

SYMPOSIUM SCHEDULE

SUNDAY, 21 September 2008			
11:00	Registration (Novotel)		
13:00 - 17:00	<p>WORKSHOP 1 (Room 1, 1st Floor, Novotel)</p> <p>FLAME SPREAD MODELING</p> <p>V. Novozhilov, University of Ulster, UK; S. Dembele, Kingston University, UK; Marc Janssens, SwRI, USA; Chris Lautenberger, University of California Berkeley, USA; Kevin McGrattan, NIST, USA</p> <p>Organized by Nick Dembsey and Simo Hostikka</p>	<p>WORKSHOP 2 (Room 2, 1st Floor, Novotel)</p> <p>STRUCTURAL FIRE ENGINEERING</p> <p>Andy Buchanan, University of Canterbury, NZ; Guillermo Rein and Jamie Stern-Gotfried, University of Edinburgh, UK; Jonathan Barnett and Kevin LaMalva, GH, USA; František Wald, Czech Technical University, CZ; Allan Jowsey, Arup, UK</p> <p>Organized by Susan Lamont</p>	<p>WORKSHOP 3 (Room 3, 1st Floor, Novotel)</p> <p>EGRESS MODELING</p> <p>David Purser, Hartford Environmental Research, UK; Rita Fahy, NFPA, US; Barbara Lane, Arup, UK; Hubert Kluepfel, TraffGo-HT, Germany; Erica Kuligowski, NIST, US; Daniel Nilsson, Lund University, Sweden</p> <p>Organized by Steve Gwynne</p>
13:00 - 17:00	IAFSS Committee Meeting (committee only; Room 4, 1st Floor, Novotel)		
18:30 - 21:00	Welcome Reception (Novotel)		

MONDAY, 22 September 2008			
7:30	Registration (Audimax)		
8:30 - 9:00	Opening Ceremony (Audimax)		
9:00 - 9:45	<p>Howard W. Emmons Invited Plenary Lecture: Research on Electrical Fires: The State of the Art Vytenis Babrauskas, Fire Science and Technology Inc., USA Session Chair: Dougal Drysdale, U Edinburgh, UK</p>		
9:45 - 10:20	<p>Invited Lecture #2: Fire Safety Science in Germany: A Status Report about Research Activities and Requirements Reinhard Grabski, Institute of Fire Department Saxony-Anhalt, Germany Session Chair: Dieter Brein, U Karlsruhe, Germany</p>		
10:20 - 10:50	Coffee Break		
Mon-day 10:50 -	<p><i>Lecture Room A</i></p> <p>MODEL VALIDATION</p> <p>Session Chairs: Sheldon Tiezen and Brian Lattimer</p>	<p><i>Lecture Room B</i></p> <p>IGNITION</p> <p>Session Chairs: Matthew Bundy and Jukka Hietaniemi</p>	<p><i>Seminar A/B</i></p> <p>EVACUATION & HUMAN BEHAVIOR I</p> <p>Session Chairs: Edwin Galea and Dorothy Bruck</p>

12:30	MV – 1 (10:50 - 11:10) Fire Model Validation for Gas Temperatures and Radiative / Convective Partitioned Heat Flux Alexander L. Brown, Kevin J. Dowding, Vernon F. Nicolette, and Thomas K. Blanchat , Sandia National Laboratories, USA	I – 1 (10:50 - 11:10) Investigating the Vulnerabilities of Structures to Ignition From a Firebrand Attack Samuel L. Manzello and John R. Shields , NIST, USA; Yoshihiko Hayashi and Daisaku Nii , BRI, Japan	E – 1 (10:50 - 11:10) Adaptive Management in Fire Regulation and Emergency Response Brian Meacham , WPI, USA; Joseph Sarkis , Clark U, USA; Nicholas Dembsey , WPI, USA
	MV – 2 (11:15 - 11:35) Large-Scale Open Pool Experimental Data and Analysis for Fire Model Validation and Development Thomas Blanchat and Victor Figueroa , Sandia National Laboratories, USA	I – 2 (11:15 - 11:35) Study of Radiant Smoldering Ignition of Plywood Subjected to Prolonged Heating Using the Cone Calorimeter, TGA, and DSC Joshua Swann and Judithann Hartman , US Naval Academy, USA; Craig Beyler , Hughes Associates, USA	E – 2 (11:15 - 11:35) Application of RFID and Video Imaging on Evacuation Observations in Offices and Public Buildings Tuomo Rinne, Simo Hostikka, Tuomas Paloposki, Timo Korhone, and Juha-Matti Saari , VTT, Finland; Simo Heliövaara , Helsinki U Tech, Finland
	MV – 3 (11:40 - 12:00) Validation of A CFD Fire Model Using Two Step Combustion Chemistry Using the NIST Reduced-Scale Ventilation-Limited Compartment Data Jason Floyd , Hughes Associates, USA; Kevin McGrattan , NIST, USA	I – 3 (11:40 - 12:00) Effect of Moisture on Ignition Time of Cellulosic Materials Mohammed M. Khan, John L. de Ris, and Steve D. Ogden , FM Global, USA	E – 3 (11:40 - 12:00) Influencing Exit Choice in the Event of a Fire Evacuation Daniel Nilsson, Håkan Frantzich, and Wendy Saunders , Lund U, Sweden
	MV – 4 (12:05 - 12:25) Smoke Transport and FDS Validation Daniel Gottuk, Christopher Mealy, and Jason Floyd , Hughes Associates, USA	I – 4 (12:05 - 12:25) Effect of Humidity on Self-Heating of a Sub-bituminous Coal under Adiabatic Conditions Yulianto S. Nugroho, Rudy R. Rustam, Iman and Muksin Saleh , U Indonesia, Indonesia	E – 4 (12:05 - 12:25) Dependence of Modelled Evacuation Times on Key Parameters and Interactions David Purser , Hartford Environmental Research, UK
12:30 - 14:00	Lunch – Cafeteria (across from Audimax)		
Monday 14:00 - 14:50	<i>Lecture Room A</i> FLAME SPREAD I Session Chairs: WK Chow and Hong-Zeng Yu	<i>Lecture Room B</i> FIRE HEAT FLUX Session Chairs: Yaping He and Archibald Tewarson	<i>Seminar A/B</i> HUMAN FACTORS Session Chairs: David Purser and Susan Lamont
	FS – 1 (14:00 - 14:20) IAFSS THESIS AWARD WINNER: Flame Spread Analysis Using a Variable B-Number Ali S. Rangwala , WPI, USA	FF– 1 (14:00 - 14:20) Heat Flux Distribution and Flame Shapes on the Inert Façade Yee-Ping Lee , Nanya Institute Tech, Taiwan; M.A. Delichatsios and G.W.H. Silcock , U Ulster, UK	HF – 1 (14:00 - 14:20) Towards a Better Smoke Alarm Signal – An Evidence Based Approach Dorothy Bruck and Ian Thomas , Victoria U, Australia
	FS – 2 (14:25 - 14:45) Experimental Investigation of the Velocity Field in a Controlled Wind-aided Propagating Fire Using Particle Image Velocimetry Jesse Lozano, Watcharapong Tachajapong, and Hansheng Pan , UC Riverside, USA, Aaron Swanson and Chris Kelley , Northrop Grumman Space Tech, USA; Marko Princevac and Shankar Mahalingam , UC Riverside, USA	FF – 2 (14:25 - 14:45) Experimental and Numerical Investigations of Heat Impact and Flame Heights from Fires in SBI Tests Jianping Zhang, Michael Delichatsios, Matthieu Colobert, Johan Hereid, Martin Hagen, and Dimitrios Bakirtzis , U Ulster, N Ireland	HF – 2 (14:25 - 14:45) Strobe Lights, Pillow Shakers and Bed Shakers as Smoke Alarm Signals Ian Thomas and Dorothy Bruck , Victoria U, Australia
14:50 - 15:20	Coffee Break		

	<i>Lecture Room A</i>	<i>Lecture Room B</i>	<i>Seminar A/B</i>
Monday 15:20 - 16:10	FLAME SPREAD II Session Chairs: WK Chow and Hong-Zeng Yu	SOOT Session Chairs: Yaping He and Archibald Tewarson	TOXICITY I Session Chairs: David Purser and Nathan Marsh
	FS – 3 (15:20 - 15:40) Risk and Behavior of Fire Spread in a Densely-built Urban Area Keisuke Himoto , Kyoto U, Japan; Yasuo Akimoto and Akihiko Hokugo , Kobe U, Japan; Takeyoshi Tanaka , Kyoto U, Japan	ST – 1 (15:20 - 15:40) Soot Formation and Oxidation in Fires from Laminar Smoke Point Measurements Tarek Beji, Jianping Zhang, and Michael Delichatsios , U Ulster, Northern Ireland	TX – 1 (15:20 - 15:40) A Comparison of Toxic Product Yields Obtained From Five Laboratories Using the Steady State Tube Furnace (ISO TS 19700) Anna A. Stec and T. Richard Hull , U Central Lancashire, UK; Jenny A Purser , Hartford Environmental Research, UK; Per Blomqvist , SP, Sweden; Krzysztof Lebek , U Bolton, UK
	FS – 4 (15:45 - 16:05) Development of a Model of the ASTM E 84 Steiner Tunnel Test Marc Janssens, Jason Huczek, and Anthony Saucedo , SWRI, USA	ST – 2 (15:45 - 16:05) Measurement of the Mass Specific Extinction Coefficient of Acetylene, Toluene and Polymethyl Methacrylate Soot Particles in Visible and Near-Infrared Wavelengths Francois-Xavier Ouf , Laboratoire de Physique, France; Alexis Coppalle and Jérôme Yon , U Rouen, France; Jacques Vendel , Laboratoire de Physique, France	TX – 2 (15:45 - 16:05) Hydrogen Chloride in Fires T. Richard Hull, Anna A. Stec, and Keith T. Paul , U Central Lancashire, UK
16:30 - 22:30	Bus Transfer to Fire School; Fire School Visit and Dinner; Bus Transfer to Hotels		

TUESDAY, 23 September 2008			
8:00	Registration (Audimax)		
9:00 - 9:35	Invited Lecture # 3: State of the Art of Tunnel Fire Research Haukur Ingason , SP Technical Research Institute of Sweden, Sweden Session Chair: Craig Beyler, Hughes Associates, USA		
9:35 - 10:10	Invited Lecture #4: Risk-Based Selection of Design Fires to Ensure an Acceptable Level of Evacuation Safety Takeyoshi Tanaka , Kyoto University, Japan Session Chair: Robert Bill, FM Global, USA		
Tuesday 10:15 - 11:05	<i>Lecture Room A</i>	<i>Lecture Room B</i>	<i>Seminar A/B</i>
	TUNNEL FIRES Session Chairs: Jason Floyd and Guillermo Rein	WATER SPRINKLERS I Session Chairs: Bogdan Dlugogorski and Ulf Wickstrom	TOXICITY II Session Chairs: Richard Hull and Eric Kennedy
	T – 1 (10:15 - 10:35) The Effect of Air Velocity on Heat Release Rate and Fire Development during Fires in Tunnels Anders Lönnermark and Haukur Ingason SP, Sweden	WS – 1 (10:15 - 10:35) Design of Dry Pipe Sprinkler Systems to Meet the Water Delivery Time Restriction in Industrial Freezers Soonil Nam , FM Global, USA	TX – 3 (10:15 - 10:35) On the Inclusion of Toxic Potency in Product Fire Performance Richard G. Gann , NIST, USA
T – 2 (10:40 - 12:00) Tunnel Fire Simulation Model with Multi-Layer Zone Concept Keichi Suzuki , Shimizu Construction Corp, Japan; Takeyoshi Tanaka and Kazunori Harada , Kyoto U, Japan	WS – 2 (10:40 - 11:00) Quantifying the Initial Spray from Fire Sprinklers Ning Ren, Andrew F. Blum, Ying-Hui Zheng, Chi Do, and André W. Marshall , U Maryland, USA	TX – 4 (10:40 - 11:00) Sensitivity of a Smoke Toxicity Test Method to Test Conditions Nathan D. Marsh, Richard G. Gann, Jason D. Averill, and Marc R. Nyden , NIST, USA	

11:05 - 11:35	Coffee Break		
Tuesday 11:35 - 12:25	<i>Lecture Room A</i> FLAME SPREAD III Session Chairs: Jason Floyd and Guillermo Rein FS – 5 (11:35 - 11:55) Prediction of Melt Flow and Spread of Thermoplastic Objects with the Particle Finite Element Method Eugenio Oñate, Riccardo Rossi, and Sergio R. Idelsohn, Tech U Catalonia, Spain	<i>Lecture Room B</i> WATER SPRINKLERS II Session Chairs: Bogdan Dlugogorski and Ulf Wickstrom WS – 3 (11:35 - 11:55) Estimating the Reliability of Sprinkler Systems in Australian High-rise Office Buildings Khalid Moinuddin, Ian Thomas, and Samina Chea, Victoria U, Australia	<i>Seminar A/B</i> EVACUATION & EMERGENCY RESPONSE Session Chairs: Richard Hull and Eric Kennedy E – 5 (11:35 - 11:55) An Architecture for an Integrated Fire Emergency Response System for the Built Environment Rochan Upadhyay, Gavin Pringle, George Beckett, Stephen Potter, Liangxiu Han, Stephen Welch, Asif Usmani, and Jose Torero, U Edinburgh, UK
	FS – 6 (12:00 - 12:20) Smoldering Combustion of Solid Bulk Materials at Different Volume Fractions of Oxygen in the Surrounding Gas Marcus Malow and Ulrich Krause, BAM, Germany	WS – 4 (12:00 - 12:20) Assessment of Commodity Classification for Sprinkler Protection Using Representative Fuels Yibing Xin and Francesco Tamanini, FM Global, USA	E – 6 (12:00 - 12:20) Lifts for Emergency Evacuation in Apartment Buildings Than Singh Sharma, Queensland U Tech, Australia; Yaping He, U Western Sydney, Australia; Mahen Mahendran, Queensland U Tech, Australia
	12:25 - 13:55 Lunch – Cafeteria (across from Audimax)		
Tuesday 13:55 - 15:30	<i>Lecture Room A</i> SPILL PLUMES Session Chairs: Yuji Nakamura and Anders Lönnermark SP – 1 (13:55 - 14:15) Characterization of Balcony Spill Plume Entrainment using Physical Scale Modeling Roger Harrison and Michael Spearpoint, U Canterbury, New Zealand	<i>Lecture Room B</i> WATER MIST Session Chairs: Nicholas A Dembsey and Haukur Ingason WM – 1 (13:55 - 14:15) Water Mist Spray Characterization and Its Proper Application for Numerical Simulations Benjamin Ditch and Hong-Zeng Yu, FM Global, USA	<i>Seminar A/B</i> EVACUATION & HUMAN BEHAVIOR II Session Chairs: Karen Boyce and Rita Fahy E – 7 (13:55 - 14:15) Calculation Model for Travel Speed and Psychological State in Escape Routes considering Luminous Condition, Smoke Density and Evacuee's Visual Acuity Yuki Akizuki, U Toyama, Japan; Takeyoshi Tanaka and Kohei Yamao, Kyoto U, Japan
	SP – 2 (14:20 - 14:40) Novel Analytical Approach for Characterising Air Entrainment into a Balcony Spill Plume S. Kumar, P.H. Thomas, and G. Cox, BRE, UK	WM – 2 (14:20 - 14:40) Experimental Validation of Froude-Modeling-Based Physical Scaling of Water Mist Cooling of Enclosure Fires Hong-Zeng Yu, Xiangyang Zhou, and Benjamin Ditch, FM Global, USA	E – 8 (14:20 - 14:40) Developing Inclusive Emergency Procedure Steven Gwynne, Hughes Associates, USA
	SP – 3 (14:45 – 15:05) Adiabatic Surface Temperature and the Plate Thermometer for Calculating Heat Transfer and Controlling Fire Resistance Furnaces Ulf Wickström, SP, Sweden	WM – 3 (14:45 - 15:05) Preliminary Experimental Study and Numerical Simulations on Suppressing Spray Bitumen Fire with Water Mist in a Confined Space L.W. Pan and Q.W. Li, USTC, China; S.M. Lo, U Hong Kong, Hong Kong; G. X. Liao and J. Qin, USTC, China	E – 9 (14:45 - 15:05) Simulating the Interaction of Occupants with Signage Systems Lazaros Filippidis, Peter J. Lawrence, Edwin R. Galea, and Darren Blackshields, U Greenwich, UK

	SP –4 (15:10 – 15:30) A Comparative Analysis of the Use of Different Zone Models to Predict the Mass Smoke Flow for Axisymmetric and Spill Plumes Iain Sanderson and Tony Kilpatrick , Glasgow Caledonian U, UK; Jose Torero , U Edinburgh, UK	---- OPEN ----	---- OPEN ----
15:30 - 17:30	Poster Session I & Coffee Break		
18:30 - 22:30	STATE THEATER EVENING (OPTIONAL)		

WEDNESDAY, 24 September 2008

8:00	Registration (Audimax)		
9:00 - 9:35	Invited Lecture # 5: Development of Design Fires for Performance-Based Fire Safety Designs George Hadjisophocleous and Ehab Zalok , Carleton University, Canada Session Chair: W.K. Chow, U Poly, Hong Kong		
Wed. 9:40 - 10:55	<i>Lecture Room A</i> FLAMES & FIRE DYNAMICS I Session Chairs: Arnaud Trouve and Patricia Beaulieu	<i>Lecture Room B</i> EVACUATION & HUMAN BEHAVIOR: CASE STUDIES Session Chairs: Steven Gwynne and Ai Sekizawa	<i>Seminar A/B</i> SUPPRESSION I Session Chairs: Richard Gann and Michael Delichatsios
	FD – 1 (9:40 - 10:00) Fire Properties of Refuse Derived Fuels: Measurements of Temperature Profiles and Mass Loss Samorn Hirunpraditkoon, Bogdan Dlugogorski, and Eric M. Kennedy , U Newcastle, Australia	E – 10 (9:40 - 10:00) A Study on the Estimation of the Evacuation Behaviors of Tokyo City Residents in the Kanto Earthquake Fire Tomoaki Nishino, Shinichi Tsuburaya, Keisuke Himoto, and Takeyoshi Tanaka , Kyoto U, Japan	S – 1 (9:40 - 10:00) Enhanced Effectiveness of Liquid Thermal Fire Extinguishing Agents Jiann C. Yang, William M. Pitts, and Marcia L. Huber , NIST, USA
	FD – 2 (10:05 - 10:25) Relation Between Horizontal Ventilation Velocity and Backlayering Distance in Large Closed Car Parks Nele Tilley and Bart Merci , Ghent U, Belgium	E – 11 (10:05 - 10:25) Coupled Fire/Evacuation Analysis of the Station Nightclub Fire Edwin Galea, Zhaozhi Wang, Anand Veeraswamy, Fuchen Jia, Peter J. Lawrence, and John Ewer , U Greenwich, UK	S – 2 (10:05 - 10:25) A New Type of BTP/Zeolites Nanocomposites as Mixed-Phase Fire Suppressant: Preparation, Characterization and Extinguishing Mechanism Discussion Xiaomin Ni, Kauqian Kuang, and Guangxuan Liao , USTC, China
	FD – 3 (10:30 - 10:50) Sustained Burning of Water-based Paint Sprays Prateep Chatterjee, John L. de Ris, Mohammed M. Khan, and Stephen P. D'Aniello , FM Global, USA	E – 12 (10:30 - 10:50) Review of A Real Multi-story Store Fire by Applying Evacuation and Smoke Movement Interactive Simulation Model Ai Sekizawa , U Tokyo, Japan; Shuji Kakegawa , Shimizu Corp, Japan; Manabu Ebihara , Tokyo U Science, Japan	---- OPEN ----
10:55 - 11:25	Coffee Break		

Wed. 11:25 - 12:15	<i>Lecture Room A</i> FLAMES & FIRE DYNAMICS II Session Chairs: Arnaud Trouve and Patricia Beaulieu	<i>Lecture Room B</i> STATISTICS & RISK ANALYSIS I Session Chairs: John Hall and Steven Gwynne	<i>Seminar A/B</i> SUPPRESSION II Session Chairs: Richard Gann and Michael Delichatsios
	FD – 4 (11:25 - 11:45) Effect of a Facing Wall on Façade Flames Akito Yanagisawa, Daisuke Goto, and Yoshifumi Ohmiya , Tokyo U Science, Japan; Michael Delichatsios , U Ulster, UK; Yee-Ping Lee , Nanya Institute Tech, Taiwan; Kaoru Wakatsuki , National Research Institute of Fire & Disaster, Japan	SR – 1 (11:25 - 11:45) A Probabilistic Risk Analysis Methodology for High-rise Buildings taking into Account Fire Department Intervention Time Bödvar Tomasson and Jens Bengtsson , Linuhönnun Consulting Engineers, Iceland; Dadi Thorsteinsson , Capital District Fire Rescue Service, Iceland; Björn Karlsson , Iceland Fire Authority, Iceland	S – 3 (11:25 - 11:45) An Investigation of Extinguishment by Thermal Agents Using Detailed Chemical Modeling of Opposed Jet Diffusion Flames William M. Pitts, Jiann C. Yang, and Rodney A. Bryant , NIST, USA; Linda G. Blevins , DOE, USA
	FD – 5 (11:50 - 12:10) Prediction of Heat Release Rate Based on Ceiling Jet Temperature in Case of Time-dependent Fire Kotaro Nitta and Yasushi Oka , Yokohama National U, Japan; Jun'ichi Yamaguchi, Ko Muraoka, and Ryohei Mase , Tech Research Institute, Japan	SR – 2 (11:50 - 12:10) Cost Benefit Analysis of a Fire Safety System Based On The Life Quality Index Michael Hasofer and Ian Thomas , Victoria U, Australia	S – 4 (11:50 - 12:10) An Experimental Study of the Lower Flammability Limit of LPG/Halocarbon Mixtures Using the Tubular Burner Apparatus Murray Height, Bogdan Dlugogorski, and Eric Kennedy , U Newcastle, Australia
12:15 - 13:45	Lunch – Cafeteria (across from Audimax)		
Wed. 13:45 - 15:00	<i>Lecture Room A</i> COMPARTMENT FIRES I Session Chairs: Christopher Lautenberger and Richard Carvel	<i>Lecture Room B</i> STATISTICS & RISK ANALYSIS II Session Chairs: John Hall and Frederick Mowrer	<i>Seminar A/B</i> SUPPRESSION III Session Chairs: Johannes Dimyadi and John de Ris
	C – 1 (13:45 - 14:05) An Application of Mass Loss Rate Model with Fuel Response Effects in Fully-Developed Compartment Fires Yunyong P. Utiskul , Arup Fire, USA; James G. Quintiere , U Maryland, USA	SR – 3 (13:45 - 14:05) Comparative Analysis of Taiwan Fire Risk with Asia/Oceania Countries and Other Countries around the World Wei-wen Tseng, Shen-wen Chien, and Tzu-sheng Shen , Central Police U, Taiwan	S – 5 (13:45 - 14:05) Dynamic Interactions between a Buoyant Reacting Plume and Evaporating Droplets Jun Xia, Kai Luo , U Southampton, UK; Suresh Kumar , BRE, UK
	C – 2 (14:10 - 14:30) A Compartment Burning Rate Model for Various Scales Tensei Mizukami , Kyoto U, Japan; Yunyong Utiskul , Arup Fire, USA; Tomihiko Naruse , National Institute Land Infrastructure Management, Japan; James G. Quintiere , U Maryland, USA	SR – 4 (14:10 - 14:30) Fire Load Survey and Statistical Analysis Christophe Thauvoye and Bin Zhao , CTICM, France; Jochen Klein and Mario Fontana , IBK/ETH, Switzerland	S – 6 (14:10 - 14:30) Numerical Investigation on the Effectiveness of Water Spray Deluge in Providing Cooling, Smoke Dilution and Radiation Attenuation in Fires Jennifer Wen and Siaka Dembele , Kingston U, UK; Manjiang Yang , USTC, China; Vincent Tam , BP Exploration, UK; Jian Wang , USTC, China
	C – 3 (14:35 - 14:55) Carbon Monoxide and Smoke Production Downstream of a Compartment for Underventilated Fires Sebastian Ukleja, Michael A. Delichatsios and Mary M. Delichatsios , U Ulster, UK; Yee-Ping Lee , Nanya Institute Tech, Taiwan	SR – 5 (14:35 - 14:55) Factors Determining Probability of Exceedance of Area Damaged by Flame Yutaka Kobayashi , Taisei Corp, Japan	----- OPEN -----
15:00 - 15:30	Coffee Break		

	<i>Lecture Room A</i> COMPARTMENT FIRES II Session Chairs: Christopher Lautenberger and Richard Carvel	<i>Lecture Room B</i> DEFLAGRATION Session Chairs: André Marshall and Frederick Mowrer	<i>Seminar A/B</i> DETECTION Session Chairs: Johannes Dimyadi and John de Ris
Wed. 16:00 - 16:50	C – 4 (16:00 - 16:20) Studies of Cooling Effects of Sprinkler Spray on Smoke Layer S.C. Li, D. Yang, R. Huo, L.H. Hu, Y.Z. Li, K.Y. Li, and H.B. Wang, USTC, China	DF – 1 (16:00 - 16:20) Experimental and Numerical Study of Methane-air Deflagrations in a Vented Enclosure C. Regis Bauwens, Jeff Chaffee, and Sergey Dorofeev, FM Global, USA	D – 1 (16:00 - 16:20) Experimental Studies on Effects of Non-sphersity of Smoke Particles on the Light Scattering Characteristics Qiyuan Xie, Heping Zhang, Yongming Zhang, and Lifeng Qiao, USTC, China
	C – 5 (16:25 - 16:45) Measurements in Standard Room Scale Fires Andrew Lock, Gwon Hyun Ko, Matthew Bundy, Erik Johnsson, and Anthony Hamins, NIST, USA	DF – 2 (16:25 - 16:45) Numerical Simulation of Explosive Combustion Following Ignition of a Fuel Vapor Cloud Zhixin Hu and Arnaud Trouve, U Maryland, USA	D – 2 (16:25 - 16:45) Case Study - Special Design of Smoke Detection System in a Mental Health Facility in New Zealand Judith Schulz, Jim Clarke, and Martin Feeney, Holmes Fire & Safety, New Zealand
	Open Evening		

	THURSDAY, 24 September 2008		
8:00	Registration (Audimax)		
9:00 - 9:35	Invited Lecture #6: The Challenges of Predicting Structural Performance in Fires Andy Buchanan University of Canterbury, New Zealand Session Chair: B. Karlsson, Iceland Fire Authority, Iceland		
Thurs- day 9:40 – 10:55	<i>Lecture Room A</i> COMPARTMENT FIRES III Session Chairs: Marc Janssens and Ian Thomas	<i>Lecture Room B</i> FIRE PHYSICS Session Chairs: Ali Rangwala and Asif Usmani	<i>Seminar A/B</i> PERFORMANCE BASED DESIGN Session Chairs: Samuel Manzello and Simo Hostikka
	C – 6 (9:40 - 10:00) Flame Entrainment and Its Application to Compartment Fires Brian Lattimer, Hughes Associates, USA	FP – 1 (9:40 - 10:00) Investigation of the Fertilizer Fire aboard the Ostedijk Rory Hadden, Freddy X. Jarvis, and Guillermo Rein, U Edinburgh, UK	----- OPEN -----
	C – 7 (10:05 - 10:25) Solution Multiplicity of Smoke Flows in a Simple Building Jian Gong and Yuguo Li, U Hong Kong, China	FP – 2 (10:05 - 10:25) Simulating Gravity Current Based on the Application of the Thermal Lattice Boltzmann Method Ye Junqi and Yang Lizhong, USTC, China	PBD – 2 (10:05 - 10:25) Design Fires for Deliberately Lit Fire Scenarios in which Bottled Petrol is used as the Accelerant Paul L.E. Richards, Beca Fire Int., New Zealand; Charles M. Fleischmann and Michael J. Spearpoint, U Canterbury, New Zealand
	C – 8 (10:30 - 10:50) Experimental Study on Cross-ventilation in Compartment Fire in the Wind Environment Haixiang Chen, Naian Liu, Linhe Zhang, and Zhihua Deng, USTC, China; Hong Huang, U Tokyo, Japan	FP – 3 (10:30 - 10:50) Measurement of the Nonuniformity of First Responder Thermal Imaging Cameras Andrew Lock and Francine Amon, NIST, USA	PBD – 3 (10:30 - 10:50) Simulation of Glazing Behavior in Fires using Computational Fluids Dynamics and Spectral Radiation Modeling Siaka Dembele, Ricardo Rosario, and Jennifer Wen, Kingston U, UK; Paul Warren and Stuart Dale, Pilkington European Tech Centre, UK

10:55 - 11:25	Coffee Break		
Thurs- day 11:25 - 12:40	<i>Lecture Room A</i> COMPARTMENT FIRES IV Session Chairs: Marc Janssens and Ian Thomas	<i>Lecture Room B</i> STRUCTURAL FIRE PERFORMANCE I Session Chairs: Mario Fontana and Asif Usmani	<i>Seminar A/B</i> FIRE CHEMISTRY I Session Chairs: Samuel Manzello and Simo Hostikka
	C – 9 (11:25 - 11:45) A Fire Zone Model Including the Cooling effect of Sprinkler Spray on Smoke Layer Dong Yang, Ran Huo, Longhua Hu, Sicheng Li and Yuanzhou Li , USTC, China	SF – 1 (11:25 - 11:45) IAFSS THESIS AWARD WINNER Local Buckling Behavior of Steel Sections Subjected to Fire Markus Knobloch , ETH Zurich, Switzerland	FC – 1 (11:25 - 11:45) HCN Yields and Fate of Fuel Nitrogen for Materials under Different Combustion Conditions in the ISO 19700 Tube Furnace and Large -scale Fires David Purser and Jenny Purser , Hartford Environmental Research, UK
	C – 10 (11:50- 12:10) Effects of Vitation on the Heat Release Rate in Mechanically-Ventilated Compartment Fires Stephane Melis and Laurent Audouin , IRSN, France	SF – 2 (11:50 - 12:10) Experimental and Numerical Study on Performance of Concrete Slabs Subjected to Severe Fire Faris Ali, Ali Nadjai , U Ulster, UK and Abid Abu-Tair , Al-Quds U, Israel.	FC – 2 (11:50 - 12:10) Testing of Different Skeletal and Global Mechanisms for Modeling Combustion of Degradation Gases Involved in Wildland Fire Virginie Tihay, Albert Simeoni and Paul-Antoine Santoni , U Corsica, France
	C – 11 (12:15 - 12:35) Experimental Study of the Fire Mass Loss Rate in Confined and Mechanically Ventilated Multi-Room Scenarios William Le Saux, Hugues Pretrel, Caroline Lucchesi, and Pascal Guillou , IRSN, France	SF – 3 (12:15 - 12:35) Large Scale Experiments on the Response of a Two-story Composite Steel Frame under Fire Loading Yuli Dong , Harbin Institute Tech, China; Kuldeep Prasad , NIST, USA	FC – 3 (12:15 - 12:35) Thermo-Kinetic Model of Burning for Pyrolyzing Materials Stanislav I. Stolarov , SRA International, USA; Richard E. Lyon , FAA Hughes Tech Center, USA; James Quintiere , U Maryland
12:40 - 14:00	Lunch Break – cafeteria (across from Audimax)		
14:00 - 15:15	IAFSS Membership Business Meeting (<i>Lecture Room B</i>)		
15:15 - 17:00	Poster Session 2 and Coffee Break / IAFSS Committee meeting		
19:00 - 22:30	IAFSS Symposium Banquet		

FRIDAY, 26 September 2008			
8:00	Registration (Audimax)		
Friday 9:00 - 10:15	<i>Lecture Room A</i> MODELING I Session Chairs: Jennifer Wen and Suresh Kumar M – 1 (9:00 - 9:20) IAFSS THESIS AWARD WINNER Sharing Building Information using the IFC Data Model for FDS Fire Simulation Johannes Dimyadi , Facilities Management Unitec, New Zealand; Michael Spearpoint , U Canterbury, New Zealand; Robert Amor , U Auckland, New Zealand	<i>Lecture Room B</i> STRUCTURAL FIRE PERFORMANCE II Session Chairs: Yutaka Kobayashi and Markus Knobloch SF – 4 (9:00 - 9:20) Fire Induced Thermal and Structural Response of the World Trade Center Towers Kuldeep Prasad, Anthony Hamins, Therese McAllister, and John Gross , NIST, USA	<i>Seminar A/B</i> FIRE CHEMISTRY II Session Chairs: Sun Jinhua and Charles Fleischmann FC – 4 (9:00 - 9:20) Smoke Emissions in Fires Archibald Tewarson , FM Global, USA
	M – 2 (9:25 - 9:45) The Effect of Model Parameters on the Simulation of Fire Dynamics Wolfram Jahn, Guillermo Rein, and Jose L. Torero , U Edinburgh, UK	SF – 5 (9:25- 9:45) Fire Behaviour of Cross-Laminated Solid Timber Panels Andrea Frangi, Mario Fontana, and Markus Knobloch , ETH Zurich, Switzerland; Giovanna Bochicchio , CNR-IVALSA, Italy	FC – 5 (9:25- 9:45) Calculation Methods for the Heat Release Rate of Materials of Unknown Composition Hubert Biteau and Thomas Steinhaus , U Edinburgh, UK; Christopher Schemel , Packer Engineering, USA; Albert Simeoni , U Corsica, France; Guy Marlair , Institut National de l'Environnement Industriel et des Risques, France; Nicolas Bal and Jose L. Torero , U Edinburgh, UK
	M – 3 (9:50 - 10:10) Comparison of Two and Three Dimensional Simulations of Fires at Wildland Urban Interface Simo Hostikka, Johan Mangs, and Esko Mikkola , VTT, Finland	SF – 6 (9:50 - 10:10) Collapse of Tall Buildings in Multi-Storey Fires David Lange and Asif Usmani , U Edinburgh, UK	FC – 6 (9:50 - 10:10) Evaporation Modelling for Low-temperature, Long-term Exposure of Wood under Isothermal Heating Siew Mei Lim , Rolf Jensen & Associates, USA; Michael Yit Lin Chew , National U Singapore, Singapore
10:15 - 10:45	Coffee Break		
Friday 10:45 - 12:00	<i>Lecture Room A</i> MODELING II Session Chairs: Jennifer Wen and Suresh Kumar M – 4 (10:45 - 11:05) Effect of Computation Domain on Simulation of Small Compartment Fires Yaping He, Chris Jamieson, Alan Jeary and Jian Wang , U Western Sydney, Australia	<i>Lecture Room B</i> STRUCTURAL FIRE PERFORMANCE III Session Chairs: Yutaka Kobayashi and Markus Knobloch SF – 7 (10:45 - 11:05) Modelling Heat and Mass Transfer in Wood-Frame Floor Assemblies Exposed to Fire Steven T. Craft, Burkan Isgor, Carleton U, Canada, James R. Mehaffey , FPIInnovations, Canada, and George Hadjisophocleous , Carleton U, Canada	<i>Seminar A/B</i> FIRE CHEMISTRY III Session Chairs: Sun Jinhua and Charles Fleischmann FC – 7 (10:45 - 11:05) PCDD/F Formation from Heterogeneous Oxidation of Wood Pyrolysates Nigel W. Tame, Bogdan Z. Dlugogorski and Eric M. Kennedy , U Newcastle, Australia

	<p>M – 5 (11:10 - 11:30) Numerical Simulation of Fire Growth, Transition to Flashover, and Post-Flashover Dynamics in the Dalmarnock Fire Test Mariano Lazaro, U Cantabria, Spain; Havard Boehmer, U Maryland, USA; Daniel Alvear and Jorge A. Capote, U Cantabria, Spain; Arnaud Trouve, U Maryland, USA</p>	<p>SF – 8 (11:10 - 11:30) FIRESTRUC - Integrating Advanced Three-dimensional Modelling Methodologies for Predicting Thermo-mechanical Behaviour of Steel and Composite Structures Subjected to Natural Fires Stephen Welch, U Edinburgh, UK; Stewart Miles and Suresh Kumar, BRE, UK; Tony Lemaire, TNO Efectis, Netherlands; Alan Chan, U Edinburgh, UK</p>	<p>FC – 8 (11:10 - 11:30) The Role of Decomposition Kinetics in Pyrolysis Modeling - Application to a Fire Retardant Polyester Composite Chris Lautenberger, UC Berkeley, USA; Esther Kim and Nicholas Dembsey, WPI, USA; Carlos Fernandez-Pello, UC Berkeley, USA</p>
	<p>M – 6 (11:35 - 11:55) Sensor-linked Fire Simulation using a Monte-Carlo Approach Sung-Han Koo, U Edinburgh, UK; Jeremy Fraser-Mitchell, BRE Global, UK; Rochan Upadhyay and Stephen Welch, U Edinburgh, UK</p>	<p>----- OPEN -----</p>	<p>FC – 9 (11:35 - 11:55) Estimation of Pyrolysis Model Parameters for Solid Materials Using Thermogravimetric Data Anna Matala, Simo Hostikka, and Johan Mangs, VTT, Finland</p>
<p>Farewell Lunch – cafeteria (across from Audimax)</p>			