Review of the First Solid-Phase Burning Model
Alexander Castagna, *Y Geng, G Rein, Imperial College London, UK*

WILDLAND FIRES

The 2023 Lahaina Fire; A Post Event Investigation
Faraz Hedayati, *X Monroy, E Sluder, H Fallahian, M Shabanian, The Insurance Institute for Home & Safety, USA*

Influence of Local Vegetation on Ignition and Fire Spread of Vegetation Fires
Hongyi Wu, *R Christiani, A Hofmann, BAM, Germany, F Buhk, IMFSE, Belgium/Lund University, Sweden*

Design of an Apparatus for Ember Generation - Analysis of Ember-Induced Ignitability of Vegetation Samples
Andrea Klippel, *K Piechnik, M Weisbecker, F Köhler, C Nanduri, Otto-von-Guericke Universität Magdeburg, Germany*

Influence of Surface Geometry on Firebrand Pile Heat Transfer
S Wong, **Mahbobur Rahman**, *B Lattimer, Virginia Tech, J Hodges, Jensen Hughes USA*

Correlation Between Fuel Height and Convective Heat Transfer in the Propagating Excelsior Fire
Mohamadsadegh Sadeghi, *M Ghodrat, H Kleine, University of New South Wales, Australia, D Sutherland, UNSW Canberra, Australia, A Simeoni, WPI, USA*

Revisiting Fire Behavior on Surface Fuel Bed using a Dimensional Analysis
Bruno Guillaume, *M Dembele, A Streit, A Wasserman, Efectis France, L Terrei, A Collin, P Boulet, Universite de Lorraine, France*

Fire and Rescue Service Preparedness for Natural Hazards
Johan Björck, *Lund University, Sweden / WSP Sverige AB, M McNamee, Lund University, Sweden*

Wildfires Initiated by Power Lines: Mechanisms, Risks, and Preventative Strategies
Auriane Javaloyes, *P Adamopoulos, N Kalogeropoulos, G Rein, Imperial College London, UK*

EDUCATION

Transition Programme to Become a Fire Safety Engineer
F Binte Mohd Faudzi, **Rachel Bayliss**, *J Schulz, Z Protcenko, B Perrott, ARUP, UK*

B3

AI

Use of Recurrent Neural Network Surrogate Model for Façade Fire Investigation
Sai Pavan Kumar Balabomma, *B Matuszewski, E Asimakopoulou, University of Central Lancashire, UK*

Physics-Informed Surrogate Modelling for the Maximum Temperature of Protected Steel Elements in Fire
R Yarmohammadian, B Jovanovic, A Franchini, **Ruben Van Coile**, *Ghent University, Belgium*

CODES

Performance Based Fire Safety Regulation After Grenfell Towers
Vincent Brannigan, *University of Maryland, USA*

Re-Evaluation of Single Escape Routes in Residential Buildings in the Netherlands
Pim van Rede, *L De Witte, J van der Graaf, Netherlands Institute for Public Safety, Netherlands*

HUMAN BEHAVIOUR IN FIRE

Impact of Using Wheelchairs and Carrying Luggage on Egress Performance at Bottlenecks
Max Kinateder, *NRCC/Carleton University, Canada Carleton University, Canada, Paul Geoerg, Vereinigung zur Forderung des Deutschen Brandschutzes, Germany, A K Boomers, Forschungszentrum Jülich,Germany, M Berthiaume, NRCC/University of Ottowa, Canada, M Boltes, Forschungszentrum Jülich,Germany*

Analysis of Noise Levels in Crowded Environments: A Case Study of the Busan Fireworks Festival
Jun-Seok Lee, R-S Oh, J-H Choi, Pukyong National University, South Korea

Evaluation of Influencing Factors of Voice Alarm Sound Sources using EEG Analysis
Ji- Won Gu, Jun-Ho Choi, R-S Oh, Pukyong National University, South Korea

Evacuation Safety and Local Crowd Density in Arenas
Ahmed Hamdy Elsharkawi, Ashton Fire, UK, E Ronchi, Lund University, Sweden

Influence of Continuous Arrangement of the Digital Signage Displaying Dynamic Arrow on Evacuation Route Choice
Kosuke FUJII, National Research Institute of Fire and Disaster, Japan, Y Kanazawa, T SANO, Waseda University, Japan

Detailed Examination of Walking Speed and Crowd Density Before and After Passing Through the Bottleneck Along the Straight Passage
Akihide JO, Takenaka Corporation, T Sano, Waseda University, Y Ohmiya, Tokyo University of Science, Japan (217)

Pierside Evacuation of Ships and Barges
Courtney Myers, Jensen Hughes, M Hurley, SenezCo, USA

Hospital Department Evacuation – Time Estimation and Resource Management
Judit Rauscher, OFR Consultants, Manchester

Analysis of Passenger Ship Evacuation in Fire Emergency Scenario
Tezar Pratama, Sunaryo, Universitas Indonesia, Indonesia (312)