

Program of 10th International Seminar on Fire and Explosion Hazards 22 -27 May 2022, Oslo, Norway



	Sunday 22/05	Monday 23/05		Tuesday 24/05		Wednesday 25/05		Thursday 26/05		Friday 27/05	
07:45		coffee & tea									
08:00		Welcome		coffee & tea		coffee & tea		coffee & tea		coffee & tea	
08:30		Plenary: From Mathematical modeling of combustion physics to Analysis of fire and explosion hazards In The oil and gas industry <i>Bjørn F. Magnussen</i>		Plenary: Nuclear Fire Safety: IRSN Fire risk analysis method and R&D <i>Yannick Ormieres</i>		Plenary: Fire safety of PV panels on buildings <i>Grunde Jomaas</i>		Plenary: The use of numerical calculations in forensic investigation of the 22nd July bombing in Oslo <i>Svein Christensen</i>		Plenary: to be announced	
09:30		intermission		intermission		intermission		intermission		intermission	
09:35		Highlighted Presentations Fire Dynamics		Highlighted Presentations Hydrogen Safety		Highlighted Presentations Battery		Highlighted Presentations DDT/Suppression		Highlighted Presentations Dust Explosion/Material	
09:35		27 A Two-Step Combustion Scheme for Predicting CO in Under-Ventilated Compartment Fires <i>Kevin McGrattan, Randall McDermott and Jason Floyd</i>		38 Analysis of hydrogen incidents and accidents database HIAD 2.0 <i>Jennifer Wen</i>		79 A comparative study on the suppression capacity and the environmental impact of different extinguishing agents of lithium-ion battery fires <i>Sofia Ubaldi et al.</i>		17 Hybrid-Mixture Explosions: Large-Scale Testing and Estimation of Reactivity Parameters <i>Lorenz Boeck, Regis Bauwens and Sergey Dorofeev</i>		50. Analysis of the load bearing capacity of concrete semi-confined spaces exposed to the combustion of two cars at the Wildland-Urban Interface <i>Pascale Vacca, Elsa Pastor and Eulàlia Planas</i>	
10:00		37. Towards a comprehensive modeling of downward flame spread over combustible solid material <i>Alexander Snegirev</i>		63 Numerical model for prediction of hydrogen flame blow-off from a TPRD <i>Mina Kazemi, Sile Brennan and Vladimir Molkov</i>		22. Computational Fluid Dynamics Simulations of Water Spray Interaction with a Fire-Driven Flow in a Confined and a Mechanically Ventilated Enclosure <i>Tarek Beji and Hugues Prérel</i>		62 A case study into inhibition limits of Novoc in Stoichiometric Propane-Air mixture <i>Sharath Nagaraju et al.</i>		39 Measurement of the surface temperature of a wood sample with a thermo-phosphorescent powder <i>Alexis Coppalle, Gilles Godard and Avinash Chaudhary</i>	
10:25		Refreshments		Refreshments		Refreshments		Refreshments		Refreshments	
10:55		Combustion Fundamentals of Fires	Hydrogen Safety	Fire Dynamics/Fundamentals	Hydrogen safety	Fire Dynamics	Deflagration, DDT, Detonation and Explosion Hazards	Material Behavior Fires	Deflagration, DDT, Detonation and Explosion Hazards	Fire Dynamics	Material Behavior Fires
10:55		2. How Elevated Temperatures Influence the Passage of Smoke Across Unprotected Softwood Deflection Heads Using Small-Scale Experimental Modelling <i>Khalid Khan et al.</i>	69. Thermal effects from downwards hydrogen impinging jet – experimental results from high-pressure releases in a carpark <i>Agnieszka Lach et al.</i>	10. A Comparative Study on the Effect of Natural and Forced Convection Correlations on the CFD Simulation Results of Liquid Pool <i>Fires Mingcian Hong et al.</i>	85. Pressure limit of spontaneous ignition of hydrogen in a T-shaped channel system <i>Donatella Cirrone et al.</i>	53. An Experimental Investigation on the Impact of Burner Height and Location on the Characteristics of Under-ventilated Compartment Fires <i>Dionysios Kolaitis and Andrianos Koklas</i>	49. Simulation of One Dimensional Detonation in OpenFOAM using Detailed Chemistry and Adaptive Mesh Refinement <i>Ali Shahanaghi et al.</i>	72. New Approach to Cable Tray Fire Modelling Through a FLASH-CAT Modification <i>David Lázaro et al.</i>	13. Numerical investigations on dust explosion process in MIKE 3 apparatus <i>Yangyue Pan et al.</i>	24. Improvement of Flow Field Characterization in case of Fire Scenario in a Ventilated Compartment with PIV Technique <i>Hajar Zaidouli et al.</i>	57. Fire Performance of Residential Shipping Containers Designed with a Shaft Wall System <i>Alba Agueda et al.</i>
11:20		47. Water sprays cooling of a hot metallic plate <i>Zoubir Acem et al.</i>	51. QRA methodology of hydrogen tank rupture in a fire in a tunnel <i>Sergii Kashkarov et al.</i>	71. Exploratory comparative study of the impact of simplified finite-rate chemistry in LES-EDC simulations of the UMD line burner <i>Jeri At Thabari et al.</i>	5. Tactical depressurization of hydrogen containers with civilian rifle and ammunition <i>Jonathan Gehandler et al.</i>	54. Impact of Sloped Terrain, Fuel Moisture Content and Fuel Load on Fuel Litter Fires: An Experimental Study <i>Dionysios Kolaitis et al.</i>	73. Deflagration-to Detonation Transition of Hydrogen-Air Mixture in a Highly Congested, Open-ended Channel <i>Mathias Henriksen et al.</i>	76. Fire behavior of Aluminum Composite Panel material using small scale test method <i>Vilias Siraits et al.</i>	20. Micro-explosions: Simple Models of Complex Phenomena <i>Sergei Sazhin et al.</i>	25. Influence of the source elevation on a pool fire in a forced ventilated enclosure <i>Emeline Georges et al.</i>	61. Thermal Characterization of a Green-Poxy Resin-Based Bio-Composite Reinforced with Banana Leaf Fibres for Transportation Applications <i>Asih Melati et al.</i>
11:45		80. Combustion properties of the C3H6/air <i>Ayan Mousse-Rayaleh et al.</i>	67. Water Mist Characteristics for Explosion Mitigation <i>Joachim Lundberg et al.</i>	29. Fully-involved fire dynamics in ceiling-vented compartments <i>Craig Lawson et al.</i>	86. Experimental Investigation of Impinging and Confined Hydrogen Jet Fires <i>Christoph Meraner et al.</i>	60. Experimental Study on the Effect of Mechanical Ventilation on the Fire Behavior in a Reduce-scale Room of the Castle of Chambord <i>Shehu A. Abdurrahman et al.</i>	95. The explosion length as a measure of detonability: Review of data in methane and hydrogen <i>Matei Radulescu</i>	84. Effect of inert gas discharge time on wood crib fires in reduced-scale and full-scale experiments <i>Jonathan Zimak et al.</i>	35. Blast wave overpressures from CO2 depressurization in a conical-shaped vessel <i>Osama M.Ibrahim et al.</i>	26. The assessment of the laminar smoke point soot modeling concept for diluted laminar diffusion flames <i>Shahrooz Motaghian and Tarek Beji</i>	34. Fibre optic cables exposed to fire – Using data transfer as damage criteria <i>Joakim Åstöm et al.</i>
12:10		Lunch		Lunch		Lunch		Lunch		Lunch	

13:00						Fire Safety Engineering	Fire Suppression	Fire Dynamics	Dust Explosions	Fire Safety engineering	Solid combustion	
		Poster Session		Poster Session		58. Three-Dimensional Numerical Simulation of Smoldering in Granular Biomass Fuel Beds <i>Christoph Meraner et al.</i>	23. Numerical investigations on water mist fire extinguishing performance: physical and sensitivity analysis <i>Antonin Robinet et al.</i>	45. Characterization of the geometrical and radiative properties of small heptane pool fires <i>Bouaza Lafdal et al.</i>	7. Estimation of Smoldering Peat Fire CO and CO2 Emission Factors by Multidimensional Spread and Elemental Variables <i>Bintang Farhan Muhammad et al.</i>	3. Experimental study on the thermal behavior of the tank with oil leaking and burning <i>Jiyun Wang et al.</i>	4. Combustion characteristics of rich methane/air mixtures at elevated pressures <i>Igor Glukhov et al.</i>	
14:00		Dust Explosions	Hydrogen Safety	Fire Dynamics	Hydrogen Safety	27. A Two-Step Combustion Scheme for Predicting CO in Under-Ventilated Compartment Fires <i>Kevin McGrattan et al.</i>	65. Efficiency of Firefighting Foams: Testing Protocol for Vapor Suppression of Firefighting Foams in Pool Fires <i>Majed Almari et al.</i>	46. Experimental Study of the Fire Dynamics in a Non-combustible Parallel Wall setup <i>Julian Mendez et al.</i>	74. Laboratory Scale Experiment of Vegetation Uprooting Phenomena during Smoldering of Peat <i>Jeihan K Hapsari et al.</i>	77. Technical Regulation in Fire Safety of Static Electricity - Electrostatic Safety System <i>V Verevkin and Elena Mikhaylova</i>	8. Upward Flame Spreading and Surface Smoldering over Thin Material with Varied Sample Thickness and Oxygen Concentration Diluted with Carbon Dioxide <i>Wenlong Wang et al.</i>	
14:00		12. Study of Simplified Models and Influencing Parameters of the Minimum Ignition Energy of Dust Clouds <i>Tengfei Chen et al.</i>	91. Influence of Sprinklers on the Thermal Exposure of a Tank Exposed to a Hydrogen Jet Flame <i>Marcus Runefors and Robert McNamee</i>	30. Numerical investigation of the effect of ventilation conditions of Externally Venting Flames on curvilinear geometries. <i>Anoop Warrior et al.</i>	89. Safety in human operation during bunkering of liquid hydrogen- Preliminary findings of CRIOP scenario analysis <i>Linda S. Lunde-Hanssen and Øystein Ulleberg</i>	Lab visit		40. Blow-off of Atmospheric Fuel Jet Flames <i>Adriana Palacios et al.</i>	87. KAPAS: Deterministic and Probabilistic Cellular Automata to Simulate Field-scale Flaming and Smoldering Wildfires in Tropical Peatlands <i>Dwi Purnomo et al.</i>	Refreshments		
14:25		14. Flame Propagation of Combustible Dusts: a Mallard-Le Chatelier Inspired Model <i>Maria Portarapillo et al.</i>	94. Ignition likelihood of a sudden hydrogen release <i>Christophe Proust</i>	28. Observations on the delay time of backdraught in the absence of a pilot source <i>Chia Lung Wu and Ricky Carvel</i>	70. A transient model for hydrogen pipe leak <i>Prasanna Welahettige et al.</i>			Dinner Gala		Closing of the 10th ISFEH		
14:50		33. Vented dust explosions: comparing experiments, simulations and standards <i>Chen Huang et al.</i>	92. CFD modelling of the entire fuelling process at a hydrogen refuelling station <i>Hazhir Ebne-Abbasi et al.</i>	42. Analysis of Sensitivity of Vertical Corner Flame Spread Dynamics to Uncertainties in the Model Input <i>Dushyant M. Chaudhari and Stanislav I. Stolarov</i>	78. Experiments and Simulations of Large Scale Hydrogen-Nitrogen-Air Gas Explosions for Nuclear and Hydrogen Safety Applications <i>Melodia Lucas et al.</i>					End of Conference		
15:15	Refreshments		Refreshments									
15:45	Mitigation of battery fires	Material flammability and flame retardancy	Hydrogen safety	Solid combustion								
15:45	19. The suppression effect of heptafluoropropane released at different times on lithium-ion battery fires <i>Jiajia Xu et al.</i>	41. Products of pyrolysis and decomposition of combustible materials at incipient stages of fires <i>Svetlana Kropotova et al.</i>	83. Igniting the Hydrogen-air Mixtures due to Shock Wave Focusing Inside a Wedge-Shaped Cavity <i>Nickolay Smirnov et al.</i>	88. A Reduced Kinetic Scheme for Methyl methacrylate Gas-phase Combustion <i>Sergey Yakush et al.</i>								
16:10	9. Investigation of Cooling Control Effect of Fine Water Mist on Lithium Ion Battery Thermal Runaway <i>Tong Liu et al.</i>	11. Effects of Seawater on the Performance of Aqueous Film-Forming Foam Based on Anionic, Nonionic and Amphoteric Surfactants <i>Xiaoyang Yu et al.</i>	68. Experimental study of self-ignition induced by high-pressure hydrogen release through a tube with obstacles <i>Qian Zeng et al.</i>	18. Theoretical study of solid laminar combustion under forced flow <i>Fuhai Gou et al.</i>								
16:35	Closing of session		81. Hydrogen-air detonation inhibition by gaseous additive <i>Valeriy Nikitin et al.</i>									
17:00	Closing of session											
18:00-20:00	Welcome reception in Raddison Scandianvia											

We hope to see you in Oslo in May 2022

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