



Tentative Program

10th International Conference on Structures in Fire

Ulster University, FireSERT, June 6 - 8, 2018

Tuesday, June 5, 2018

18:00 - 20:00	Registration and Opening Reception (Belfast Centre Campus)	Sponsored by the Faculty of Engineering, Built Environment and Innovation Office, Ulster University
----------------------	---	--

Wednesday, June 6, 2018

07:00 - 08:00	Registration and Continental Breakfast (The Bridge, Floor 6, Titanic Belfast)
----------------------	--

08:00 - 08:30	Opening (Titanic Suite Floor 5, Main Conference)
----------------------	--

08:30 - 09:30	Session 1-A: Experimental Research and any Other & Numerical Modeling (The Titanic Room)	Paper ID	
	Co-Moderators: To be announced		
8:30 - 8:45	EFFECT OF COMBINED POLYPROPYLENE AND STEEL FIBRES ON PORE-PRESSURE DEVELOPMENT IN ULTRA-HIGH-PERFORMANCE CONCRETE IN FIRE Ye Li, Pierre Pimienta, Nicolas PINOTEAU, Kang Hai Tan	36	Experimental Research and any Other
8:45 - 9:00	DISCUSSION ON A SYSTEMATIC APPROACH TO VALIDATION OF SOFTWARE FOR STRUCTURES IN FIRE Joao Ferreira, Thomas Gernay, Jean-Marc Franssen	61	Numerical Modeling
9:00 - 9:15	SEISMIC PERFORMANCE OF REINFORCED CONCRETE FRAMES AFTER FIRE Ling-zhi LI, Xin Liu, Zhou-dao Lu, Kai Wei	90	Experimental Research and any Other
9:15 - 9:30	VIRTUAL TEST OF FIRE-RESISTANCE OF A TIMBER BEAM Kamila Cabova, Filip Zeman, Martin Benýšek, Stanislav Šulc, Vít Šmilauer,	154	Numerical Modeling

9:30 - 10:00	Coffee Break / Poster Session (Gallery Outside: Britania floor 5 & The Bridge floor 6)
---------------------	---

10:00 - 11:45	Session 1-B.1: Experimental Research and any Other (Titanic Suite)	Paper ID	
	Co-Moderators: To be announced		
10:00 - 10:15	PERFORMANCE ASSESSMENT OF A STRUCTURE THROUGH HYBRID (NUMERICAL-EXPERIMENTAL) SIMULATION <i>Xuguang Want, Robin Kim, Oh-Sung Kwon, In-Hwan Yeo, Jae-Kwon Ahn</i>	4	Experimental Research and any Other
10:15 - 10:30	A PI-CONTROLLER FOR HYBRID FIRE TESTING IN A NON-LINEAR ENVIRONMENT <i>Elke Mergny, Guillaume Drion, Thomas Gernay, Jean-Marc Franssen</i>	6	Experimental Research and any Other
10:30 - 10:45	RADIATIVE FLUX AFFECTING VERTICAL STEEL ELEMENT AWAY FROM THE FIRE – SIMPLIFIED METHOD LOCAF <i>Camille SAUTOT, François HANUS, Christophe THAUVOYE, Giacomo EREZ, Aurélien THIRY</i>	71	Experimental Research and any Other
10:45 - 11:00	EVALUATING UNCERTAINTY IN STEEL-COMPOSITE STRUCTURE RESPONSE UNDER FIRE – APPLICATION OF THE ME-MDRM <i>Ruben Van Coile, Thomas Gernay, Negar Elhami Khorasani, Danny Hopkin</i>	74	Experimental Research and any Other
11:00 - 11:15	EXPERIMENTAL INVESTIGATION OF LIQUID POOL BURNING BEHAVIOUR AND FAÇADE FIRES IN CORRIDOR-LIKE ENCLOSURES <i>Kostantinos Chotzoglou, Eleni Asimakopoulou, Jianping Zhang, Michael Delichatsios</i>	82	Experimental Research and any Other
11:15 - 11:30	MONITORING SPALLING OF HEATED CONCRETE USING LASER DISTANCE METRE <i>Jin-Cheng Liu, Kang Hai Tan</i>	92	Experimental Research and any Other

11:30 - 11:45	EXPERIMENTAL STUDIES ON EARLY WARNING APPROACHES OF THE COLLAPSE OF STEEL PORTAL FRAME STRUCTURES IN FIRE	Ya-Qiang JIANG, Bo ZHONG, Guo-Biao LOU, Jun-Jun LIU, Jian-Zhong RONG	108	Experimental Research and any Other
10:00 - 11:45	Session 1-B.2: Numerical Modeling (The Olympic Room) Co-Moderators: To be announced		Paper ID	
10:00 - 10:15	A STOREY-BASED STABILITY ANALYSIS APPROACH FOR PREDICTING OF THE WORST-CASE FIRE SCENARIO OF UNBRACED STEEL FRAMES	<i>Terence Ma, Lei Xu</i>	43	Numerical Modeling
10:15 - 10:30	BRANCH-SWITCHING PROCEDURE FOR BUCKLING PROBLEMS OF SLENDER STEEL ELEMENTS IN FIRE	<i>Luca Possidente, Nicola Tondini, Jean-Marc Battini</i>	64	Numerical Modeling
10:30 - 10:45	TWO-DIMENSIONAL MODELLING OF THERMAL RESPONSES OF GFRP PROFILES EXPOSED TO ISO-834 FIRE	<i>Lu Wang, Lingfeng Zhang, Weiqing Liu</i>	93	Numerical Modeling
10:45 - 11:00	CFD ANALYSES USED TO EVALUATE THE INFLUENCE OF COMPARTMENT GEOMETRY ON THE POSSIBILITY OF DEVELOPMENT OF A TRAVELLING FIRE	<i>Marion Charlier, Antonio Gamba, Xu Dai, Stephen Welch, Olivier Vassart, Jean-Marc Franssen</i>	114	Numerical Modeling
11:00 - 11:15	NUMERICAL MODELLING OF THE FIRE BEHAVIOUR OF RESTRAINED CELLULAR BEAMS USING A HYBRID SIMULATION APPROACH	<i>Mustesin Ali Khan, Dr. Liming Jiang, Dr. Katherine A. Cashell, Prof. Asif Usmani</i>	115	Numerical Modeling
11:15 - 11:30	FRACTURE SIMULATION FOR STEEL SHEAR TAB CONNECTIONS AT ELEVATED TEMPERATURE	<i>Wenyu Cai, Mohammed A. Morovat, Michael D. Engelhardt</i>	121	Numerical Modeling
11:30 - 11:45	CONTRIBUTION TO THE NUMERICAL MODELING OF THE THERMOMECHANICAL BEHAVIOR OF STEEL-REINFORCED CONCRETE BEAMS EXTERNALLY REINFORCED WITH TEXTILE REINFORCED CONCRETE (TRC)	<i>Najib DOUK, Amir SI LARBI, Xuan Hong VU, Maxime AUDEBERT</i>	123	Numerical Modeling
11:45 - 13:00	Lunch (The Bridge Floor 6 & Britania Room Floor 5)			
13:00 - 14:45	Session 1-C.1: Experimental Research and any Other (The Titanic Room) Co-Moderators: To be announced		Paper ID	
13:00 - 13:15	INSTANTANEOUS STIFFNESS CORRECTION FOR HYBRID FIRE TESTING	<i>Ramla Qureshi, Negar Elhami-Khorasani</i>	116	Experimental Research and any Other
13:15 - 13:30	EXPERIMENTAL INVESTIGATION OF THERMOMECHANICAL BEHAVIOR OF THE CARBON TEXTILE REINFORCED CONCRETE: EFFICIENCY COEFFICIENT OF CARBON TEXTILE AT ELEVATED TEMPERATURES	<i>Manh Tien TRAN, Xuan Hong VU, Emmanuel FERRIER</i>	124	Experimental Research and any Other
13:30 - 13:45	AN EXPERIMENTAL APPROACH FOR EVALUATING RESIDUAL CAPACITY OF FIRE DAMAGED CONCRETE MEMBERS	<i>Ankit Agrawal, Venkatesh Kodur</i>	126	Experimental Research and any Other
13:45 - 14:00	EVALUATION METHOD OF THERMAL ELONGATION OF STEEL BEAMS DURING FIRE BASED ON ACTUAL SCALE TESTS	<i>Tomohito Okazaki, Mamoru Kohno</i>	129	Experimental Research and any Other
14:00 - 14:15	EXPERIMENTAL STUDY ON THERMAL AND STRUCTURAL RESPONSES OF A FULL-SCALE STEEL STRUCTURE UNDER NATURAL FIRE	<i>Bo Zhong, Ya-Qiang Jiang, Guo-Biao Lou</i>	153	Experimental Research and any Other
14:15 - 14:30	FIRE RESISTANT GFRP FAÇADE SYSTEMS	<i>Kate Nguyen, Priyan Mendis, Tuan Ngo</i>	160	Experimental Research and any Other
14:30 - 14:45	HYBRID FIRE TESTING OF A SINGLE DEGREE-OF-FREEDOM LINEAR SYSTEM	<i>Ana Sauca, Chao Zhang, Artur Chernovsky, Mina Seif</i>	192	Experimental Research and any Other

13:00 - 14:30		Session 1-C.2: Numerical Modeling (The Olympic Room)		Paper ID
		Co-Moderators: To be announced		
13:00 - 13:15	A NUMERICAL METHODOLOGY TO PREDICT THE GAS/SOLID INTERACTION IN FIRE RESISTANCE TESTS	<i>Rene Prieler, Markus Mayrhofer, Markus Eichhorn-Gruber, Günther Schwabegger, Christoph Hochenauer</i>	151	Numerical Modeling
13:15 - 13:30	REDUCED-ORDER THERMAL ANALYSIS OF FIRE EFFECTS ON COMPOSITE SLABS	<i>Jian Jiang, Joseph Main, Jonathan Weigand, Fahim Sadek</i>	161	Numerical Modeling
13:30 - 13:45	NUMERICAL INVESTIGATION OF FIRE AND POST-FIRE PERFORMANCE OF CFT COLUMNS IN AN OPEN CAR PARK FIRE	<i>Wojciech Szymkuć, Adam Glema, Michał Malendowski, Aleksandra Mielcarek, Piotr Smardz, Adrian Poteralski</i>	168	Numerical Modeling
13:45 - 14:00	ANALYSIS OF THE INFLUENCE OF VENTILATION IN THE STRUCTURAL RESPONSE OF A CUT-AND-COVER TUNNEL UNDER FIRE.	<i>Juan Pagan-Martinez, Ignacio Paya-Zaforteza, Antonio Hospitaler, Toni Hospitaler</i>	194	Numerical Modeling
14:00 - 14:15	REVERSE ENGINEERING OF STANDARD TEMPERATURE CURVES TO OBTAIN THE HRR OF THE FIRE IN VARIOUS ENCLOSURE CONFIGURATIONS - WHAT CAN WE LEARN FROM THAT ?	<i>Piotr Tofilo, Wojciech Wegrzynski, Michał Malendowski</i>	195	Numerical Modeling
14:15 - 14:30	FRAGILITY OF REINFORCED CONCRETE STRUCTURE SUBJECTED TO ELEVATED TEMPERATURE	<i>Ranjit Chaudhary, Tathagata Roy, Vasant Matsagar</i>	200	Numerical Modeling
14:45 - 15:15		Coffee Break / Poster Session (Gallery Outside: Britania floor 5 & The Bridge floor 6)		
15:15 - 16:45		Session 1-D.1: Experimental Research and any Other & Numerical Modeling (The Titanic Room)		Paper ID
		Co-Moderators: To be announced		
15:15 - 15:30	EXPERIMENTAL TESTS AND SUBSEQUENT ANALYSIS OF LOCALIZED POOL FIRES IMPACTING STEEL COLUMNS AND BEAMS WITH WEB OPENINGS IN A COMPARTMENT.	<i>Ali Nadjai, Francois Hanus, Olivier Vassart, Sanghoon Han</i>	193	Experimental Research and any Other
15:30 - 15:45	ADVANCE HEAT TRANSFER ANALYSIS AND CAPACITY CURVES ACCOUNTING FOR THE EFFECT OF SPALLING	<i>Hitesh Lakhani, Jan Hofmann</i>	211	Numerical Modeling
15:45 - 16:00	FIRE RESISTANCE OF CONCRETE SLABS ACTING IN COMPRESSIVE MEMBRANE ACTION WITH VARIOUS BOUNDARY CONDITIONS	<i>Tom Molkens</i>	218	Numerical Modeling
16:00 - 16:15	STRUCTURAL IMPLICATIONS DUE TO AN EXTENDED TRAVELLING FIRE METHODOLOGY (ETFM) FRAMEWORK USING SIFBUILDER	<i>Xu Dai, Stephen Welch, Asif Usmani</i>	220	Numerical Modeling
16:15 - 16:30	ELEVATED-TEMPERATURE TENSION STIFFENING MODEL FOR REINFORCED CONCRETE STRUCTURES UNDER FIRE	<i>Jason Martinez, Ann Jeffers</i>	221	Numerical Modeling
16:30 - 16:45				
15:15 - 16:45		Session 1-D.2: Short Presentations (The Olympic Room)		Paper ID
		Co-Moderators: To be announced		
15:15 - 15:21	SCALING APPROACH FOR STUDYING FIRE RESPONSE OF STEEL BEAMS	<i>Mahmood Yahyai, Abbas Rezaiean, Peter Chang</i>	42	Experimental Research and any Other
15:21 - 15:27	EXPERIMENTAL INVESTIGATION ON THE POST-FIRE MECHANICAL PROPERTIES OF STAINLESS STEEL BOLTS A2-70 AND A4-80	<i>Ying Hu, ShengLin Tang, George Adomako Kumi</i>	142	Experimental Research and any Other
15:27 - 15:33	TIMBER AND THE FIRE RESISTANCE FURNACE – A COMPARATIVE STUDY OF THE CONDITIONS IN A FIRE RESISTANCE FURNACE WHEN TESTING COMBUSTIBLE AND NON-COMBUSTIBLE CONSTRUCTION	<i>David Lange, Johan Sjöström, Joachim Schmid, Daniel Brandon</i>	170	Experimental Research and any Other
15:33 - 15:39	NUMERICAL MODELING OF THERMAL BEHAVIOUR OF CFRP REINFORCED CONCRETE STRUCTURE EXPOSED TO ELEVATED TEMPERATURE	<i>Phi Long NGUYEN, Xuan Hong VU, Emmanuel FERRIER</i>	122	Numerical Modelling
15:39 - 15:45	BEHAVIOUR OF STEEL FRAME STRUCTURES UNDER LOCALISED FIRE INCLUDING PROGRESSIVE COLLAPSE DURING COOLING	<i>Thomas Gernay, Antonio Gamba</i>	31	Steel Structures
15:45 - 15:51	FIRE TESTS OF LOAD BEARING DOUBLE STUD LSF WALLS	<i>Harikrishnan Magarabooshanam, Anthony Ariyanayagam, Mahen Mahendran</i>	32	Steel Structures
15:51 - 15:57	STUDY ON TEMPERATURE DISTRIBUTION OF WELDED TUBULAR SQUARE JOINTS	<i>Jolanta Bączkiewicz, Mikko Malaska, Sami Pajunen, Markku Heinisuo</i>	49	Steel Structures

15:57	16:03	RESEARCH ON POST-FIRE LOAD-BEARING CAPACITY ASSESSMENT OF AXIAL RESTRAINED HIGH-STRENGTH STEEL COLUMNS	<i>Guo-Qiang Li, Jia-Rong Miao</i>	100	Steel Structures
16:03	16:09	FIBRE REINFORCED SHOTCRETE – PRESENCE OF SYNTHETIC MACRO FIBRES AFTER FIRE	<i>Cristian Maluk, Todd Clarke, Andrew Ridout</i>	155	Concrete Structures
16:09	16:15	DETERMINATION OF RESIDUAL STRENGTH OF NORMAL STRENGTH CONCRETE AFTER THE FIRE	<i>Urška Dolinar, Gregor Trtnik, Tomaž Hozjan</i>	172	Concrete Structures
16:15	16:21	MODELLING NON-METALLIC TIMBER CONNECTIONS IN FIRE	<i>Ranim Dahli, Martin Gillie, John Gales</i>	134	Timber Structures and Fire Protection Materials
16:21	16:27	INFLUENCE OF GAS TEMPERATURE DURING COOLING PHASE ON LOAD- BEARING PERIOD OF STRUCTUAL GLUED LAMINATED TIMBER BEAMS EXPOSED TO FIRE	<i>Takeo Hirashima, Yusuke Katakura, Moto Ichikawa, Shungo Ishii</i>	207	Timber Structures and Fire Protection Materials
16:27	16:33	FIRE BEHAVIOUR OF SLENDER CONCRETE-FILLED STEEL TUBULAR COLUMNS UNDER BIAXIAL BENDING	<i>Ana Espinós, Vicente Alberó, Manuel L. Romero, Maximilian Mund, Patrick Meyer, Peter Schaumann, Inka Kleiboemer</i>	138	Composite Structures
16:33	16:39	NUMERICAL ANALYSIS OF THE THERMAL BEHAVIOUR OF STEEL-TIMBER HYBRID BEAMS IN FIRE SITUATION	<i>Antoine Bereysia, Maxime Audebert, Sébastien Durif, Abdelhamid Bouchaïr</i>	171	Composite Structures
17:00 - 19:00 A visit to the Titanic Museum will be arranged					
Thursday June 7, 2018					
07:00 - 08:00 Registration and Continental Breakfast (The Bridge, Floor 6, Titanic Belfast)					
08:00 - 09:15 Session 2-A: Steel Structures & Concrete Structures (The Titanic Room)					
Co-Moderators: To be announced Paper ID					
08:00	08:15	PROGRESSIVE COLLAPSE OF BRACED STEEL FRAMED STRUCTURES EXPOSED TO FIRE	<i>Jian Jiang, Guo-Qiang Li</i>	52	Steel Structures
08:15	08:30	BEHAVIOR OF CFRP-CONCRETE BOND SYSTEM AT ELEVATED TEMPERATURES	<i>Thiago Brazeiro, João Paulo Rodrigues</i>	47	Concrete Structures
08:30	08:45	SHEAR ANALYSIS OF CLIPPED STEEL WEBS IN FIRE AND AMBIENT CONDITIONS	<i>Veronica Boyce, Maria Garlock</i>	164	Steel Structures
08:45	09:00	NUMERICAL MODEL FOR FIRE RESISTANCE EVALUATION OF STEEL REINFORCED POLYMER STRENGTHENED CONCRETE BEAMS	<i>Pratik Bhatt, Venkatesh Kodur, Rami Haweeleh, Nasser Al-Nuaimi, Jamal Abdalla</i>	127	Concrete Structures
09:00	09:15	PERFORMANCE OF INTUMESCENT FIRE PROTECTION COATINGS ON STEEL TENSION ROD SYSTEMS	<i>Mai Häßler, Dustin Häßler, Sascha Hothan, Simone Krüger</i>	38	Steel Structures
09:15 - 09:30 5-minute Oral of Posters (The Titanic Room)					
Moderator: To be announced					
09:30 - 10:00 Coffee Break/Poster Session (Gallery Outside: Britania room floor 5 & The Bridge floor 6)					
10:00 - 11:45 Session 2-B.1: Steel Structures (The Titanic Room)					
Co-Moderators: To be announced Paper ID					
10:00	10:15	PERFORMANCE OF BEAM-COLUMN SUBASSEMBLAGES OF MULTI-STORY STEEL STRUCTURES WITH CONTINUOUS COLUMNS IN SEVERE FIRES	<i>Chia Mohammadjani, Charles Clifton, Anthony Abu</i>	10	Steel Structures
10:15	10:30	FAILURE MECHANISM OF STEEL FRAMES SUBJECTED TO POST-EARTHQUAKE FIRES	<i>Gabriel-Victor Risco, Luisa Giuliani, Varvara Zania</i>	173	Steel Structures
10:30	10:45	INFLUENCE OF FIRE ON THE SHEAR CAPACITY OF STEEL-SHEATHED COLD-FORMED STEEL FRAMED SHEAR WALLS	<i>Matthew Hoehler, Blanca Andres</i>	19	Steel Structures
10:45	11:00	PRELIMINARY STUDY ON QUANTITATIVE DETERMINATION OF COLLAPSE PROCESS OF STEEL PORTAL FRAMES IN FIRE	<i>Guobiao Lou, Chenghao Wang, Jian Jiang, Guo-Qiang Li</i>	39	Steel Structures

11:00 - 11:15	STEADY-STATE AND TRANSIENT-STATE TESTS ON S355 TO S500 STEEL GRADES	<i>François Hanus, Nicolas Caillet, Sylvain Gaillard, Olivier Vassart</i>	40	Steel Structures
11:15 - 11:30	ESTIMATION OF CHARPY IMPACT VALUES FOR STEEL WELDED CONNECTIONS AT HIGH TEMPERATURE AND AFTER HEATING AND COOLING PROCESSES	<i>YE KAI, Fuminobu OZAKI</i>	46	Steel Structures
11:30 - 11:45	NUMERICAL PARAMETRIC STUDY OF COLD-FORMED STEEL C-SHAPED COLUMNS EXPOSED TO FIRE	<i>Luís Laím, João Paulo C. Rodrigues, Leroy Gardner</i>	60	Steel Structures
10:00 - 11:45	Session 2-B.2: Concrete Structures (The Olympic Room) Co-Moderators: To be announced		Paper ID	
10:00 - 10:15	EXPERIMENTAL STUDIES ON SHEAR BEHAVIOUR OF DEEP PRESTRESSED CONCRETE HOLLOW CORE SLABS UNDER FIRE CONDITIONS	<i>Hang T. N. Nguyen, Kang Hai Tan</i>	24	Concrete Structures
10:15 - 10:30	EXPERIMENTAL STUDY AND NUMERICAL SIMULATION OF FIRE RESISTANCE OF TWO-WAY RESTRAINED PRECAST CONCRETE COMPOSITE SLABS	<i>Qingfeng XU, Lingzhu Chen, Xiangmin Li, Chongqing Han, Yang Zhang, Yongchang Wang, Weichen Xue</i>	29	Concrete Structures
10:30 - 10:45	THE EFFECT OF EXPLOSIVE SPALLING ON PUNCHING SHEAR RESISTANCE OF CONCRETE SLABS EXPOSED TO FIRE	<i>Fangxia Lu, Roland Baertschi, Safak Arslantürkoglu, Johann van der Merwe, Mario Fontana</i>	74	Concrete Structures
10:45 - 11:00	ROLE OF POLYMER FIBERS IN THE PREVENTION OF EXPLOSIVE SPALLING IN ULTRA-HIGH PERFORMANCE CONCRETE	<i>DONG ZHANG, Kanghai Tan, Aravind Dasari</i>	75	Concrete Structures
11:00 - 11:15	ROLE OF LOAD ECCENTRICITY AND TRANSVERSE REINFORCEMENT IN FIRE RESISTANCE OF REINFORCED CONCRETE COLUMNS	<i>Shujaat Buch, Umesh Sharma</i>	76	Concrete Structures
11:15 - 11:30	VERIFICATION OF A TABULATED METHOD OF EUROCODE FOR CONCRETE COLUMNS USING A RESPONSE SURFACE AND ADVANCED METHODS	<i>Marcus Achenbach, Thomas Gernay, Guido Morgenthal</i>	77	Concrete Structures
11:30 - 11:45	FIRE PERFORMANCE OF CONCRETE FLAT SLABS	<i>Pasindu Weerasinghe, Priyan Mendis, Kate Nguyen, Tuan Ngo</i>	157	Concrete Structures
11:45 - 13:00	Lunch (The Bridge Floor 6 & Britania Room Floor 5)			
13:00 - 14:45	Session 2-C.1: Steel Structures (The Titanic Room) Co-Moderators: To be announced		Paper ID	
13:00 - 13:15	AN EQUIVALENT STRESS METHOD FOR CONSIDERING LOCAL BUCKLING IN BEAM FINITE ELEMENTS IN THE FIRE SITUATION	<i>Chrysanthos Maraveas, Thomas Gernay, Jean-Marc Franssen</i>	67	Steel Structures
13:15 - 13:30	BEHAVIOUR OF BOLTED CONNECTIONS COMPONENT UNDER ELEVATED TEMPERATURES	<i>Ioan Both, Ioan Marginean, Florea Dinu, Calin Neagu, Raul Zaharia</i>	77	Steel Structures
13:30 - 13:45	EXPERIMENTAL AND NUMERICAL STUDY ON FULL HIGH STRENGTH STEEL EXTENDED ENDPLATE CONNECTIONS AFTER FIRE	<i>Xuhong Qiang, Xu Jiang, Frans Bijlaard</i>	87	Steel Structures
13:45 - 14:00	DIRECT METHOD FOR CRITICAL TEMPERATURE OF A STEEL MEMBER SUSCEPTIBLE TO STABILITY LOSS	<i>Teemu Tiainen, Timo Jokinen, Jolanta Baczkiewicz, Mikko Salminen</i>	95	Steel Structures
14:00 - 14:15	ANALYTICAL DETERMINATION OF TEMPERATURE DISTRIBUTION IN STEEL CABLES CONSIDERING CAVITY RADIATION EFFECT	<i>Yong Du, Liang Li, Jian Jiang, Guo-Qiang Li</i>	98	Steel Structures
14:15 - 14:30	DEVELOPMENT OF AN ANALYTICAL METHOD FOR THE FIRE RESISTANCE CALCULATION OF ANGELINA BEAMS	<i>Olivier Vassart, François Hanus, Jérôme Randaxhe</i>	104	Steel Structures
14:30 - 14:45	TESTS ON CREEP BUCKLING OF HIGH STRENGTH STEEL COLUMNS AT ELEVATED TEMPERATURES	<i>Weiyong Wang, Linbo Zhang, Hongyang Zhou, Venkatesh Kodur</i>	110	Steel Structures
13:00 - 14:45	Session 2-C.2: Concrete Structures & Applications of Structural Fire Safety Engineering (The Olympic Room) Co-Moderators: To be announced		Paper ID	
13:00 - 13:15	STRUCTURAL BEHAVIOUR OF R/C BEAMS EXPOSED TO NATURAL FIRES	<i>Nataša Kalaba, Venkatesh Kodur, Ankit Agrawal, Patrick Bamonte</i>	175	Concrete Structures
13:15 - 13:30	RESIDUAL STRENGTH OF ULTRA-HIGH PERFORMANCE FIBRE REINFORCED CONCRETE	<i>Charles Kahanji, Faris Ali, Ali Nadjai</i>	177	Concrete Structures

13:30 - 13:45	STUDY OF FIRE RESISTANCE OF RC COLUMNS WITH VARYING SHEAR REINFORCEMENT	<i>HEMANTH KUMAR CHINTHAPALLI, Anil Agarwal</i>	178	Concrete Structures
13:45 - 14:00	ON THE PULL-OUT CAPACITY OF POST-INSTALLED BONDED ANCHORS AND REBARS DURING FIRE	<i>Hitesh Lakhani, Jan Hofmann</i>	182	Concrete Structures
14:00 - 14:15	DESIGN OF POST TENSIONED CONCRETE STRUCTURES EXPOSED TO TRAVELLING FIRES	<i>Chloe Jeanneret, John Gales, Panagiotis Kotsovinos, Guillermo Rein</i>	189	Concrete Structures
14:15 - 14:30	DESIGN FIRES FOR PERFORMANCE-BASED FIRE ENGINEERING OF BRIDGES	<i>Jiayu Hu, Xu Dai, Asif Usmani, Ricky Carvel</i>	83	Applications of Structural Fire Safety Engineering
14:30 - 14:45	STRUCTURAL DESIGN OF TALL BUILDINGS UNDER MULTI-STOREY FIRES	<i>Graeme Flint, Panagiotis Kotsovinos, Yavor Panev, Peter Woodburn</i>	181	Applications of Structural Fire Safety Engineering
14:45 - 15:15	Coffee Break/Poster Session (Gallery Outside: Britania room floor 5 & The Bridge floor 6)			
15:15 - 17:00	Session 2-D.1: Steel Structures (The Titanic Room)		Paper ID	
	Co-Moderators: To be announced			
15:15 - 15:30	DEVELOPING FRAGILITY CURVES & ESTIMATING FAILURE PROBABILITIES FOR PROTECTED STEEL STRUCTURAL ELEMENTS SUBJECT TO FULLY DEVELOPED FIRES	<i>Danny Hopkin, Ruben Van Coile, Ian Fu</i>	135	Steel Structures
15:30 - 15:45	STABILITY CHECK OF TAPERED STEEL BEAMS IN FIRE	<i>Carlos Couto, Élio Maia, Paulo Vila Real, Nuno Lopes</i>	149	Steel Structures
15:45 - 16:00	EFFECTIVENESS OF STIFFENERS ON THE SHEAR CAPACITY OF STEEL WEB PLATES AT AMBIENT AND ELEVATED TEMPERATURES	<i>Veronica Boyce, Jonathan Glassman, Maria Garlock</i>	166	Steel Structures
16:00 - 16:15	EXPERIMENTAL ANALYSIS OF THE INFLUENCE OF CREEP ON FIRE-EXPOSED STEEL AND ALUMINIUM COLUMNS	<i>Neno Torić, Ivica Boko, Vladimir Divić, Ian W. Burgess, Marko Goreta</i>	18	Steel Structures
16:15 - 16:30	CHARACTERISING THE THERMOMECHANICAL RESPONSE OF COLUMNS SUBJECT TO LOCALISED FIRES	<i>Yavor Panev, Teodor Sofroniev, Luke Bisby, Panagiotis Kotsovinos, Graeme Flint</i>	184	Steel Structures
16:30 - 16:45	CROSS-SECTION RESISTANCE OF SLENDER STAINLESS STEEL I PROFILES IN CASE OF FIRE	<i>Nuno Lopes, Carlos Couto, Jorge Azevedo, Paulo Vila Real</i>	186	Steel Structures
16:45 - 17:00	IMPLICATION OF THE END CONNECTION TYPE OF STEEL BEAMS ON THE CRITICAL/LIMITING TEMPERATURE EQUATIONS	<i>Jashnav Pancheti, Arul S Jayachandran</i>	196	Steel Structures
15:15 - 17:00	Session 2-D.2: Steel Structures & Applications of Structural Fire Safety Engineering (The Olympic Room)		Paper ID	
	Co-Moderators: To be announced			
15:15 - 15:30	DIRECT STRENGTH METHOD FOR CALCULATING DISTORTIONAL BUCKLING RESISTANCE OF COLD-FORMED THIN-WALLED STEEL BEAMS WITH NON-UNIFORM ELEVATED TEMPERATURES	<i>Mutiu Alabi-Bello, Yong Wang</i>	204	Steel Structures
15:30 - 15:45	THERMO-MECHANICAL BEHAVIOUR OF STRUCTURAL STAINLESS STEEL FRAMES IN FIRE	<i>MIAN ZHOU, Rui Cardoso, Hamid Bahai, Asif Usmani</i>	225	Steel Structures
15:45 - 16:00	EFFECTS OF TOPCOAT ON INSULATION OF INTUMESCENT COATING FOR FIRE PROTECTION OF STEEL STRUCTURES	<i>Qing Xu, Guo-Qiang Li, Xiao Zhao, Xing-Yuan Zhao</i>	103	Steel Structures
16:00 - 16:15	CALCULATING FIRE-INDUCED HEAT FLUX CONTOURS ON CONCRETE TUNNEL LINERS TO EVALUATE STRUCTURAL CONSEQUENCES	<i>Kyle Root, Qi Guo, Spencer Quiel, Clay Naito</i>	190	Applications of Structural Fire Safety Engineering
16:15 - 16:30	PROGRESSIVE COLLAPSE MECHANISMS OF STEEL-FRAME BUILDINGS DUE TO MOVING FIRES	<i>Erica Fischer, Amit Varma</i>	191	Applications of Structural Fire Safety Engineering
16:30 - 16:45	FIRE-INDUCED PROGRESSIVE COLLAPSE OF PLASCO BUILDING IN TEHRAN	<i>Amir Saedi Daryan, Hesam Ketabdari, Mahmood Yahyai, Mohammed Ali Morovat, Michael Engelhardt</i>	197	Applications of Structural Fire Safety Engineering
16:45 - 17:00	COLLAPSE ANALYSIS OF THE PLASCO TOWER USING OPENSEES	<i>Hamzeh Hajiloo, Liming Jiang, Asif Usmani, Mark Green</i>	214	Applications of Structural Fire Safety Engineering

19:00 - 22:00		Dinner (City Hall Belfast)		
Friday, June 8, 2018				
07:00 - 08:00		Continental Breakfast (The Bridge, Floor 6, Titanic Belfast)		
08:00 - 09:15		Session 3-A: Timber Structures and Fire Protection Materials & Composite Structures (The Titanic Room) Co-Moderators: To be announced		Paper ID
08:00 - 08:15	PARAMETRIC STUDIES ON BEAM-TO-COLUM STEEL-O-TIMBER DOWELLED CONNECTIONS EXPOSED TO FIRE	<i>Pedro Palma, Andrea Frangi</i>	2	Timber Structures and Fire Protection Materials
08:15 - 08:30	EXPERIMENTAL AND NUMERICAL INVESTIGATIONS ON THE LOAD BEARING BEHAVIOUR OF AN INNOVATIVE PRESTRESSED COMPOSITE FLOOR SYSTEM UNDER A NATURAL FIRE SCENARIO	<i>Peter Schaumann, Patrick Meyer, Martin Mensinger, Suet Kwan Koh</i>	136	Composite Structures
08:30 - 08:45	FIRE TESTS TO ASTM E119 ON FULL-SIZE GLULAM BEAM TO COLUMN CONNECTIONS	<i>David Barber</i>	56	Timber Structures and Fire Protection Materials
08:45 - 09:00	LOAD-BEARING FIRE TESTS OF UNPROTECTED COMPOSITE BEAMS PINNED WITH STEEL GIRDERS	<i>Robert Dwiputra, Naoya Yotsumoto, Takeo Hirashima, Fuminobu Ozaki, Yukio Murakami, Kei Kimura</i>	137	Composite Structures
09:00 - 09:15	FIRE SAFETY CHALLENGES OF TALL WOOD BUILDINGS: LARGE-SCALE CROSS LAMINATED TIMBER COMPARTMENT FIRE TESTS	<i>Matthew Hoehler, Joseph Su, Pier-Simon Lafrance, Matthew Bundy, Amanda Kimball, Daniel Brandon, Birgit Östman</i>	84	Timber Structures and Fire Protection Materials
9:15 - 9:45		Coffee Break / Poster Session (Gallery Outside: Britania room floor 5 & The Bridge floor 6)		
9:45 - 11:00		Session 3-B.1: Timber Structures and Fire Protection Materials (The Titanic Room) Co-Moderators: To be announced		Paper ID
9:45 - 10:00	THERMAL CHARACTERISATION AND FIRE PERFORMANCE OF PCM-PLASTERBOARDS	<i>Sayilacksha Gnanachelvam, Mahen Mahendran, Anthony Ariyanayagam, Poologanathan Keerthan</i>	33	Timber Structures and Fire Protection Materials
10:00 - 10:15	FIRE-RETARDANT COATINGS FOR CONCRETE SUBSTRATE: A COMPARSION BETWEEN ONE-DIMENSIONAL AND TWO-DIMENSIONAL HEAT TRANSFER	<i>Yan Hao Ng, Aravind Dasari, Kang Hai Tan</i>	50	Timber Structures and Fire Protection Materials
10:15 - 10:30	A METHODOLOGY FOR QUANTIFYING FIRE RESISTANCE OF EXPOSED STRUCTURAL MASS TIMBER ELEMENTS	<i>David Barber, Lizzie Sieverts, Robert Dixon, Jarrod Alston</i>	57	Timber Structures and Fire Protection Materials
10:30 - 10:45	NUMERICAL MODEL FOR THE FIRE PROTECTION PERFORMANCE OF INTUMESCENT COATINGS EXPOSED TO NATURAL FIRES	<i>Waldemar Weisheim, Peter Schaumann, Lisa Sander, Jochen Zehfuß</i>	65	Timber Structures and Fire Protection Materials
10:45 - 11:00	FIRE RESISTANCE OF TIMBER FRAME ASSEMBLIES WITH CAVITIES PARTIALLY FILLED BY INSULATION MATERIALS	<i>Mattia Tiso, Alar Just</i>	76	Timber Structures and Fire Protection Materials

9:45 - 11:00		Session 3-B.2: Composite Structures (The Olympic Room)			Paper ID
		Co-Moderators: To be announced			
9:45 - 10:00	EXPERIMENTAL AND ANALYTICAL INVESTIGATION ON THERMAL PERFORMANCE OF SLIM FLOOR BEAMS WITH WEB OPENINGS IN FIRE	<i>Naveed Alam, Ali Nadjai, Faris Ali, Olivier Vassart, Francois Hanus</i>	12	Composite Structures	
10:00 - 10:15	FIRE PERFORMANCE OF STEEL REINFORCED ULTRA HIGH TOUGHNESS CEMENTITIOUS COMPOSITES BEAM	<i>Chaojie Sun, Qinghua Li, Junfeng Lu, Shilang Xu</i>	21	Composite Structures	
10:15 - 10:30	NUMERICAL AND EXPERIMENTAL INVESTIGATION OF THE STRUCTURAL BEHAVIOR OF PERFORATED BEAMS EXPOSED TO HYDROCARBON FIRES IN OFFSHORE PLATFORMS	<i>Hooman Atefi</i>	25	Composite Structures	
10:30 - 10:45	EXPERIMENTAL STUDY OF A STEEL-CONCRETE COMPOSITE BRIDGE UNDER FIRE	<i>José Alós-Moya, Ignacio Paya-Zaforteza, Antonio Hospitaler</i>	26	Composite Structures	
10:45 - 11:00	EXPERIMENTAL INVESTIGATION OF POST-TENSIONED CONCRETE BRIDGE BEAMS EXPOSED TO HYDROCARBON FIRE	<i>XI QIANG WU, FRANCIS TAT KWONG AU, JING LI</i>	27	Composite Structures	
11:00 - 11:30		Coffee Break / Poster Session (Gallery Outside: Britania room floor 5 & The Bridge floor 6)			
11:30 - 12:30		Session 3-B.3: Timber Structures and Fire Protection Materials (The Titanic Room)			Paper ID
		Co-Moderators: To be announced			
11:30 - 11:45	THE USE OF FURNACE TESTS TO DESCRIBE REAL FIRES FOR TIMBER STRUCTURES	<i>Joachim Schmid, David Lange, Johan Sjöström, Daniel Brandon, Michael Klippel, Andrea Frangi</i>	81	Timber Structures and Fire Protection Materials	
11:45 - 12:00	INVESTIGATION OF DIFFERENT TEMPERATURE MEASUREMENT DESIGNS AND INSTALLATIONS IN TIMBER MEMBERS AS LOW CONDUCTIVE MATERIAL	<i>Reto Fahrni, Joachim Schmid, Michael Klippel, Andrea Frangi</i>	99	Timber Structures and Fire Protection Materials	
12:00 - 12:15	EVALUATION OF FIRE RESISTANCE OF STEEL BEAMS WITH PARTIALLY DAMAGED FIRE PROTECTION	<i>Mustafa Mahamid, Ataollah Taghipour Anvari, Ines Torra-Bilal</i>	131	Timber Structures and Fire Protection Materials	
12:15 - 12:30	IMPROVEMENTS TO THE COMPONENT ADDITIVE METHOD	<i>Katrin Nele Mäger, Alar Just, Andrea Frangi</i>	156	Timber Structures and Fire Protection Materials	
11:30 - 12:30		Session 3-B.4: Composite Structures (The Olympic Room)			Paper ID
		Co-Moderators: To be announced			
11:30 - 11:45	FIRE BEHAVIOUR OF STEEL REINFORCED CONCRETE FILLED STAINLESS STEEL TUBULAR (SRCFSS) COLUMNS WITH SQUARE HOLLOW SECTION	<i>Qinghua Tan, Leroy Gardner, Bin Chen, Linhai Han, Yaoyuan Zhang</i>	44	Composite Structures	
11:45 - 12:00	BEHAVIOR OF CIRCULAR CONCRETE-FILLED DOUBLE-SKIN, DOUBLE-TUBE AND INNER RING TUBULAR COLUMNS SUBJECTED TO FIRE	<i>Aline Camargo, João Paulo Rodrigues, Ricardo Fakury, Tiago Pires</i>	48	Composite Structures	
12:00 - 12:15	NUMERICAL AND EXPERIMENTAL TESTS ON CONCRETE FILLED SQUARE AND RECTANGULAR HOLLOW COLUMNS SUBJECTED TO FIRE	<i>Luís Laím, João Paulo C. Rodrigues, Venkatesh K.R. Kodur</i>	62	Composite Structures	
12:15 - 12:30	INVESTIGATION OF PARTIAL CONNECTION THEORY ON COMPOSITE BEAMS UNDER FIRE EXPOSURE	<i>Sven Brunkhorst, Jochen Zehfuß, Samuel Pfenning, Martin Mensinger</i>	113	Composite Structures	
12:30 - 13:45		Lunch (The Bridge Floor 6 & Britania Room Floor 5)			

13:45 - 15:15		Session 3-C: Timber Structures and Fire Protection Materials & Composite Structures (The Titanic Room)		Paper ID	
Co-Moderators: To be announced					
13:45 - 14:00	EXPERIMENTAL FIRE-SIMULATOR FOR POST-FLASHOVER COMPARTMENT FIRES	<i>Daniel Brandon, Joachim Schmid, Joseph Su, Matthew Hoehler, Birgit Östman, Amanda Kimball</i>	217	Timber Structures and Fire Protection Materials	
14:00 - 14:15	KEY GOVERNING FACTORS THAT DEFINE THE FIRE PERFORMANCE OF STRUCTURAL INSULATED PANELS USED IN FLOOR SYSTEMS	<i>Aaron Bolanos, Jose L. Torero, Cristian Maluk</i>	130	Composite Structures	
14:15 - 14:30	STUDY ON THE USE OF CENOSPHERE-BASED ULTRA-LIGHTWEIGHT CEMENT COMPOSITE FOR ENHANCING FIRE PERFORMANCE OF CONCRETE-FILLED TUBULAR COLUMNS	<i>Wojciech Szymkuć, Piotr Tokłowicz, Adam Glema, Hélder Craveiro</i>	174	Composite Structures	
14:30 - 14:45	METHODS TO ASSESS THE BEARING CAPACITY OF CONCRETE-FILLED HOLLOW SECTION COLUMNS IN FIRE	<i>Alberto Compagnone, Antonio Bilotta, Emidio Nigro</i>	199	Composite Structures	
14:45 - 15:00	FIRE PERFORMANCE OF LONG-SPAN COMPOSITE BEAMS WITH GRAVITY CONNECTIONS	<i>Lisa Choe, Selvarajah Ramesh, Mina Seif, Matthew Hoehler, William Grosshandler, John Gross, Matthew Bundy</i>	206	Composite Structures	
15:00 - 15:15					
15:45 - 16:30		Closing Ceremony (Titanic Room)			

POSTERS			Paper ID	
1	SCALING APPROACH FOR STUDYING FIRE RESPONSE OF STEEL BEAMS	<i>Mahmood Yahyai, Abbas Rezaiean, Peter Chang</i>	42	Experimental Research and any Other
2	EXPERIMENTAL INVESTIGATION ON THE POST-FIRE MECHANICAL PROPERTIES OF STAINLESS STEEL BOLTS A2-70 AND A4-80	<i>Ying Hu, ShengLin Tang, George Adomako Kumi</i>	142	Experimental Research and any Other
3	TIMBER AND THE FIRE RESISTANCE FURNACE – A COMPARATIVE STUDY OF THE CONDITIONS IN A FIRE RESISTANCE FURNACE WHEN TESTING COMBUSTIBLE AND NON-COMBUSTIBLE CONSTRUCTION	<i>David Lange, Johan Sjöström, Joachim Schmid, Daniel Brandon</i>	170	Experimental Research and any Other
4	NUMERICAL MODELING OF THERMAL BEHAVIOUR OF CFRP REINFORCED CONCRETE STRUCTURE EXPOSED TO ELEVATED TEMPERATURE	<i>Phi Long NGUYEN, Xuan Hong VU, Emmanuel FERRIER</i>	122	Numerical Modelling
5	BEHAVIOUR OF STEEL FRAME STRUCTURES UNDER LOCALISED FIRE INCLUDING PROGRESSIVE COLLAPSE DURING COOLING	<i>Thomas Gernay, Antonio Gamba</i>	31	Steel Structures
6	FIRE TESTS OF LOAD BEARING DOUBLE STUD LSF WALLS	<i>Harikrishnan Magarabooshanam, Anthony Ariyanayagam, Mahen Mahendran</i>	32	Steel Structures
7	STUDY ON TEMPERATURE DISTRIBUTION OF WELDED TUBULAR SQUARE JOINTS	<i>Jolanta Bączkiewicz, Mikko Malaska, Sami Pajunen, Markku Heinisuo</i>	49	Steel Structures
8	RESEARCH ON POST-FIRE LOAD-BEARING CAPACITY ASSESSMENT OF AXIAL RESTRAINED HIGH-STRENGTH STEEL COLUMNS	<i>Guo-Qiang Li, Jia-Rong Miao</i>	100	Steel Structures
9	FIBRE REINFORCED SHOTCRETE – PRESENCE OF SYNTHETIC MACRO FIBRES AFTER FIRE	<i>Cristian Maluk, Todd Clarke, Andrew Ridout</i>	155	Concrete Structures
10	DETERMINATION OF RESIDUAL STRENGTH OF NORMAL STRENGTH CONCRETE AFTER THE FIRE	<i>Urška Dolinar, Gregor Trtnik, Tomaž Hozjan</i>	172	Concrete Structures
11	MODELLING NON-METALLIC TIMBER CONNECTIONS IN FIRE	<i>Ranim Dahli, Martin Gillie, John Gales</i>	134	Timber Structures and Fire Protection Materials
12	INFLUENCE OF GAS TEMPERATURE DURING COOLING PHASE ON LOAD-BEARING PERIOD OF STRUCTURAL GLUED LAMINATED TIMBER BEAMS EXPOSED TO FIRE	<i>Takeo Hirashima, Yusuke Katakura, Moto Ichikawa, Shungo Ishii</i>	207	Timber Structures and Fire Protection Materials
13	FIRE BEHAVIOUR OF SLENDER CONCRETE-FILLED STEEL TUBULAR COLUMNS UNDER BIAXIAL BENDING	<i>Ana Espinós, Vicente Alberó, Manuel L. Romero, Maximilian Mund, Patrick Meyer, Peter Schaumann, Inka Kleiboemer</i>	138	Composite Structures
14	NUMERICAL ANALYSIS OF THE THERMAL BEHAVIOUR OF STEEL-TIMBER HYBRID BEAMS IN FIRE SITUATION	<i>Antoine Bereysia, Maxime Audebert, Sébastien Durif, Abdelhamid Bouchair</i>	171	Composite Structures

* A prize will be awarded to the best poster.

** A prize will be awarded to the best short presentation.