Ver. 7 8/27/2018

DAY 1 - August 29 (Wed)					
Time/Chairs	**Session**	**Speaker's Name**	**Organization**	**Presentation Title**	**Lead author + Co-authors**
0800-0900	Breakfast Reception		/ Registration /		
0900-0920	Greetings from Politecnico di Milano /		Announcement and General Information /		
0920-1050	LS-1	Elia Merzari	ANL	Large Eddy Simulation and Direct Numerical Simulation of Reactor Core Flows	E Merzari
Chair: *H. Ninokata*	CFD and Rod Bundle Theramal Hydraulics	Jean-Paul Chabard	EDF	Recent advances at EDF in numerical simulation of single and two-phase flows applied to Nuclear Reactor Core Thermal Hydraulic Analysis	Jean-Paul Chabard, Sofiane Benhamadouche, Martin Ferrand, Yvan Fournier, Mathieu Guingo, Chai Koren, Jérôme Laviéville, Erwan Le Coupanec, Nicolas Mérigoux, Stéphane Mimouni, Jean-François Wald
		Ferry Roelofs	NRG Petten	Core Thermal Hydraulic CFD Support for Liquid Metal Reactors	F Roelofs, H Uitslag-Doolaard, D Dovizio, D De Santis, A Shams
1050-1110	Coffee break				
1110-1215	TS-1	Igor Bolotnov	NCSU	Simulation scaling studies of reactor core two-phase flow using direct numerical simulation approach	J Cambareri, J Fang, I Bolotnov
Chair: *E. Baglietto*	Two-phase flow/1	Lukas Robers	ETH Zurich	Effect of part length rods and pulsed flow on the liquid phase in a BWR subchannel	L. Robers and H-M Prasser
		Christian Bolesch	ETH Zurich	Non-adiabatic annular flow experiments in a subchannel geometry with spacer grid	Christian Bolesch, Lukas Robers, Robert Adams, Horst-Michael Prasser
1215-1330	Lunch break				
1330-1500	LS-2	Yassin Hassan	TAMU	Measurements in Various Reactor Bundles using Matched Refractive Index for CFD Validation and Uncertainties Quantification	Y Hassan
Chair: *N.E. Todreas*	Experiment and SCA	Shih-Kuei Chen	NTHU	Upgraded Cheng and Todreas Correlation(UCTD) for Wire-Wrapped Rod Bundles and Data Reliability as well as Role of CFD Results	S-K Chen, Y-M Chen, and N E Todreas
		Xu Cheng	KIT	Transversal exchange and heat transfer in sub-channel analysis	Xiaojing Liu, Xu Cheng
1500-1530	Coffee break				
1530-1630	TS-2	Jean-Marie Le Corre	WEC	Measurement of Local Two-phase Flow Parameters in Fuel Bundle at the Westinghouse FRIGG Facility	J-M Le Corre
Chair: *H.M. Prasser*	Rod bundle experiment	Kenichi Katono	Hitachi	Influence of Rod-pitch on Void Fraction Distribution in an Unheated 5 × 5 Rod Bundle under Low Flow Rate and Wide Range of Pressure Conditions	K. Katono, K. Fujimoto, G. Aoyama, Y. Nagasawa and T. Arai
		Yong-Seok Choi	KAERI	Effect of surface oxidation on the critical heat flux in transient pool boiling condition	Jun-Young Kang, Seung-Hyun Hong, Yong-Seok Choi, Byong-Gook Jeon, and Sang-Ki Moon
1635-1720	TS-3 CHF	WenXing Liu	NPIC	Theoretical study on critical heat flux characteristics under inlet flow oscillation conditions	Wenxing Liu, Dawei Zhao, Yuanfeng Zan, Yanping Huang
Chair: *X.D. Sun*	General	Norma O'Mahony	UK Horizon Nuclear Power	Control Cell Core (CCC) design for the UK Advanced Boiling Water Reactor and possible future enhancements	N O'Mahony

DAY 2 - August 30 (Thu)					
Time/Chairs	**Session**	**Speaker's Name**	**Organization**	**Presentation Title**	**Lead author + Co-authors**
0900-1030 *Chair:* *B.W. Yang*	LS-3 Two-phase flow modeling and CFD	Tomio Okawa	UEC	Phenomenological modelling of void development in subcooled flow boiling	Tomio Okawa, Shintaro Sakamoto, Hiroki Ohori, Koji Enoki
		Xiaodong Sun	U Mich	Interfacial Area Transport Equation and its Applications	X-D Sun, S-J Kim, M Ishii
		Emilio Baglietto	MIT	Computational Fluid Dynamics Application to Fuel Design and Licensing: a biased review of the status and open challenges	E Baglietto
1030-1100	Coffee break				
1100-1140 (Parallel) *Chair:* *S.K. Moon*	TS-4 CFD applications to flow in rod bundle	Bing Ren	SNERDI	CFD simulation of boiling flow in PWR 5 × 5 rod bundle with PBM method	Bing Ren, Fujun Gan, Ping Yang, Libing Zhu
		Blaz Mikuz	NRG Petten	Assessment of different turbulence modelling approaches for the prediction of flow and heat transfer in a loosely spaced bare rod bundle	Blaz Mikuz, Afaque Shams
		FuJun Gan	SNERDI	Research on TDC Prediction Method Based on CFD and Subchannel method	Fujun Gan, Chaozhu Zhang, Ping Yang, Libing Zhu
1100-1140 (Parallel) *Chair:* *K. Katono*	TS-5 Subchannel analysis models (scrubbing)	Siying Dong	XJTU	Improvement of spacer grid model in subchannel analysis code ATHAS	Siying Dong, Yang Liu, Jianqiang Shan
		TianZe Li	XJTU	Cold Wall Effects of Control Rod Guide Tubes and Experimental Flow Channel Walls	Tianze Li, Hongmei Lyu, Bao-wen Yang
		Shimpei Saito	U Tsukuba	Experimental study of bubble and aerosol dynamics during pool scrubbing	Shimpei Saito, Kota Fujiwara, Wataru Kikuchi, Yuki Nakamura, Tomohisa Yuasa, Akiko Kaneko, Yutaka Abe
1200-1320 Lunch break	Special Topics (30')	Kenichirou Nozaki	TEPSYS	Analysis of hydrogen explosion at Fukushima Daiichi Unit 1 reactor building	K. Nozaki, T. Honda, D. Yamauchi, M. Mizokami, S. Mizokami, T. Kumaki, S. Ishikura, M. Yoshida
1320-1450	Panel Session	Organized by Tech Program Committee		Collaboration of SCA, CFD and Experiment - for closer interactions among industry, national labs and accademia	Panelist: E. Merzari, E. Baglietto, H-M. Prasser, J-M. Le Corre, K. Katono. Moderator: H. Ninokata
1450-1550 Chair: *Y. Hassan*	LS-4 Experiment / Subchannel analysis	Horst-Michael Prasser	ETH Zurich	Detailed characterization of a bubbly flow in a PWR rod bundle geometry with spacer grids	H.-M. Prasser
		Maria Avramova	NCSU	Developments in thermal-hydraulics sub-channel modeling for whole core multi-physics simulations ***(Remote presentation)***	M Avramova
1550-1610	Coffee break				
1610-1735 (Parallel) *Chair:* *T. Okawa*	TS-6 CFD-SCA and grid spacer mixing	In-Cheol Bang	UNIST	Study on the Effects of Flow-driven Rotational Mixing Vanes using FLOW-3D Code	In Cheol Bang, Haneol Park
		Blaz Mikuz	NRG Petten	Low resolution modelling of mixing phenomena in PWR fuel assembly with split-type mixing grid	Blaz Mikuz, Ferry Roelofs
		SiPeng Wang	XJTU	Measurement Uncertainty Due To Quenching Phenomena In Uniform Heating Rod Bundle CHF Tests	Sipeng Wang, Bao-Wen Yang
1610-1735 (Parallel) *Chair:* *J.P. Chabard*	TS-7 Two-phase flow/2	SiPeng Wang	XJTU	Investigation on Effect of Opening Channel on Flow Instability	Sipeng Wang, Bao-Wen Yang, Jianping Long
		Fumihito Kimura	U Tsukuba	Three-dimensional visualization of liquid jet shape falling into a shallow pool	Fumihito Kimura, Hiroyuki Yoshida, Shimpei Saito, Akiko Kaneko, Yutaka Abe
		Akihiro Futsuta	U Tsukuba	Experimental investigation of operative conditions of steam injector	Akihiro Futsuta, Yuki Kamata, Akiko Kaneko, Yutaka Abe
2000-	Dinner	Hotel Griso, Detail to be announced			

DAY 3 - August 31 (Fri)					
Time/Chairs	**Session**	**Speaker's Name**	**Organization**	**Presentation Title**	**Lead author + Co-authors**
0900-1030 *Chair:* *F. Roelofs*	LS-5 Severe Accidents and Accidents	Sang-Ki Moon	KAERI	Multi-dimensional and multi-physics coupled safety assessment of core thermal-hydraulics under accident conditions	Sang-Ki Moon, Seok Kim, Byong-Gook Jeoa, Jongrok Kim, Jae-Bong Lee, Yong-Seok Choi
		Koroush Shirvan	MIT	Implication of LWR Mechanical Failure Modes, Reactor Environment and Accident Tolerant Fuels on Thermal-Hydraulic Research	K. Shirvan
		Yong-Hoon Jeong	KAIST	Critical Heat Flux Enhancement for Severe Accident Mitigation with Removal of Radioactive Materials form the Coolant	Y.H. Jeong
1030-1100	Coffee break				
1100-1205 (Parallel) *Chair:* *K. Shirvan*	TS-8 Severe Accident	Masanori Naito	IAE	The SAMPSON code with fully mechanistic models for LWR severe accident analysis	M. Naito
		Marco Pellegrini	IAE	Reinterpretation of severe accident code modeling in light of the findings at Fukushima Daichii NPPs	M. Pellegrini, M. Naitoh, S. Mizokami
		Cen Wei	XJTU	Numerical Study of the Impact of the Partially Blocked Rod Bundle on the Flow field	Cen Wei, Bao-Wen Yang, Bin Han
1100-1205 (Parallel) *Chair:* *S. Lorenzi*	TS-9 Advanced numercial simulation of MSR	Seok-Bin Seo	UNIST	Adjoint-based sensitivity analysis of passive heat removal system using molten salt	Seok Bin Seo, In Cheol Bang, Antonio Cammi
		Francesco Silva	POLIMI	Development of Data-Driven Approach Based on Reduced Basis Methods for CFD Reactor Analysis	Francesco Silva, Stefano Lorenzi, Antonio Cammi
		Carolina Introni	POLIMI	Dynamic Mode Decomposition for the Stability Analysis of the Molten Salt Fast Reactor Core	Carolina Introini, Antonio Cammi, Eric Cervi, Andrea Di Ronco, Stefano Lorenzi
1205-1325	Lunch break				
1325-1455 *Chair:* *E. Merzari*	LS-6 General	YiCan Wu	FDS/INEST	Overview of Lead-based Reactor Development and Thermal-hydraulics Activities in China	Yican Wu, Zhumin Zhao, Liqin Hu, Yong Song, Tao Zhou, Fang Wang, Ming Jin, Chao Liu, Yunqing Bai, Sheng Gao, Qingsheng Wu, Yong Zhang, Zhibin Chen
		Chikako Iwaki	Toshiba	A review of the thermal-hydraulics and FIV evaluation of BWR fuel assemblies	C. Iwaki, M. Warashina, A. Tanabe
		Tomoaki Kunugi	Kyoto U	Numerical simulation on boiling phenomena: A review	T. Kunugi
1455-1520	Coffee break				
1520-1625 (Parallel) *Chair:* *F.J. Gan*	TS-10 CHF and subchannel analysis	Yuki Narushima	Hitachi	Applicability of film flow model coupled with subchannel analysis to critical power prediction of BWR under high heat flux condition	Y. Narushima and K. Katono
		DaWei Zhao	NPIC	Rod Bundle DNB Prediction by Liquid Sublayer Dryout Model Based on Subchannel Analysis	Dawei Zhao, Liu Wenxing, Juliana Pacheco Duarte, Michael L. Corradini
		Xiaodong Sun	U Mich	Wall Heat Transfer in the Inverted Annual Film Boiling Regime	Q-Q Liu, S-B Shi, X-D Sun, J Kelly
1520-1625 (Parallel) *Chair:* *I. Bolotnov*	TS-11 Multiphysics	Yeong-Shin Jeong	UNIST	Multiphysics Approach on the Parameter Sensitivity Analysis of Molten Salt Reactor Using Adjoint Method	Yeong Shin Jeong, Eric Cervi, Antonio Cammi, In Cheol Bang
		Christian Castagna	POLIMI	Coupled neutronic and thermal-hydraulic model for ALFRED reactor	Christian Castagna, Mostafa Jamalipour, Antonio Cammi, Stefano Lorenzi
		Manuele Aufiero	MMP	Testing and verification of multiphysics tools for fast-spectrum MSRs: the CNRS benchmark	M.Aufiero, P. Rubiolo
1630-1650	Closing				