

## NUTHOS-12 Conference Schedule

<b>Date: Sunday, Oct. 14<sup>th</sup></b>	
<b>Time: Oct. 14<sup>th</sup> 10:00 - 22:00 + Oct. 15<sup>th</sup> 10:00 - 14:00</b>	
<b>Registration</b>	<b>Room:</b>
<b>Time: 16:30 – 18:00</b>	
<b>CONUSAF Workshop</b>	<b>Room: Fushan Bay 9</b>
<i>Session Chairs: Prof. Francesco D'AURIA (UNIFI, Italy)</i>	
<b>Time: 17:30 – 20:00</b>	
<b>Reception Dinner</b>	<b>Room: Qingdao Impression Ballroom</b>

<b>Date: Monday, Oct. 15<sup>th</sup>, Morning</b>	
<b>Time: 8:30 – 9:15</b>	
<b>Opening Ceremony</b>	<b>Room: Qingdao Impression Ballroom</b>
<b>Time: 9:15 – 10:25</b>	
<b>Plenary Speech 1</b>	<b>Room: Qingdao Impression Ballroom</b>
<i>Session Chairs: Prof. Xiaodong SUN (UMich, USA), Prof. Chul-Hwa SONG (KAERI, Korea)</i>	
Passive PWR Plant Development in China <i>Dr. Mingguang ZHENG (SNPTC, China)</i>	
IAEA Activities Supporting Information Exchange among Member States on Severe Accidents in Advanced Reactors <i>Dr. Tatjana JEVREMOVIC (IAEA, Austria)</i>	
<b>Time: 10:25 – 11:15</b>	
<b>Photo + Coffee Break</b>	
<b>Time: 11:15 – 13:00</b>	
<b>Plenary Speech 2</b>	<b>Room: Qingdao Impression Ballroom</b>
<i>Session Chairs: Prof. Koji OKAMOTO (Univ. of Tokyo, Japan), Dr. Zhi WANG (CNS, China)</i>	
Pursuit of Innovation -Towards the Future of Nuclear Energy <i>Mr. Yuta TONEGAWA (METI, Japan)</i>	
The Overview of Korean Nuclear Safety Research Program <i>Dr. Joon-Eon YANG (KAERI, Korea)</i>	
CEA R&D for nuclear reactors, from fundamentals to reinforced innovations <i>Dr. Patrick Dumaz (CEA, France)</i>	
<b>Time: 13:00 – 14:10</b>	
<b>Lunch Break</b>	
<b>Date: Monday, Oct. 15<sup>th</sup>, Afternoon</b>	
<b>Time: 14:10 – 15:50</b>	
<b>Session: Containment Thermal-Hydraulics 1</b>	<b>Room: Fushan Bay 3</b>
<i>Session Chairs: Mr. Etienne STUDER (CEA, France), Prof. Bo KUANG (SJTU, China)</i>	
No.850-Stratification break-up by a diffuse buoyant jet: a CFD benchmark exercise, Etienne STUDER (CEA), Satoshi ABE, Michele ANDREANI, J. S. BHARJ, B. GERA, L. ISHAY, S. KELM, J. KIM, Y. LU, P. PALIWAL, B. SCHRAMM, H. WANG	
No.968-The Effect of FCVS Pressure Setpoints on the Source Term and the Containment Response under an SBO Accident in a PWR with Large Dry Containment, Joan FONTANET (CIEAMT), Luis E. HERRANZ	
No.1005-Study on the Release Behavior of Fission Product under Severe Accident Induced by Small Break of DVI Tube for PWR, Haiying CHEN (Nuclear and Radiation Safety Center), Shaowei WANG, Yan CHEN, Xinli GAO, Fudong LIU, Chunming ZHANG	
No.1012-Experiments on Collapse of Density Stratification by Outer Surface Cooling of Containment Vessel: CC-PL-12 and CC-PL-24 Experiments at CIGMA, Masahiro ISHIGAKI (JAEA), Satoshi ABE, Yasuteru SIBAMOTO, Taisuke YONOMOTO	

<b>Panel Session 1: Opportunities and Challenges in Reactor Thermal-Hydraulics and Modeling</b>	<b>Room: Fushan Bay 5</b>
<p><i>Session Chair: Prof. Xiaodong SUN (UMich, USA)</i></p> <p><i>Panelists: Dr. Ki-Yong CHOI (KAERI, Korea)</i>  <i>Prof. Koji OKAMOTO (Univ. of Tokyo, Japan)</i>  <i>Dr. W. David POINTER (ORNL, USA)</i>  <i>Prof. Jörg STARFLINGER (Univ. of Stuttgart, Germany)</i>  <i>Prof. Jinbiao XIONG (SJTU, China)</i></p>	
<b>Panel Session 2: Challenges &amp; Future Programs in Safety and SA Research</b>	<b>Room: Fushan Bay 6</b>
<p><i>Session Chair: Prof. Xu CHENG (KIT, Germany)</i></p> <p><i>Panelists: Dr. Ahmed BENTAIB (IRSN, France)</i>  <i>Dr. Kwang Soon HA (KAERI, Korea)</i>  <i>Prof. Seiichi KOSHIZUKA (Univ. of Tokyo, Japan)</i>  <i>Dr. Katharina STUMMEYER (GRS, Germany)</i>  <i>Mr. Min XIAO (CNPRI/CGN, China)</i></p>	
<b>Panel Session 3: V &amp; V and More in Nuclear Thermal-Hydraulics</b>	<b>Room: Fushan Bay 7</b>
<p><i>Session Chairs: Prof. Marco LANFREDINI, Prof. Francesco D'AURIA (UNIPI, Italy)</i></p> <p><i>Panelists: Prof. Francesco D'AURIA (UNIPI, Italy)</i>  <i>Dr. Dominique BESTION (CEA, France)</i>  <i>Dr. Kyung-Doo KIM (KAERI, Korea)</i>  <i>Prof. Robert STIEGLITZ (KIT, Germany)</i>  <i>Mr. Hao ZHANG (SPICRI, China)</i></p>	
<b>Session: Advanced Reactors 1</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Dr. Hyun-Sik PARK (KAERI, Korea), Prof. Hongli CHEN (USTC, China)</i></p> <p>No.890-Estimation of Carbonaceous Dust Production Formed by CVD in HTGR, Yingchao MENG (Institute of Nuclear and New Energy Technology, Tsinghua University), Huaqiang YIN, Malin LIU, Xiaoming CHEN, Tao MA</p> <p>No.915-Qualification of the system code CATHARE for nuclear research reactors, Alberto GHIONE (CEA), François COCHEMÉ</p> <p>No.1018-On the feasibility of the application of frozen walls to a molten salt fast reactor, Gregory CARTLAND-GLOVER (STFC), Stefano ROLFO, Alex SKILLEN, David EMERSON, Charles MOULINEC, Dzianis LITSKEVICH, Bruno MERK</p> <p>No.1030-Calculations of the Effective Thermal Conductivity in Pebble Bed Type High Temperature Gas-cooled Reactors, Ziping LIU (Institute of Nuclear and New Energy Technology, Tsinghua University), Ersheng YOU, Yu JI, Jun SUN</p> <p>No.1132-High Temperature Gas-cooled Reactor Analysis and Safety Features, Jinsheng BI (Nuclear and Radiation Safety Center), Yan YI, Chun LI, Chaojun LI</p>	
<b>Session: Liquid Metal Reactor 1</b>	<b>Room: Fushan Bay 16</b>
<p><i>Session Chairs: Prof. Morita KOJI (Kyushu Univ., Japan)</i>  <i>Dr. K. VELUSAMY (Indira Gandhi Centre for Atomic Research, India)</i></p> <p>No.940-Research on Natural Convection Characteristics of Fluoride Salt in Closed Chamber, Jiancheng ZHOU (Xi'an Jiaotong University), Dalin ZHANG, Minghao LIU, Suizheng QIU</p>	

<p>No.958-Research on the Application of Two Order Discrete Scheme in Intermediate Heat Exchanger Heat Transfer Numerical Calculation Model, Jin WANG (China Institute of Atomic Energy), Donghui ZHANG, Yang YU</p> <p>No.1017-Double Wall Bayonet Tube Steam Generator Characterization by System Code, Mariano TARANTINO (ENEA), Pierdomenico LORUSSO, Alessio PESETTI, Gianluca BARONE, Alessandro del NEVO, Daniele MARTELLI, Fabio GIANNETTI</p> <p>No.1024-Study of CEFR Sodium Fire Accident Simulation Based on FDS, Zhu ZHUO (China Institute of Atomic Energy), Fengyang SHEN</p> <p>No.1129-Analysis of the Gas Entrainment by Vortex in the Upper Plenum of the ASTRID Reactor Mock-up, David GUENADOU (CEA), Philippe AUBERT, Jean-philippe DESCAMPS</p>	
<b>Time: 15:50 – 16:20</b>	
<b>Coffee Break</b>	
<b>Time: 16:20 – 18:00</b>	
<b>Session: Experimental Thermal-Hydraulics 1</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chairs: Dr. Lionel ROSSI (CEA, France), Prof. Suizheng QIU (XJTU, China)</i>	
<p>No.902-Similarity Groups for Scaling Analysis of Single-phase Natural Circulation Flow, Xinguo YU (NCEPU)</p> <p>No.1011-Investigation of density driven exchange of gases in spent fuel storage pool of pressurized water reactor, Hassan CHAHI (University of Applied Sciences Zittau/Goerlitz, Institute of Process Technology)</p> <p>No.1045-Development of time-resolved measurement technique for quantification of eutectic melting speed, Shota UEDA (The University of Tokyo), Kenta INAGAKI, Masahiro KONDO, Koji OKAMOTO</p> <p>No.1057-Effect of surface roughness on droplet hydrodynamic behavior and heat transfer performance impacting on heated silicon carbide surface, Zefeng WANG (Shanghai Jiao Tong University), Jinbiao XIONG, Yanhua Yang</p> <p>No.1162-Single Bubble Fragmentation Phenomena Near Flow Obstructions and The Impact on Interfacial Area Concentration, David NOVOG (McMaster University), Ken LEUNG</p>	
<b>Session: Containment Thermal-Hydraulics 2</b>	<b>Room: Fushan Bay 3</b>
<i>Session Chairs: Dr. Sanjeev GUPTA (Becker Technologies, Germany), Mr. Etienne STUDER (CEA, France)</i>	
<p>No.984-Influence of grating type obstacle on stratification breakup by a vertical jet, Satoshi ABE (Japan Atomic Energy Agency), Masahiro ISHIGAKI, Yasuteru SIBAMOTO, Taisuke YONOMOTO</p> <p>No.1004-Introduction to SPARC Test Facility for Assessment of Hydrogen Behavior in Severe Accident, Youngsu NA (KAERI), Jongtae KIM</p> <p>No.1053-Model assessment of condensate droplet motion on inclined containment structure surfaces, Fangnian WANG (KIT), Xu CHENG</p> <p>No.1055-Effect of Nozzle Arrangement on Self-priming Venturi Scrubber's Injection Characteristics, Guangzong ZHENG (Harbin Engineering University), Haifeng GU, Jishen LI, Yanmin ZHOU</p> <p>No.1086-Experimental study on the dispersion of a buoyant gas in an enclosure with two vents, Benjamin CARITEAU (CEA)</p>	
<b>Session: Computational Fluid Dynamics 1</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chairs: Dr. Dominique BESTION (CEA, France), Prof. Daogang LU (NCEPU, China)</i>	
<p>No.955-CFD simulation of adiabatic boiling in different riser geometries, Michel HAAG (University of Luxembourg), Stephan LEYER</p> <p>No.1051-Development of numerical simulation method to evaluate molten material behaviors in nuclear reactors, Susumu YAMASHITA (Japan Atomic Energy Agency), Hiroyuki YOSHIDA</p> <p>No.1069-CFD analysis of the impact of a spacer grid with mixing vane on the sub-channel flow and heat transfer of a rod bundle, Mohammedhosamaldeen GABRALLA (Ministry of water resources irrigation &amp; electricity), Mei HUANG</p>	

<p>No.1109-Numerical Investigation on the Effects of the Distance between Two Neighboring Mixing Vanes on the Hydraulic Performance of Spacer Grid, Jianping LONG (Xi'an Jiaotong University), Bin ZHANG, Baowen YANG, Bin HAN, Zhaobo ZHOU, Cen WEI</p> <p>No.1120-Optimization Analysis in a Spent Fuel Storage Cask Based on Heat Transfer, Youxin ZHOU (CNPRI), Yousen HU</p>	
<b>Session: Severe Accident 1</b>	<b>Room: Fushan Bay 6</b>
<p><i>Session Chairs: Prof. Jörg STARFLINGER (Univ. of Stuttgart, Germany), Dr. Hongxing YU (NPIC, China)</i></p> <p>No.983-Validation of ASTECV21 models describing degraded core reflooding based on PEARL experiments, Ignacio GOMEZ-GARCIA-TORAÑO (IRSN), Laurent LABORDE</p> <p>No.1037-Simple 1-D tool development for nozzle erosion, jet breakup length, and cake fraction validated against FARO data, Jegon KIM (KAIST), Munwon SONG, Heecheon NO</p> <p>No.1013-Progress in the Modeling of Molten Corium Concrete Interaction, Ségolène JAMET (Univ. Grenoble Alpes, CNRS, Grenoble INP, LPSC), Jeanmarie SEILER, Pablo RUBIOLLO, Bruno TOURNIAIRE</p> <p>No.1087-Coolability and Post-dryout Behavior of a Porous Debris Bed with Distributed Agglomerates, Sergey YAKUSH (Ishlinskiy Institute for Problems in Mechanics RAS), Pavel KUDINOV</p> <p>No.1137-High Temperature Creep Analysis of Bottom Head of Reactor Pressure Vessel in the Case of Core-Meltdown Accident, Tingru YIN (North China Electric Power University), Daogang LU, Xiaojia ZENG</p>	
<b>Session: Code Development 1</b>	<b>Room: Fushan Bay 7</b>
<p><i>Session Chairs: Dr. Andreas WIELENBERG (GRS, Germany), Prof. Yican WU (INEST, China)</i></p> <p>No.897-Development of Model for Aerosol Removal by Spray Droplet in Nuclear Containment, Huiyu YU (Harbin Engineering University), Haifeng GU, Zhongning SUN</p> <p>No.1014-SUBCAL-SCW: Subchannel Analysis for Supercritical Parameters, Vojtěch CAHA (FNSPE CTU in Prague), Jakub KREJČÍ, Jiří ČÍŽEK</p> <p>No.1160-EASY – Evidence of Design Basis Accidents Mitigation solely with Passive Safety Systems, Sebastian BUCHHOLZ(GRS gGmbH), Andreas WIELENBERG, Andreas SCHAFFRATH</p> <p>No.1093-Improvement of thermal-hydraulic system code for density wave instability analysis in parallel narrow channels, Qiang LIAN (Xi'an Jiaotong University), Wenxi TIAN, Ronghua CHEN, Suizheng QIU, G. H. SU</p> <p>No.1113-A subchannel code of COSINE for the steady-state thermal-hydraulic analysis, Bin LUO (SPICRI), Lin HE, Jun CHEN</p>	
<b>Session: Advanced Reactors 2</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Dr. Hyun-Sik PARK (KAERI, Korea), Prof. Hongli CHEN (USTC, China)</i></p> <p>No.851-Draining Time of the Dual Fluid Reactor, Xiang WANG (Harbin Engineering University)</p> <p>No.900-Multiphysics Simulation of Graphite Chronic Corrosion by Steam in HTGRs, Chengqi WANG (University of Michigan), Xiaodong SUN, Shanbin SHI</p> <p>No.1033-Thermal Performance and Economic Analysis of Combined Hydrogen Production Cycle using VHTR, Soyoung PARK (Kyung Hee University), Gyunyoung HEO, Eojin Jeon, Sangil LEE, Deokhoon KYE</p> <p>No.1039-Development and Test of a Cold Plug Valve with Fluoride Salt, Veronique GHETTA (LPSC/CNRS), Julien GIRAUD, Pablo RUBIOLLO, Mauricio Tano RETAMALES</p> <p>No.1079-Sensitivity Analysis on Temperature Response in Molten Salt Reactor Using Coupled Dakota and Genflow Codes, Yang ZHAO (North China Electric Power University), Zhangpeng GUO, Yuheng XU, Fenglei NIU, Zhiwang WU</p>	
<b>Session: Two-Phase Flow &amp; Heat Transfer 1</b>	<b>Room: Fushan Bay 15</b>
<p><i>Session Chairs: Prof. Yonghoon JEONG (KAIST, Korea), Prof. Wei LIU (Kyushu Univ., Japan)</i></p> <p>No.869-Study on Transition Criterion between Dispersed Bubble Flow and Intermittent flow under Rolling</p>	

<p>Condition, Tianzhou XIE (Nuclear Power Institute of China), Jianjun XU, Bingde CHEN, Wei BAO  No.927-Experimental Study on Supercritical Critical Flow, Yangle WANG (Nuclear Academy of Sichuan University), Yuan ZHOU, Junfeng WANG, Yanping HUANG  No.1058-Void fraction and heat transfer in subcooled flow boiling, Hiroki OHORI (The University of Electro-Communications), Shintaro SAKAMOTO, Koji ENOKI, Tomio OKAWA  No.1148-Predictions of Critical Heat Flux for Subcooled Flow Boiling in Annulus, Wei LIU (Kyushu University)</p>	
<p><b>Session: Liquid Metal Reactor 2</b></p>	<p><b>Room: Fushan Bay 16</b></p>
<p><i>Session Chairs: Dr. Mariano TARANTINO (ENEA, Italy), Dr. Sheng GAO (INEST, China)</i></p> <p>No.884-DNS of Turbulent Mixed Convection in Liquid Metals and Its Application to Improve RANS Turbulence Models, Wentao GUO (Paul Scherrer Institute), Afaq SHAMS, Yohei SATO, Bojan NICENO  No.941-Transient Thermal-hydraulic Analysis of Medium-sized Lead cooled Fast Reactor with Sub-channel Code, Liankai CAO (University of Science and Technology of China), Chong SHEN, Xilin ZHANG, Hongli CHEN  No.979-The Development of Thermal-Hydraulic Model of Fast Reactor System Analysis Codes, Yang YU (CIAE), Jin WANG, Wenjun HU  No.1119-Analysis on Performance of Moving Body Dynamics in a Hydraulic Driven Shutdown Subassembly for Sodium Cooled Fast Reactor, Xin WANG (Shanghai Jiao Tong University), Bo KUANG, Pengfei LIU, Yan LI</p>	

<b>Date: Tuesday, Oct. 16<sup>th</sup>, Morning</b>	
<b>Time: 8:30 – 9:15</b>	
<b>Keynote Lecture 1</b>	<b>Room: Fushan Bay 1+2</b>
<p><i>Session Chair: Prof. Hisashi NINOKATA (POLIMI, Italy)</i></p> <p>Development activities of nuclear thermal hydraulics codes in Korea  <i>Dr. Kyung-Doo KIM (KAERI, Korea)</i></p>	
<b>Keynote Lecture 2</b>	<b>Room: Fushan Bay 5</b>
<p><i>Session Chair: Dr. David NOVOG (McMaster Univ., Canada)</i></p> <p>Some Key Safety Issues Study of Sodium Fast Reactor  <i>Dr. Donghui ZHANG (CIAE, China)</i></p>	
<b>Keynote Lecture 3</b>	<b>Room: Fushan Bay 6</b>
<p><i>Session Chair: Dr. Katharina STUMMEYER (GRS, Germany)</i></p> <p>Ensuring Nuclear Safety and Promoting Rational Decision Making with Risk Insights  <i>Prof. Akira YAMAGUCHI (Univ. of Tokyo, Japan)</i></p>	
<b>Time: 9:30 – 10:50</b>	
<b>Session: Experimental Thermal-Hydraulics 2</b>	<b>Room: Fushan Bay 1+2</b>
<p><i>Session Chairs: Dr. Andreas WIELENBERG (GRS, Germany), Prof. Sichao TAN (HEU, China)</i></p> <p>No.868-Safety-Related Integral Effect Tests with the SMART-ITL Facility for the SMART Design, Hyun-Sik PARK (KAERI), Hwang BAE, Sung-Uk RYU, Jin-Hwa YANG, Byong-Guk JEON, Eun-Koo YUN, Yoon-Gon BANG, Sung-Jae YI</p> <p>No.888-The effect of Hutze upon CCFL in a Konvoi-type PWR hot-leg pipe geometry of ¼ scale, Suleiman AL ISSA (Technical University Munich (TUM)), Rafael MACIAN-JUAN</p> <p>No.947-Overview of Reflux Condensation in SBLOCA Tests of ATLAS Facility, Yeon-Sik KIM (KAERI), Hyun-Sik PARK, Seok CHO, Ki-Yong CHOI, Kyoung-Ho KANG</p> <p>No.1047-Experimental Investigation on the Heat Transfer Characteristics of a Curved Heated Surface, Shang GAO (North China Electric Power University, Beijing), Daogang LU, Han WANG, Zehao ZHANG</p>	
<b>Session: Severe Accident 2</b>	<b>Room: Fushan Bay 3</b>
<p><i>Session Chairs: Dr. Satoshi ABE (JAEA, Japan), Prof. Haochun ZHANG (HIT, China)</i></p> <p>No.909-Experimental and Simulation Study of Jet Breakup Behavior under Air Entrapment, Jingtian CHEN (Sichuan University), Yuan ZHOU, Qingyu HUANG, Yangle WANG</p> <p>No.966-Improvement of Numerical Analysis of Molten Core-Concrete Interaction with Top Water Injection by MPS Method, Junki MURATA (Waseda university), Xin LI, Akifumi YAMAJI</p> <p>No.1053-Numerical Investigation on VULCANO VE-U7 Corium Spreading Over Ceramic/Concrete Substrates with MPS Method, Ju BAIDAH (Waseda University), Guangtao DUAN, Akifumi YAMAJI</p> <p>No.1076-Modelling of the Oxidation of Mixtures of Fuel and Zirconium Based on the Integral Diffusion Approach, Corbinian NIGBUR (University of Stuttgart), Michael BUCK, Jörg STARFLINGER</p>	
<b>Session: Computational Fluid Dynamics 2</b>	<b>Room: Fushan Bay 5</b>
<p><i>Session Chairs: Dr. Dominique BESTION (CEA, France), Prof. Daogang LU (NCEPU, China)</i></p> <p>No.928-Large-Eddy-Simulation on Periodic Thermal Mixing Process at a 90 °T-Junction, Mi ZHOU (Institute of Nuclear Technology and Energy Systems, University of Stuttgart), Rudi KULENOVIC, Eckart LAURIEN</p> <p>No.953-CFD Simulation of Annular Two-phase Flow in a Double-subchannel with Functional Spacers, Haipeng</p>	

<p>LI (KTH Royal Institute of Technology), Henryk ANGLART</p> <p>No.1124-The impact of the fuel bundle deformation on the thermal-hydraulics of ASTRID-like sub-assembly, Thierry CADIOU (CEA), Francisco ACOSTA</p> <p>No.1152-The Influence of Rolling Motion on Cross Flow in Rod Bundle with Spacer Grid, Zhaobo ZHOU (Xi'an Jiaotong University), Baowen YANG, Sipeng WANG, Jianping LONG</p>	
<b>Session: Severe Accident 3</b>	<b>Room: Fushan Bay 6</b>
<p><i>Session Chairs: Prof. Jörg STARFLINGER (Univ. of Stuttgart, Germany)</i></p> <p><i>Dr. Marco PELLEGRINI (The Institute of Applied Energy, Japan)</i></p> <p>No.907-Numerical simulation for the heat transfer in two-layer corium pool in HPR1000 reactor, Luteng ZHANG (Chongqing University), G. H. SU, Zaiyong MA, Shanshan BU, Wan SUN, Liangming PAN</p> <p>No.1043-Three Weeks Analysis of the Fukushima Daiichi Unit 1 NPP by the SAMPSON Code, Hiroyuki SUZUKI (The Institute of Applied Energy), Chiaki KINO, Asao NISHIKAWA, Marco PELLEGRINI, Masao CHAKI</p> <p>No.1139-External Reactor Vessel Cooling modelling in ASTEC V2.1 code, Laurent LABORDE (IRSN), Laure CARENINI, Florian FICHOT</p> <p>TBD-The Development And Application Of The Pwr Severe Accident Simulation Model, Yanfang CHEN (China Nuclear Power Operation Tech. Co., Ltd.), Meng WANG, Wei WEI, Yinggang JING, Zhou YAN, Fude GUO</p>	
<b>Session: Code Development 2</b>	<b>Room: Fushan Bay 7</b>
<p><i>Session Chairs: Prof. Marco LANFREDINI, Prof. Yican WU (INEST, China)</i></p> <p>No.914-Improvement of Subchannel Cross Flow Simulation Based on Mixing Matrix Obtained from CFD Modelling, Bin HAN (Xi'an Jiaotong University), Baowen YANG, Yudong ZHA</p> <p>No.962-Post-Test Calculations of SBLOCA Counterpart Tests with the System Code ATHLET, Henrique AUSTREGESILO (GRS), Thorsten HOLLANDS</p> <p>No.1094-Preliminary SPACE Code Analysis for ATLAS Integral Effect Test Simulating Steam Line Break Accident with Steam Generator Tube Rupture, Haemin PARK (KAERI), Yusun PARK, Byounguhn BAE, Jongrok KIM, Jaebong LEE, Namhyun CHOI, Kyoungdo KANG, Kyungdo KIM</p> <p>No.1133-Calculation and Analysis of Two-Phase Pressure Drop Experiments with COSINE, Qionghua SUN (SPICRI), Zhongyi WANG, Yu YANG, Xiaoliang FU</p>	
<b>Session: Advanced Reactors 3</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Dr. Tatjana JEVREMOVIC (IAEA, Austria), Prof. Xiaojing LIU (SJTU, China)</i></p> <p>No.959-Complete Thermal-Hydraulic Modelling of the Pavia TRIGA Mark II Research Reactor for the Study of the Natural Circulation Regime, Carolina INTROINI (Politecnico di Milano), Stefano LORENZI, Antonio CAMMI, Davide BAROLI, Bernhard PETERS, Davide CHIESA, Massimiliano NASTASI, Ezio PREVITALI</p> <p>No.1118-RELAP5 Simulation of Passive Safety System Behaviors under SBLOCA on Generation III Pressurized Water Reactor, Yang YE (Huazhong University of Science and Technology), Yang JUN, Zengguang SUI</p> <p>No.1121-Experimental Studies on Thermal-hydraulic Characteristics of Dowtherm A Though the Pebble Bed, Limin LIU (Xi'an Jiaotong University), Dalin ZHANG, Linfeng LI, Suizheng QIU</p> <p>No.1127-Experimental Study on Supercritical Heat Transfer in a Downward Flowing Circular Tube with Freon R134a, Yongchun LI (Shenzhen University), Yuan YIN, Xi HUANG, Bo PANG, Xu CHENG</p>	
<b>Session: Two-Phase Flow &amp; Heat Transfer 2</b>	<b>Room: Fushan Bay 15</b>
<p><i>Session Chairs: Prof. Stephan LEYER (Univ. of Luxembourg, Luxembourg), Prof. Guanghui SU (XJTU, China)</i></p> <p>No.875-Two-phase Flow Instability Analyses on Helical Tube of Single Channel and Parallel Channel, Cheng CHENG (China General Nuclear Power Corporation), Yu LI, Qianhua SU, Donghua LU, Xiaohang WU, Ge ZHANG</p>	



No.1002-Nucleate Boiling Heat Transfer in Hydrophobic and Nano-porous Structured Surfaces Coated on a Vertical Tube, Taeseok KIM (Hanyang University), Yunsik CHO, Uiju JEONG, Jaehyung PARK, Sungjoong KIM, Jaemin LEE, Wonjoon CHOI	
No.1042-A Study on Splashing During Liquid Jet Impingement onto a Horizontal Plate, Yusuke KUWATA (The University of Electro-Communications), Yi ZHAN, Koji ENOKI, Tomio OKAWA, Mitsuhiro AOYAGI, Takashi TAKATA	
No.1104-Study of bubble formation in a Venturi-type bubble generator applied, Jingjing LI (Shanghai Jiao Tong University), Kangbei CAI, Yuchen SONG, Junlian YIN, Dezhong WANG, Wei LIU, Hua LI	
<b>Session: Liquid Metal Reactor 3</b>	<b>Room: Fushan Bay 16</b>
<i>Session Chairs: Dr. Mariano TARANTINO (ENEA, Italy), Dr. Sheng GAO (INEST, China)</i>	
No.961-Experimental Study and Preliminary Analyses on Flow-regime Characteristics in Pool Sloshing Behavior with Solid Particles, Songbai CHENG (Sino-French Institute of Nuclear Engineering & Technology, Sun Yat-Sen University), Shuo LI, Kejia LI, Ting ZHANG, Nan ZHANG, Xu'an LI, Feng LIANG	
No.974-Numerical modeling of radiation heat transfer under sodium spray combustion in sodium-cooled fast reactors, Mitsuhiro AOYAGI (Japan Atomic Energy Agency), Takashi TAKATA, Shuji OHNO, Masayoshi UNO	
No.1110-Study on thermal-hydraulics characteristics of the natural circulation lead-cooled fast reactor, Zhao CHEN (China Nuclear Power Technology Research Institute Co., Ltd.), Kangli SHI, Yong ZHANG, Xiu'an SHI, Jiming LIN	
<b>Time: 10:50 – 11:20</b>	
<b>Coffee Break</b>	
<b>Time: 11:20 – 13:00</b>	
<b>Session: Experimental Thermal-Hydraulics 3</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chairs: Dr. Seok CHO (KAERI, Korea), Prof. Sichao TAN (HEU, China)</i>	
No.937-Influence of the Direct Contact Condensation on Steam Injector Operation, Nozomu AKIYAMA (Hokkaido University), Shuichiro MIWA, Hiroto SAKASHITA	
No.956-Unsteady Pressure and Velocity Measurements in 5x5 Rods Bundle Using Grids With and Without Mixing Vanes, Francis MORENO (CEA), Stéphane BANTICHE, Fabienne BAZIN, Thibaud LOHEZ, Didier PICARD, Serge TESTANIERE, Lionel ROSSI	
No.1080-Qualification Test of Korean Localized RCP's Seal under Extended SBO Condition of APR1400, Seok CHO (KAERI), Seok KIM, Byoung-Uhn BAE, Yun-Jae CHO, Yeon-Sik KIM, Young-Jung YUN, Woo-Jin Jeon	
No.1105-Experimental Research on Hydraulic Characteristics of 37-pin Fuel Assembly in Fast Reactor, Jiarui WANG (North China Electric Power University), Daogang LU, Haiqi QIN, Jiakuan TANG, Dawen ZHONG	
<b>Session: Operation 1</b>	<b>Room: Fushan Bay 3</b>
<i>Session Chairs: Dr. David NOVOG (McMaster Univ., Canada)</i> <i>Prof. Shun-Chi WU (National Tsinghua Univ. (Hsinchu), Taiwan, China)</i>	
No.879-Implementation of EQ Regulation Requirements for NPS License Renewal, Dersun LEE (Fidertech Corp), Minghsien LU, Ying-Yu YU, Lancec WANG	
No.880-The Methodology of Implementing the Maintenance Rule for NPP Licensing Renewal, Wu-Pin LO (Fidertech Corp), De-Cheng CHEN, Ming-Hsien LU, Ying-Yu YU, Yong-Tsung CHIU, Lance C. WANG	
No.965-Loss of Coolant Accident Tracking Model Development Using Dynamic Bayesian Network, Cho Hwan OH (Korea Advanced Institute of Science and Technology), Jeong Ik LEE	
No.1114-A Nuclear Emergency Support System Based on Big Database, Fangqing YANG (China Nuclear Power Technology Research Institute), Weifeng XU, Peng CHEN	

<b>Session: Computational Fluid Dynamics 3</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chairs: Prof. Seiichi KOSHIZUKA (The Univ. of Tokyo, Japan), Prof. Wenxi TIAN (XJTU, China)</i>	
No.950-Numerical Simulation of Steam Injection Experiment into a Closed Vessel, Yoichi UTANOHARA (Institute of Nuclear Safety System, Inc.), Michio MURASE, Akio TOMIYAMA	
No.954-Particle-based Simulation of Heat Transfer Behavior in EAGLE ID1 In-pile Test, Koji MORITA (Kyushu University), Ryusei OGAWA, Hiromi TOKIOKA, Xiaoxing LIU, Wei LIU, Kenji KAMIYAMA	
No.1061-The Comparison of DO model and S2S model for the Radiation Heat Transfer Calculation in the Cover Gas Space of the Fast Reactor Main Vessel, Zihan XIA (North China Electric Power University), Daogang LU, Yuhao ZHANG, Xiaolu ZHANG, Bin OUYANG	
No.1063-Comparison of Different Turbulence Models in Numerical Simulation on Flow Characteristics of Fuel Assembly Pin in A Fast Reactor, Yu WANG (North China Electric Power University), Daogang LU, Haiqi QIN, Jiarui WANG, Dawen ZHONG	
No.1067-Simulation of Bubbly Flows in a Horizontal Pipe using the Three-Dimensional Two-Phase Flow Analysis Code, CUPID, Donghun LEE (Pusan National University), Jaejun JEONG, Hanyoung YOON, Seungjun LEE	
<b>Session: Severe Accident 4</b>	<b>Room: Fushan Bay 6</b>
<i>Session Chairs: Dr. Satoshi ABE (JAEA, Japan), Prof. Haochun ZHANG (HIT, China)</i>	
No.853-Numerical Simulation of Eutectic Reaction during Severe Accident Based on MPS Method, Yingzi ZHU (Shanghai Jiao Tong University), Jinbiao XIONG	
No.946-Thermal-hydraulic Analysis of Filtered Containment Venting System for Long-term Operation under Station Blackout, Shichang DONG (Huazhong University of Science and Technology), Jun YANG, Chuan HE	
No.978-ETSON-MITHYGENE benchmark on simulations of upward flame propagation experiment in the ENACCEF2 experimental facility, Ahmed BENTAIB (IRSN), N. Chaumeix, R. Grosseuvres, A. Bleyer, L. Gastaldo, L. Maas, S. Jallais, E. Vyazmina, S. Kudriakov, E. Studer, A. Dehbi, Y. Halouane, B. Schram, V. Taivassalo, M. Frankova, O. Kotsuba, T. Holler, I. Kljenak, Y. Maruyama, T. Nuri, M. Sato, J. Murgatroyd, M. Povilaitis	
No.1020-A Nodal Sensitivity Study of MELCOR Simulation of In-Vessel Severe Accident Progression in a Nordic BWR, Yangli CHEN (Royal Institute of Technology (KTH)), Huimin ZHANG, Walter VILLANUEVA, Weimin MA, Sevostian BECHTA	
No.1085-Three Weeks Analysis of the Fukushima Daiichi Unit 3 NPP by the SAMPSON Code, Marco PELLEGRINI (The Institute of Applied Energy), Masao CHAKI, Masanori NAITOH	
<b>Session: Code Development 3</b>	<b>Room: Fushan Bay 7</b>
<i>Session Chairs: Prof. Robert STIEGLITZ (KIT, Germany), Prof. Baowen YANG (XJTU, China)</i>	
No.995-Investigation on Thermal-hydraulic Performance of Rod Bundle with Mixing Effect, Xiang LI (Chongqing University), Deqi CHEN, Lian HU	
No.1015-Analysis of a hydrogen recombiner test characteristic with severe lack of oxygen from the OECD/NEA THAI-2 project performed with recent version of the MELCOR code, Miroslav KOTOUC (UJV Rez)	
No.1034-Modeling of eutectic reaction between molten stainless steel and B4C for severer accident simulations, Xiaoxing LIU (Kyushu University), Koji MORITA, Hidemasa YAMANO	
No.1044-Validation and Application of a coupled CFD/LP Code System for Containment Simulations, Walter KLEIN-HESSLING (Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH), Siegfried ARNDT, Aivars ZEMITIS, Oleg ILIEV, Konrad STEINER, Martin FREITAG, Meryll COLOMBET	
No.1077-Thermal hydraulic transient load analysis for the safety depressurization system discharge line using the RELAP/SCDAPSIM code, Shuying JIANG (Innovative System Software), Rui Zhou, Zheng FU, Marina PEREZ-FERRAGUT, Judyk HOHORST	

<b>Session: Advanced Reactors 4</b>	<b>Room: Fushan Bay 10</b>
<i>Session Chairs: Dr. Tatjana JEVREMOVIC (IAEA, Austria), Dr. Feng SHEN (SPICRI, China)</i>	
No.843-Discussion on Thermal-hydraulic Analysis for Nuclear Heating Reactor HAPPY200, Canhui SUN (SPICRI), Xiaotao LIAO, Zhaocan MENG, Yaodong CHEN	
No.859-Analysis of LBLOCA at APR1400 using TRACE code, Yeongjae LEE (Incheon National University), Taewan KIM, Aeju CHUNG	
No.936-A design study of near-isothermal centrifugal compressor in a supercritical CO2 cycle for SMR application, Yongju JEONG (KAIST), Jinyoung HEO, Seongkuk CHO, Jeongik LEE	
No.997-Thermal-hydraulic Calculation and Analysis of a Li4SiO4 Pebble Bed Assembly Irradiation in CARR, Beibei LUO (China Institute of Atomic Energy), Yanyan GE, Li DING, Yulin WANG	
No.1115-Thermal-Hydraulics Characteristics of Fuel Element in Space Reactor Cooled by Alkali-Metal Heat Pipe, Haochun ZHANG (Harbin Institute of Technology), Wen JIAO, Xiu ZHANG, Xiuting LIU	
<b>Session: Two-Phase Flow &amp; Heat Transfer 3</b>	<b>Room: Fushan Bay 15</b>
<i>Session Chairs: Prof. Stephan LEYER (Univ. of Luxembourg, Luxembourg), Prof. Guanghui SU (XJTU, China)</i>	
No.970-Liquid-phase Turbulence Measurements in Air-water Two-phase Flows Using Particle Image Velocimetry, Shanbin SHI (University of Michigan), Yalan QIAN, Dewei WANG, Yang LIU, Xiaodong SUN	
No.1003-Assessment of CHF Models in RELAP5 against Experimental Data at Natural Circulation Conditions, Chuan HE (Huazhong University of Science and Technology), Jun YANG, Shichang DONG	
No.1031-Development of Non-Intrusive Two-phase Flow Regime Identification Method using Machine Learning Techniques, Shuhei TORISAKI (Hokkaido University), Yuta SAITO, Shuichiro MIWA	
No.1092-Flow Structure of Liquid Films in Annular Flow, Abhishek SAXENA (Laboratory of Nuclear Energy Systems, ETH Zurich), Horst-Michael PRASSER	
No.1107-The Influence of Flow Regime Criterion on Core Thermal Calculation, Ting WU (Science and Technology Center for Advanced Fuel Research & Development, School of Nuclear Science and Technology, Xi'an Jiaotong University), Baowen YANG, Hu MAO	
<b>Session: Liquid Metal Reactor 4</b>	<b>Room: Fushan Bay 16</b>
<i>Session Chairs: Mr. Dmitry FOMICHEV (NIKIET, Russia), Prof. Songbai CHENG (SYSU, China)</i>	
No.975-Development of PIRT for FASYS Validation, Xue FENG (China Institute of Atomic Energy), Yang YU, Jin WANG	
No.1052-Experimental analysis of SGTR event in CIRCE facility for MYRRHA reactor and post-test by SIMMER-IV code, Alessio PESETTI (University of Pisa), Mariano TARANTINO	
No.1125-Numerical investigation of turbulent convection of sodium through a channel, Xiang CHAI (Shanghai Jiao Tong University), Xiaojing LIU, Jinbiao XIONG, Tengfei Zhang, Xu CHENG	
No.1130-MILIPOSO, Mock-up of the Diagrid and the Coupling Pipes in Support of the ASTRID SFR Program, David GUENADOU (CEA), Philippe AUBERT, Jean-philippe DESCAMPS	
<b>Time: 13:00 – 14:10</b>	
<b>Lunch Break</b>	
<b>Date: Tuesday, Oct. 16<sup>th</sup>, Afternoon</b>	
<b>Time: 14:10 – 15:50</b>	
<b>Session: Experimental Thermal-Hydraulics 4</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chairs: Dr. Lionel ROSSI (CEA, France), Prof. Suizheng QIU (XJTU, China)</i>	
No.964-Measurement of Water-steam Flow Behavior and Pressure Distribution in Venturi Scrubber, Shinichiro UESAWA (Japan Atomic Energy Agency), Naoki Horiguchi, Takayuki SUZUKI, Mitsuhiko SHIBATA,	

<p>Hiroyuki YOSHIDA</p> <p>No.988-Experimental Study of Station Blackout Accident on Advanced Core-cooling Mechanism Experiment Test Facility, Yusheng LIU (Nuclear and Radiation Safety Center), Chao XU, Jieru AN</p> <p>No.992-Scaling Analysis of Heat Sinks inside Passive Containment, Jian HU (Nuclear and Radiation Safety Center, MEP), Lijing WEN</p> <p>No.1062-Experimental Study of ADS-4 Entrainment in CAP1400, Bin JIANG (SPIC), Peng ZHANG, Lian CHEN, Lei ZHANG, Xiao HU, Huajian CHANG</p> <p>No.1141-Natural Circulation Tests of ATLAS After Primary System Modification, Jongrok KIM (Korea Atomic Energy Research Institute), Jaebong LEE, Yusun PARK, Byounguhn BAE, Namhyun CHOI, Kyoungho KANG</p>	
<b>Session: Operation 2</b>	<b>Room: Fushan Bay 3</b>
<p><i>Session Chairs: Mr. Pascal VEBER (Ringhals AB, Sweden)</i></p> <p><i>Prof. Shun-Chi WU (National Tsinghua Univ. (Hsinchu), Taiwan, China)</i></p> <p>No.841-Nuclear Safety Culture Weaknesses in Chinese NPPs based on Operating Events, Lixin ZHENG (Nuclear and Radiation Safety Center), Feng JIAO, Hao ZHANG</p> <p>No.873-Level 1 PRA for External Vessel Storage Tank of Japan Sodium-Cooled Fast Reactor in Whole Core Refueling, Hidemasa YAMANO (Japan Atomic Energy Agency), Kenichi KURISAKA, Hiroyuki NISHINO, Yasushi OKANO</p> <p>No.1032-Quantum Evolutionary Algorithm Based Sensor Selection for NPP Initiating Event Identification, Ting-Han LIN (Institute of Nuclear Engineering and Science, National Tsing Hua University, Hsinchu), Shun-Chi WU, Hsiu-Cheng PENG, Hwai-Pwu CHOU</p> <p>No.1122-Application of Reliability Index Allocation Method on Reactor Trip Protection System, Chaojun LI (NSC), Yan YI, Zhichao HUANG, Yan CHEN</p>	
<b>Panel Session 4: Nuclear Safety Culture</b>	<b>Room: Fushan Bay 5</b>
<p><i>Session Chairs: Prof. Koji OKAMOTO (Univ. of Tokyo, Japan)</i></p> <p><i>Panelists: Dr. Bin CHEN (NPIC, China)</i>  <i>Mr. Takuya FUKANO (JANSI, Japan)</i>  <i>Prof. Hyun Sun PARK (POSTECH, Korea)</i></p>	
<b>Session: Severe Accident 5</b>	<b>Room: Fushan Bay 6</b>
<p><i>Session Chairs: Prof. Pavel KUDINOV (KTH, Sweden), Mr. Min XIAO (CNPRI/CGN, China)</i></p> <p>No.930-Development of a lower flammability limit model for hydrogen risk analysis under severe accident conditions, Joongoo JEON (Hanyang University), Namkyung KIM, Wonjun CHOI, Sungjoong KIM</p> <p>No.980-Numerical Investigation of the Stop-and-Go Mechanism in FARO L26S Spreading Experiment by MPS Method, Kouhei UCHIDA (Waseda University), Guangtao DUAN, Akifumi YAMAJI</p> <p>No.1025-Three Weeks Analysis of the Fukushima Daiichi Unit 2 NPP by the SAMPSON Code, Chiaki KINO (The Institute of Applied Energy), Masao CHAKI, Masanori NAITOH</p> <p>No.1088-Thermal-hydraulic Study of Air-cooled Passive Decay Heat Removal System for APR+ under Extended Station Blackout, Doyun KIM (KAIST), Heecheon NO, Hojoon YOON, Sanggyu LIM</p> <p>No.1089-Research on Effect of Gas Generation on Concrete Ablation in Numerical Simulation of MCCI using MPS Method, Keigo FUJIKAWA (The University of Tokyo), Koji OKAMOTO, Masahiro KONDO</p>	
<b>Panel Session 5: Multi-physics and Multi-scale Code Coupling</b>	<b>Room: Fushan Bay 7</b>
<p><i>Session Chair: Prof. Antonio CAMMI (POLIMI, Italy)</i></p> <p><i>Panelists: Prof. Carolina INTROINI (POLIMI, Italy)</i>  <i>Prof. Chengqi WANG (UMich, USA)</i></p>	

<i>Prof. Peng YU (KTH, Sweden)</i> <i>Dr. Liang ZHANG (SPICRI, China)</i>	
<b>Session: Two-Phase Flow &amp; Heat Transfer 4</b>	<b>Room: Fushan Bay 15</b>
<i>Session Chairs: Dr. Yeon-Sik KIM (KAERI, Korea), Dr. Mitsuhiro AOYAGI (JAEA, Japan)</i>	
No.856-Numerical Study of Nucleate Boiling Based on OpenFOAM, Liang ZHANG (SPICRI), Yanhua YANG, Jianfu ZHAO	
No.1046-Separation performance of a cyclone separator with high gas volume ratio, Tingting ZHANG (Shanghai Jiao Tong University), Yalan QIAN, Yafei CHEN, Junlian YIN, Dezhong WANG	
No.1066-Modification of the MARS Subcooled Boiling Model for Low-Pressure, Low-Pe Flow Conditions, Taewook HA (Pusan National University), Byongjo YUN, Jaejun JEONG	
No.1068-Numerical Study on Effect of Nucleation Site Density on Behavior of Bubble Coalescence by Using CMFD Simulation Code TPFIT, Ayako ONO (Japan Atomic Energy Agency), Takayuki SUZUKI, Hiroyuki YOSHIDA	
No.1099-Experimental Investigation on Characteristics of Direct Contact Condensation of Steam Jet under Depressurization Condition, Yonglong YUAN (North China Electric Power University), Daogang LU, Yuhao ZHANG, Bin OUYANG	
<b>Panel Session 6: Challenges in Thermal Hydraulics &amp; Safety of Liquid Metal Cooled Fast Reactors</b>	<b>Room: Fushan Bay 16</b>
<i>Session Chairs: Dr. Mariano TARANTINO (ENEA, Italy), Dr. Ferry ROELOFS (NRG, Netherlands)</i>	
<i>Panelist: Dr. Dmitry FOMICHEV (NIKIET, Russia)</i> <i>Dr. Sheng GAO (INEST, China)</i> <i>Dr. K. VELUSAMY (Indira Gandhi Centre for Atomic Research, India)</i>	
<b>Time: 15:50 – 16:20</b>	
<b>Coffee Break</b>	
<b>Time: 16:20 – 18:00</b>	
<b>Session: Experimental Thermal-Hydraulics 5</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chairs: Dr. Dongjin EUH (KAERI, Korea), Dr. Donghua LU (CNPRI, China)</i>	
No.844-Analysis on Complex Vortex Flow Field Measured by Ultrasonic Doppler Velocimetry, Shaoqiu HUANG (Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences; University of Science and Technology of China), Wangli HUANG, Zhiqiang ZHU	
No.848-Turbulent flow investigations in a 5×5 rod bundle with mixing vane spacer grids by experiments, Wenhai QU (Shanghai Jiao Tong University), Jinbiao XIONG, Xu CHENG, Shilong CHEN	
No.969-Experimental Study of Boric Acid Solubility in Steam in Case of WWER Accident, Andrei MOROZOV (IPPE), Anna PITZYK, Azamat SAHIPGAREEV, Aleksander SHLEPKIN	
No.1095-Thermal-hydraulic study on hybrid-safety injection tank for small break loss of coolant accident and station black out, Hojoon YOON (Khalifa University of Science and Technology), Faisalsalem ALDHAHERI, Chongun PYON, Hyungook KANG	
<b>Session: Operation 3</b>	<b>Room: Fushan Bay 3</b>
<i>Session Chairs: Mr. Walter KLEIN-HESSLING (GRS, Germany), Mr. Xin LIU (SNERDI, China)</i>	
No.939-Thermal Analysis of QM400 Dry Storage Module without Thermal Baffles, Fujun GAN (Shanghai Nuclear Engineering Research & Design Institute), Qiaolin ZUO, Zhen XU, Libing ZHU	
No.1000-Optimized Radial Basis Function Neural Networks for Nuclear Plant Decision Support System, Abiodun AYODEJI (Harbin Engineering University), Yongkuo LIU	
No.1142-Research on Intelligent Operation Guidance Technology of Nuclear Power Plant, Tianshu WANG	

(Navy University of Engineering), Ren YU, Xiaofan LIU, Yushen CHEN	
No.1143-Research on Fault Diagnosis Method Based on HHT and CBR for Electric Pump and Valve in Nuclear Power Plant, Tianshu WANG (Navy University of Engineering), Xiaofan LIU, Ren YU, Shi WANG, Tianshu WANG	
No.TBD-Utilization of (U-Th) O <sub>2</sub> as an alternative nuclear fuel for Small Modular Reactors, Reza AKBARI (Amirkabir University of Technology Tehran), Joser MAIORINO, Francesco D'AURIA, Dariush REZAEI	
<b>Session: Computational Fluid Dynamics 4</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chairs: Prof. Seiichi KOSHIZUKA (Univ. of Tokyo, Japan), Prof. Wenxi TIAN (XJTU, China)</i>	
No.885-Numerical Analysis of Water Film Flow Characteristics on the Large Flat Plate, Xiaojie YANG (Shanghai Jiao Tong University), Po HU, Weibo WANG	
No.908-Debris behavior and FCI effects in the core catcher of an ESRF reactor under accident conditions, Liancheng GUO (Karlsruhe Institute of Technology (KIT)), Michael FLAD, Andrei RINEISKI	
No.1022-Numerical Investigation on the Flow and Heat Transfer Characteristics in 7×7 Rod Bundles with Guide Tubes, Jin LEI (Chongqing University), Deqi CHEN, Haidong LIU, Lian HU	
No.1064-CFD Analysis of Wall Shear Stress and Recirculation in Centrifugal Liquid Metal Pumps, Moritz SCHENK (KIT-IFRT), Xu CHENG	
No.1126-Effect of Choosing Turbulence Model on Numerical Simulation of Labyrinth Throttle, Yi SONG (North China Electric Power University), Daogang LU, Haiqi QIN, Yu WANG, Jiarui WANG	
<b>Session: Severe Accident 6</b>	<b>Room: Fushan Bay 6</b>
<i>Session Chairs: Prof. Pavel KUDINOV (KTH, Sweden), Mr. Min XIAO (CNPRI/CGN, China)</i>	
No.852-Hydrogen Deflagration in Stratified Flat Layers in Single or Interconnected Large Rectangular Volumes, Zhe (Rita) LIANG (Canadian Nuclear Laboratories), Lee GARDNER, Tony CLOUTHIER, Reilly MACCOY	
No.938-Verification of heat transfer performance analysis code for debris bed in sodium cooled fast reactor, Yonggang CAO (China Institute of Atomic Energy), Xisi ZHANG, Lixia REN, Wenjun HU, Hong YU	
No.981-Experimental and Computational Analysis under H4 Condition for PWR Nuclear Power Plants, Xiang GAO (Suzhou Nuclear Power Research Institute), Junyong LI, Yiwei MAO, Liang YUAN	
No.1040-Development of safety evaluation methodology of Design Extension Condition for the Station BlackOut of OPR 1000, Bokyung KIM (KAIST), Heecheon NO	
No.1050-Heat Pipe Heat Removal System Applied in Fukushima NPP Decommissioning, Yao ZHANG (the University of Tokyo), Shunichi SUZUKI, Koji OKAMOTO	
<b>Session: Code Development 4</b>	<b>Room: Fushan Bay 7</b>
<i>Session Chairs: Prof. Robert STIEGLITZ (KIT, Germany), Prof. Baowen YANG (XJTU, China)</i>	
No.881-Floating Absorber for Safety at Transient Analysis Code (FASTAC): Verification And Validation Study, Seongmin LEE (Korea Advanced Institute of Science and Technology), Yonghoon JEONG	
No.1100-Experimental and Numerical Study on Two-Phase Closed Thermosiphons related to Passive Spent Fuel Pool Cooling, Anne KRUESSENBERG (GRS gGmbH), Fabian WEYERMANN, Andreas SCHAFFRATH, Claudia GRASS, Rudi KULENOVIC, Joerg STARFLINGER	
No.1131-Assessment of CATHENA 4 Subchannel Capability against RD-14M Tests, Zhong CHENG (Canadian Nuclear Laboratories Ltd), Tao XU, Aleksandar VASIC, Yanfei RAO, Nusret AYDEMIR	
No.1144-Analysis of Departure from Nucleate Boiling in Bundle using System Codes, Yun Seok LEE (Incheon National University), Yeongjae LEE, Taewan KIM	
No.1159-Validation and data assimilation for FLECHT-SEASET reflood test with SPACE and COSINE, Jong Hyuk LEE (KAERI), Jayseok HEO, Seung Wook LEE, Kyung Doo KIM, Sung Won BAE, Kwi Seok HA, Sang Ki MOON, Lifang LIU, Dongqi LIU, Xiaoliang FU	

<b>Session: Advanced Reactors 5</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Dr. W. David POINTER (ORNL, USA)</i></p> <p><i>Prof. Eugenijus USPURAS (Lithuanian Energy Institute, Lithuania)</i></p> <p>No.836-Integral SMART Plant Model Developed for the System Thermal Hydraulic Code TRACE for Transient Analysis, Victor Hugo SANCHEZ-ESPINOZA (Karlsruhe Institute of Technology (KIT)), Victor Mateo MARTIN, Yousef ALZABEN, Gonzalo JIMENEZ</p> <p>No.840-Dynamic Stability Analysis of Supercritical Natural Circulation Loop: Frequency Domain method, Chengque CAO (Shanghai Jiao Tong University), Bo KUANG, Pengfei LIU</p> <p>No.944-Consequences of Loss of Water Accidents in the Spent Fuel Pools of Ignalina NPP in Different Stages After Reactor Shutdown for Decommissioning, Algirdas KALIATKA (Lithuanian Energy Institute), Virginijus VILEINISKIS, Eugenijus USPURAS</p> <p>No.1074-Demonstration analysis of Passive coolant feed-bleed system for HAPPY200 against LOCA, Mian XING (SPICRI), Tian QIN, Zhaocan MENG, Yaodong CHEN, Shuming ZHANG, Xiaotao LIAO, Canhui SUN, Peidong SUN, Huijing JIANG, Xiao HU</p>	
<b>Special Session 1: Attributes and Elements of BEPU</b>	<b>Room: Fushan Bay 15</b>
<p><i>Session Chairs: Prof. Marco LANFREDINI, Prof. Francesco D'AURIA (UNIPI, Italy)</i></p> <p>No.967-Analyses of LSTF Experiment and PWR Plant for 5% Cold-Leg Break Loss of Coolant Accident, Tadashi WATANABE (University of Fukui), Masahiro ISHIGAKI, Jinya KATSUYAMA</p> <p>No.1166-Insights into BEPU, Marco LANFREDINI (UNIPI), F. D'AURIA</p> <p>No.TBD-Multi-scale and Multi-physics Methodology For LWR Safety Analysis Plus Uncertainty, Patricio HIDALGA (UPV), R. MIRÓ, A. SEKHRI</p> <p>No.1164-A Graded Application of Best Estimate Plus Uncertainty Methodology for non-LOCA Transient Analysis, Jinzhao ZHANG (Tractebel (ENGIE)), Andriy KOVTONYUK, Christophe SCHNEIDESCH</p> <p>No.1167-Evaluation of A Double-Ended Guillotine Break Transient in A Three-Loop PWR-900 Like with Trace Code Coupled with Dakota Uncertainty Analysis, Andrea BERSANO (Politecnico di Torino), Fulvio MASCARI</p>	
<b>Session: Liquid Metal Reactor 5</b>	<b>Room: Fushan Bay 16</b>
<p><i>Session Chairs: Mr. Dmitry FOMICHEV (NIKIET, Russia), Prof. Songbai CHENG (SYSU, China)</i></p> <p>No.1071-Design and R&amp;D Progress of China Lead-based Reactor, Yican WU (Institute of Nuclear Energy Safety Technology, Chinese Academy of Sciences)</p> <p>No.1106-Numerical Modeling and Sensitive Analysis of Assembly Deformation in SFR with Limited-free-bow Core Restraint Design, Zehua MA (Xi'an Jiaotong University), Yingwei WU, Guanghui SU, Suizheng QIU</p> <p>No.1151-Numerical Simulation of Thermal-Hydraulics Characteristics of A Sodium-Cooled Fast Reactor Steam Generator, Hongyang WANG (Chongqing university), Shenhui RUAN, Zhiqiang CHEN, Xueyou DING, Qinglong WEN, Lina ZHU, Bin HOU</p> <p>No.1158-Thermal Stress Investigations of the Skirt-supported ADS Reactor Vessels, Yue WANG (North China Electric Power University, Beijing), Daogang LU</p>	
<b>Time: 18:30 – 21:00</b>	
<b>Banquet + Honors &amp; Awards Ceremony</b>	<b>Room: Qingdao Impression Ballroom</b>

<b>Date: Wednesday, Oct. 17<sup>th</sup>, Morning</b>	
<b>Time: 8:30 – 9:15</b>	
<b>Keynote Lecture 4</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chair: Prof. Hee-Cheon NO (KAIST, Korea)</i>  Challenges for Multiscale Thermal Hydraulic Simulation in Support of Digital Nuclear Power Plants <i>Dr. W. David POINTER (ORNL, USA)</i>	
<b>Keynote Lecture 5</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chair: Prof. Jong-Hyun KIM (KAIST, Korea)</i>  The Concept of Multi-Scale Validation <i>Dr. Dominique BESTION (CEA, France)</i>	
<b>Keynote Lecture 6</b>	<b>Room: Fushan Bay 6</b>
<i>Session Chair: Dr. Yanping HUANG (NPIC, China)</i>  CGN fleet management mode and practice of nuclear operation <i>Dr. Wenbiao FENG (CGN, China)</i>	
<b>Time: 9:20 – 10:05</b>	
<b>Keynote Lecture 7</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chair: Prof. Seiichi KOSHIZUKA (Univ. of Tokyo, Japan)</i>  Assessment and Licensing for COSINE Software Package <i>Prof. Yanhua YANG (SPICRI, China)</i>	
<b>Keynote Lecture 8</b>	<b>Room: Fushan Bay 6</b>
<i>Session Chair: Prof. Francesco D'AURIA (UNIPI, Italy)</i>  In-containment hydrogen management and source term issues: Progress and remaining challenges <i>Dr. Sanjeev GUPTA (Becker Technologies, Germany)</i>	
<b>Time: 10:05 – 10:30</b>	
<b>Coffee Break</b>	
<b>Time: 10:30 – 12:30</b>	
<b>Session: Experimental Thermal-Hydraulics 6</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chairs: Dr. Shinichiro UESAWA (JAEA, Japan), Prof. Qinglong WEN (Chongqing Univ., China)</i>  No.887-Effects of water quality on the critical heat flux of the hemispherical downward facing surface, Junming LIANG (China Nuclear Power Research Institute), Dongshan WEI, Xiangyu YUN, Lei ZHANG, Yue ZHANG, Huiyong ZHANG No.971-Suppression of Nucleate Boiling in Upward Two-Phase Annular Flow: A Close-Up Study Using Advanced Diagnostics, Guanyu SU (MIT), Bren PHILLIPS, Jacopo BUONGIORNO, Francescopaolo D'ALEO, Horst-michael PRASSER, Eissa AL-SAFRAN No.1084-Integral Test on Performance of Passive Safety System of CAP1400 in SBO Scenario, Chao XU (Nuclear and Radiation Safety Center), Xirui LIU, Yusheng LIU, Pan ZHANG, Jieru AN No.1108-Experimental Study of Post-Dryout Heat Transfer and Rewetting in an R-134a Cooled Vertical Tube at Comparable Water-Cooled Reactor Pressure Conditions, Ludwig KOECKERT (KIT-IFRT), Florian FEUERSTEIN, Dali YU, Denis KLINGEL, Xu CHENG No.1123-Void fraction measurements for external two-phase flow across tube bundle, Zhaohui LIU (Xi'an Jiaotong	



University), Miao GUI, Teng WANG, Yiwei TAO, Qincheng BI, Zanjian ZHANG No.1155-Transient Verification of Subchannel Code of COSINE, Lin HE (SPICRI), Bin LUO, Jun CHEN, Hao ZHANG, Huie SHA, Bo DONG, Dongqi LIU, Lifang LIU	
<b>Session: Operation 4</b>	<b>Room: Fushan Bay 3</b>
<i>Session Chairs: Mr. Walter KLEIN-HESSLING (GRS, Germany), Mr. Joakim HOLMSTRÖM (Ringhals AB, Sweden)</i>	
No.932-Validation and verification of Ringhals 4 power plant Trace model for simulation of power grid failure and transition to house load operation, Pascal VEBER (Ringhals AB), Joakim HOLMSTRÖM, Anders SURÉN, Michael SÖDERSTRÖM	
No.1041-Assessment on Wear of In-core Flux Thimble in a Typical Pressurized Water Reactor, Mingqian ZHANG (China Nuclear Power Design Company, Ltd.), Yueming FU, Meiliang HUANG, Qianqian CHU	
No.1102-Comprehensive Analysis of Main Feedwater Isolation Improvement, Yue PI (China nuclear power engineering CO.LTD), Jiaming ZHAO	
No.1154-Analysis of the Efficacy of Nuclear Fuel Reprocessing, Samuel KINYANJUI (Tsinghua University)	
<b>Session: Computational Fluid Dynamics 5</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chairs: Prof. Tadashi WATANABE (Univ. of Fukui, Japan), Prof. Jinbiao XIONG (SJTU, China)</i>	
No.842-Modeling fuel temperature in dry storage: The key role of CFD Analyses, Luis E. HERRANZ (CIEMAT), Jaime PENALVA, Francisco FERIA	
No.846-Numerical Modelling of Moving Solid Transport for Flooding Accident in Nuclear Reactor Building, Zidi WANG (The University of Tokyo), Kazuya SHIBATA, Seiichi KOSHIZUKA	
No.935-Numerical Analysis and Investigation on Heat Transfer Enhancement in Nuclear Fuel Rod Bundles Using Nanofluids, Idris Khalil IDRIS ALI (North China Electric Power University), Mei HUANG, Ahmed A. GHANI	
No.1060-Numerical Simulation on Flow Characteristics of Thread-Seal Structure of Fast Reactor Fuel Assembly, Haiqi QIN (North China Electric Power University), Daogang LU, Yu WANG, Jiarui WANG, Yi SONG, Dawen ZHONG	
No.1081-Numerical Simulation on the Temperature Fluctuation of Liquid Sodium below Central Column in SFR, Chao LIU (North China Electric Power University), Daogang LU, Qiong CAO, Shu ZHENG, Yunlong DING, M. Ahmad Masood GILL	
No.1090-Investigation on the Influencing Factors of Flow Instability in Steam Generator U-tubes with CFD Methodology, Zengguang SUI (Huazhong University of Science and Technology), Jun YANG, Ye YANG	
<b>Session: Severe Accident 7</b>	<b>Room: Fushan Bay 6</b>
<i>Session Chairs: Dr. Kwang Soon HA (KAERI, Korea), Dr. Po HU (SJTU, China)</i>	
No.904-An experimental study on the detonability of hydrogen-air mixtures in small size pipe, Bo LIU (Xi'an Jiaotong University), Yongzheng CHEN, Yapei ZHANG, G. H. SU, S. Z. QIU	
No.945-A Novel Approach for Crust Behaviors in Corium Spreading Based on Multiphase MPS Method, Guangtao DUAN (Waseda University, The University of Tokyo), Akifumi YAMAJI, Seiichi KOSHIZUKA	
No.972-Impact of in-core debris bed modelling in ASTEC on the TMI-2 accident computation, Patrick DRAI, (IRSN), Olivia COINDREAU, Vincent TOPIN, Laurent LABORDE	
No.994-Pressure drop for two-phase flow through porous bed of mm scale particles at high void fraction, Mooneon LEE (POSTECH), Hyun Sun PARK, Jin Ho PARK, Kiyofumi MORIYAMA, Moo Hwan KIM	
No.999-Coupled Thermo-Mechanical Creep Analysis for A Nordic BWR Lower Head Using Non-Homogeneous Debris Bed Configuration from MELCOR, Peng YU (Royal Institute of Technology (KTH)), Walter VILLANUEVA, Weimin MA, Sevostian BECHTA, Sergey GALUSHIN	
No.1135-Post-simulation of CORA-13 experiment using RELAP-SCDAPSIM Mod 3.4, Rongjin ZHANG (SPICRI), Zhanquan LIU, Yan CHANG, Feng SHEN, Yanhua YANG	

<b>Session: Code Development 5</b>	<b>Room: Fushan Bay 7</b>
<p><i>Session Chairs: Dr. Jinzhao ZHANG (Tractebel, Belgium), Dr. Xiaoxing LIU (Kyushu Univ., Japan)</i></p> <p>No.876-Performance Optimization Of Restart Module in cosFLOW, Xiaoning KONG (State Power Investment Central Research Institute), Jian LI, Jun CHEN, Yi YAO</p> <p>No.993-Numerical Simulation of Natural Circulation Experiment under Asymmetric Cooldown using LSTF, Masahiro ISHIGAKI (University of Fukui and Japan Atomic Energy Agency), Tadashi WATANABE</p> <p>No.1021-Prospective For Nuclear Thermal Hydraulic Created By Ongoing And New Networks, Nusret AKSAN (GRNSPG-University Of Pisa), Dominique BESTION, Francesco D'AURIA, Yassin HASSAN, Marco LANFREDINI, Sergii LUTSANYCH, Fabio MORETTI, Rodolfo VAGHETTO</p> <p>No.1075-Apply the adaptive mesh refinement method to thermal hydraulic program, Xiumei ZHAO (Shanghai Jiaotong University), Meng LIN</p> <p>No.1082-The Nuclear Simulation Chain of GRS and its Improvements for New ALWR and SMR Typical Phenomena, Andreas SCHAFFRATH (GRS gGmbH), Andreas WIELENBERG, Martin SONNENKALB, Robert KILGER</p> <p>No.1140-Different Turbulent Mixing Coefficient Determination Methods in Rod Bundle Mixing Analysis, Aiguo LIU (Xi'an Jiaotong University), Baowen YANG, Xianlin ZHU</p>	
<b>Session: Other Nuclear Safety 1</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Dr. Jianjun XIAO (KIT, Germany), Mr. Seon Oh YU (KINS, Korea)</i></p> <p>No.830-Spent Fuel Pool Risk Analysis for a CPR1000 Unit, Weidong LIU (Suzhou Nuclear Power Research Institute Co., Ltd.), Zefeng ZHANG, Pengyi PENG</p> <p>No.845-Unity-based primitive solid modeling for calculation of radiation map, Mengkun LI (Harbin Engineering University), Yongkuo LIU, Liqun YANG</p> <p>No.931-Preliminary Results of a New Experimental Investigation on Local Fuel-Coolant Interactions in a Simulated Molten Fuel Pool, Ting ZHANG (Sino-French Institute of Nuclear Engineering &amp; Technology, Sun Yat-Sen University), Ting ZHU, Songbai CHENG, Chuiyi MENG, Xu'an LI</p> <p>No.933-Development of Computerized Severe Accident Management Guidelines Based on Severe Accident Simulator, Gang JIANG (State Power Investment Corporation Central Research Institute), Gang CHEN, Yixue CHEN</p> <p>No.963-Gas Redistribution Caused by Interacting Heat Sources in the Presence of a Vertical Condenser, Sidharth PARANJAPE (Paul Scherrer Institute), Ralf KAPULLA, Guillaume MIGNOT, Domenico PALADINO</p> <p>No.1059-Code-to-code Comparison between ATHLET-CD and MELCOR for SBLOCA Severe Accident Scenario in Generic German PWR, Matthias JOBST (Helmholtz-Zentrum Dresden-Rossendorf), Frank KRETZSCHMAR, Victorhugo SÁNCHEZ-ESPINOZA, Polina WILHELM</p>	
<b>Special Session 2: EU-China Project ALISA on Severe Accident Infrastructures</b>	<b>Room: Fushan Bay 15</b>
<p><i>Session Chairs: Dr. Christophe JOURNEAU (CEA, France), Dr. Peng CHEN (CNPRI, China)</i></p> <p>No.911-ALISA Project: Access to Large Infrastructures for Severe Accidents in Europe and in China, A. MIASSOEDOV (Karlsruhe Institute of Technology (KIT)), X. GAUS-LIU, Yehong LIAO, Peng CHEN</p> <p>No.918-First Results of the QUENCH-ALISA Bundle Test, Juri STUCKERT (Karlsruhe Institute of Technology (KIT)), Martin STEINBRUECK, Jarmo KALILAINEN, Tertaliisa LIND, Yapei ZHANG</p> <p>No.929-Experimental Investigation of IVR Natural Circulation Characteristics and CHF: 2DIVR-ALISA Test, Lei ZHANG (CNPRI), Junying XU, Donshan WEI, Huiyong ZHANG, Xiaoyang GAUS-LIU, Alexei MIASSOEDOV, Thomas CRON, Beatrix FLUHRER</p> <p>No.989-Experiment on Light Gas Layer Erosion in Small-Scale MCTHBF Containment Experimental Facility, Houjun GONG (Nuclear Power Institute of China), Ying WANG, Yuanfeng ZAN, Pengzhou LI, Ivo KLJENAK, Etienne STUDER, Ahmed BENTAIB, Namane MECHITOUA</p> <p>No.1083-Experimental Study on the Melt Pool Heat Transfer in LWR Lower Head under Different Upper Boundary Conditions – the Outcomes of LIVE-ALISA Experiment, Xiaoyang GAUS-LIU (Karlsruhe Institute of</p>	

Technology), Thomas CRON, Beatrix FLUHRER, Alexei MIASSOEDOV, Lei ZHANG, Junying XU, Huiyong ZHANG	
<b>Session: Other Thermal Hydraulics</b>	<b>Room: Fushan Bay 16</b>
<i>Session Chairs: Dr. Yeon-Sik KIM (KAERI, Korea), Dr. Mitsuhiro AOYAGI (JAEA, Japan)</i>	
No.903-Study On Breakdown Characteristics Under Horizontal Shear of Water Film Falling Down Corrugated Plate Dryer, Bo WANG (Harbin Engineering University), Ruifeng TIAN	
No.934-Heat Transfer Predictions for Supercritical Water Flowing in Different Geometries, Aurelian Florin BADEA (Institute of Fusion and Reactor Technology (IFRT), Karlsruhe Institute of Technology (KIT)), Meng ZHAO, Xu CHENG	
No.952-Assessment of criteria for Onset of Flow Instability in vertical narrow rectangular channels with downward flow, Alberto GHIONE (CEA), Brigitte NOEL, Paolo VINAI, Christophe DEMAZIÈRE	
No.996-Simulation of PWR Core Response Characteristics under Step Reactivity Disturbance and Temperature Change based on the SIMULINK, Ran ZHANG (East China University of Technology), Huaqiang YIN, Lihua HE	
No.1016-The SIMULINK Calculation of PWR Reactor Core Dynamic Characteristics and Interface Design, Ran ZHANG (East China University of Technology), Huaqiang YIN, Lihua He	
No.1038-Instability of Falling Liquid Film along Vertical String in Counter-current Air Flow, Jangsik MOON (KAIST), Yacine ADDAD, Yonghoon JEONG	
<b>Time: 12:30 – 13:40</b>	
<b>Lunch Break</b>	
<b>Date: Wednesday, Oct. 17<sup>th</sup>, Afternoon</b>	
<b>Time: 13:40 – 15:40</b>	
<b>Session: Experimental Thermal-Hydraulics 7</b>	<b>Room: Fushan Bay 1+2</b>
<i>Session Chairs: Dr. Ayako ONO (JAEA, Japan), Prof. Qinglong WEN (Chongqing Univ. China)</i>	
No.976-Experimental Methods for Flow Identification of the PGSFR Primary Heat Transfer System, Dongjin EUH (KAERI)	
No.1073-Full scale experimental study of entrainment influence on boron behavior during reactor long term cooling period, Xiao HU (State Power Investment Corporation Research Institute), Peng ZHANG, Lei ZHANG, Mian XING, Huajian CHANG	
No.1103-Investigation on quenching of a high-temperature spherical particle in sea water, Qiang GUO (Royal Institute of Technology (KTH)), Louis MANICKAM, Weimin MA, Sevostian BECHTA	
No.1128-Experimental Investigation On the Steam Jet Condensation Through a Double-hole nozzle, Bin OUYANG (North China Electric Power University), Daogang LU, Haoyu ZHANG, Yonglong YUAN, Xiaolu ZHANG, Zihan XIA	
No.1161-Design of a Fast-Neutron Computed Tomography System for Measurement of Subchannel Void in CANDU Thermalhydraulic Experiments, David NOVOG (McMaster University), Garik PATTERSON	
<b>Session: Multi-scale &amp; Multi-physics Approaches</b>	<b>Room: Fushan Bay 3</b>
<i>Session Chairs: Dr. Andreas WIELENBERG (GRS, Germany), Prof. Bo KUANG (SJTU, China)</i>	
No.916-Multi-scale coupling of TRACE and SUBCHANFLOW based on EIC for the analysis of 3D phenomena inside the PWR RPV, Kanglong ZHANG (Karlsruhe Institute of Technology (KIT)), Victorhugosanchez ESPINOZA	
No.960-Evaluation of thermal-hydraulics/thermomechanics coupling strategies for the modeling of the behavior of Sodium-cooled Fast Reactors fuel assemblies under irradiation, Francisco ACOSTA (CEA), Thierry CADIOU, Victor BLANC, Pablo RUBIOLO	
No.985-Instabilities of burnup calculations in a SERPENT/OPENFOAM coupling, Christian CASTAGNA (Politecnico di Milano), Carolina INTROINI, Eric CERVI, Stefano LORENZI, Antonio CAMMI, Davide	

CHIESA, Massimiliano NASTASI, Monica SISTI, Ezio PREVITALI	
No.1117-Preliminary Analysis of the MONJU Turbine Trip Test using a Coupled CFD/System Code Model, Justin W. THOMAS (Agnone National Laboratory), Stefano PASSERINI, Richard B. VILIM, David G. HOLLER, Hiroyuki OHSHIMA, Masaaki TANAKA	
<b>Session: Computational Fluid Dynamics 6</b>	<b>Room: Fushan Bay 5</b>
<i>Session Chairs: Prof. Tadashi WATANABE (Univ. of Fukui, Japan), Prof. Jinbiao XIONG (SJTU, China)</i>	
No.1096-3-D Flow Field Analysis of 5×5 Grid Spacer and Fuel Bundle Assembly, Rui LI (SYSU), Binghuo YAN	
No.TBD-Numerical Simulation of the Full Scale Loop for External Reactor Vessel Cooling on ULPU-V Facility to Study the Effect of Gap Size, Rehman Hafiz Haseeb Ur (North China Electric Power University), Dawen ZHONG, Xiang ZHANG, Jun SUN, DaoGang LU	
No.TBD-Application of CFD simulation to validate the primary coolant loop of the LFR BREST-OD-300, Dmitry FOMICHEV (JSC N.A. Institute of Power Engineering (JSC NIKIET)), Alexey TUTUKIN, Konstantin SERGEENKO	
<b>Session: Severe Accident 8</b>	<b>Room: Fushan Bay 6</b>
<i>Session Chairs: Dr. Kwang Soon HA (KAERI, Korea), Dr. Po HU (SJTU, China)</i>	
No.862-The first results of COPRA-ALISA experiment, Yapei ZHANG (Xi'an Jiaotong University), Simin LUO, Yukun ZHOU, Zhichun XU, Dalin ZHANG, Suizheng QIU	
No.863-Numerical simulations on melt pool behaviors under rolling conditions, Simin LUO (Xi'an Jiaotong University), Yapei ZHANG, Dalin ZHANG, Wenxi TIAN, Guanghui SU	
No.906-Experimental Investigation of Flow Resistances in Packed Beds with Horizontal and Vertical Stratifications, Liangxing LI (Xi'an Jiaotong University), Liubo KONG, Kailin WANG, Shuangbao ZHANG	
No.943-New Approach for Severe Accident Simulations in Spent Fuel Pools Using the Code System AC2, Lovasz LIVIUSZ (GRS), Sebastian WEBER, Marcok KOCH.	
No.957-Comparison of Code Modellings and Behaviors for MCCI in Calandria Vault of PHWR, Seon Oh YU (Korea Institute of Nuclear Safety), Kyu Byung LEE, Sung Joong KIM	
No.1116-Uncertainty and Sensitivity Analyses in Support of Model Development and Validation of the Containment Module COCOSYS of the AC <sup>2</sup> Code – Application for Molten Corium/Concrete Interaction (MCCI), Claus SPENGLER (Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH), Ivan BAKALOV, Nils REINKE, Martin SONNENKALB	
<b>Session: Code Development 6</b>	<b>Room: Fushan Bay 7</b>
<i>Session Chairs: Dr. Jinzhao ZHANG (Tractebel, Belgium), Dr. Masahiro ISHIGAKI (JAEA, Japan)</i>	
No.877-Numerical analysis of hydrogen-air deflagration propagation in the presence of concentration gradients, Sergey KOUDRIAKOV (CEA), Etienne STUDER, Mike KUZNETSOV	
No.1023-Numerical Simulation of Thermal Stripping Phenomena for Fundamental Validation and Uncertainty Quantification - Application of Least Square Version GCI and Area Validation Method to Impinging Jet in a T-Junction Piping System, Masaaki TANAKA (Japan Atomic Energy Agency)	
No.1065-Numerical Simulation on Self-leveling Behavior of Mixed Particle Beds Using Multi-fluid Model Coupled with DEM, Le Hoang Sang PHAN (Kyushu University), Yohei OHARA, Ry KAWATA, Xiaoxing LIU, Wei LIU, Koji MORITA, Liancheng GUO, Kenji KAMIYAMA, Hirotaka TAGAMI	
No.1078-Development and Research of Severe Accident Simulator Based on Core Model Coupling Transition Method, Ying CAO (Shanghai Jiao Tong University), Xiumei ZHAO, Meng LIN, Gang CHENG	
No.1097-Numerical study of turbulence natural convection in an air filled square cavity, with GASFLOW-MPI, Yabing LI (Karlsruhe Institute of Technology), Jianjun XIAO, Thomas JORDAN	
No.1149-Verification and Validation of cosSUBC Wall Heat Transfer Model, Zhihuang LIN (State Power Investment Central Research Institute), Bo DONG, Lin HE, Hao ZHANG, Jian LI	

<b>Session: Other Nuclear Safety 2</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Prof. Hyun Sun PARK (POSTECH, Korea), Dr. Aurelian Florin BADEA (KIT, Germany)</i></p> <p>No.839-Processing Radiation Environment Solid Model Based on Three-Dimensional Stylized Model Reconstruction, Liqun YANG (Harbin Engineering University), Yongkuo LIU, Minjun PENG, Mengkun LI</p> <p>No.864-Preliminary Research on MSG Methodology for EPR Thermal-hydraulic Design, Hong XIAO (NSC), Jiye ZHENG, Jie BAO, Yiming WANG, Hao FU</p> <p>No.925-Ringhals 3 ELAP During 72 h with Independent Core Cooling System, Analysis and Verification Using the TRACE Code, Joakim HOLMSTROEM (Ringhals AB), Pascal VEBER</p> <p>No.982-The Supercritical CO<sub>2</sub> Heat Removal System - Status and Outlook, Joerg STARFLINGER (University of Stuttgart, IKE), Marcel STRAETZ, Alexander HACKS, Dieter BRILLERT, Ales VOJACEK, Petr HAJEK</p> <p>No.1035-The Enlightenment of Fukushima Nuclear Accident to China's Nuclear Safety Culture Construction, Shaowei WANG (Nuclear and Radiation Safety Center, MEP, China), Hongtu SUN, Xiaoyang LI, Zhifei LUO, Yang LI</p> <p>No.1049-Design and Study of Secondary Passive Residual Heat Removal System for Floating Nuclear Power Plant, Youming HUANGFU (Harbin Engineering University), Jianjun WANG, Yong ZHOU, Hongjing GUO</p>	
<b>Special Session 3: Euratom Project SAFEST on Corium Behavior in Severe Accidents</b>	<b>Room: Fushan Bay 15</b>
<p><i>Session Chairs: Dr. Alexei MIASSOEDOV (KIT, Germany), Prof. Koji OKAMOTO (Univ. of Tokyo, Japan),</i></p> <p>No.910-First Experiment on Interaction of Molten Uranium Oxide with Solid Boron Carbide, Chritsophe JOURNEAU (CEA), Monika KISELOVA, Igor POZNIAK, Petr BEZDICKA, Petr SVORA, Sevostian BECHTA</p> <p>No.912-SAFEST Project on Corium Behavior in Severe Accidents, Alexei MIASSOEDOV (KIT), B. FLUHRER, C. JOURNEAU, S. BECHTA, Z. HOZER, D. MANARA, M. KISELOVA, T. KEIM, G. LANGROCK, F. BELLONI, D. BOTTOMLEY, M. KURATA, K. OKAMOTO</p> <p>No.913-DEFOR Test on the Influence of BWR Control Rod Guide Tubes on Melt Jet Fragmentation, Alexei MIASSOEDOV (KIT), G. ALBRECHT, B. FLUHRER, A. KARBOJIAN, A. KONOVALENKO, P. KUDINOV, S. BECHTA</p> <p>No.921-First results of the SICOPS MCCI tests in the frame of the SAFEST project, Gert LANGROCK (Framatome GmbH), Manfred FISCHER, Torsten KEIM, Patrick ISAKSSON, Markus HUPP</p> <p>No.1157-Ex-vessel Fuel Coolant Interaction Experiment in the DISCO Facility in the SAFEST Project, Giancarlo ALBRECHT (Karlsruhe Institute of Technology), Leonhard MEYER, Renaud MEIGNEN</p>	
<b>Session: Two-Phase Flow &amp; Heat Transfer 5</b>	<b>Room: Fushan Bay 16</b>
<p><i>Session Chairs: Dr. Dongjin EUH (KAERI, Korea), Mr. Xiaoliang FU (SPICRI, China)</i></p> <p>No.889-An Evaluation of One-group Interfacial Area Transport Equation with its Constitutive Bubble Coalescence and Breakup Models in Bubbly Two-phase Flows, Xiuzhong SHEN (Kyoto University), Takashi HIBIKI</p> <p>No.898-Investigation of Thermal Coupling in Condensation Process at COSMEA Facility with ATHLET Code, Yu ZHANG (University of Luxembourg), Stephan LEYER, Uwe HAMPEL</p> <p>No.991-A Mesh Sensors System for Two-Phase Flow Measurement between Fuel Assemblies, Hao QIN (North China Electric Power University), Shiliang ZHOU, Muhammad Naveed ANJUM</p> <p>No.1027-Effect of MWCNT nanostructured surface on condensation heat transfer, Yun Sik CHO (Hanyang University), Taeseok KIM, Uiju JEONG, Jae Hyung PARK, Sung Joong KIM, Jaemin LEE, Wonjoon CHOI</p> <p>No.1048-Fluid-to-Fluid Scaling Criteria Validation for Modeling Condensation in Horizontal Tubes, Khalid KHASAWNEH (KAIST), Yong Hoon JEONG</p> <p>No.1054-Transient simulation of direct-contact condensation, Daotong MING (XJTU), Wenxi TIAN, Suizheng QIU, Guanghui SU</p>	
<b>Time: 15:40 – 16:10</b>	
<b>Coffee Break</b>	

<b>Time: 16:10 – 17:30</b>	
<b>Session: Advanced Reactors 6</b>	<b>Room: Fushan Bay 5</b>
<p><i>Session Chairs: Dr. W. David POINTER (ORNL, USA)</i></p> <p><i>Prof. Eugenijus USPURAS (Lithuanian Energy Institute, Lithuania)</i></p> <p>No.1029-The effect of the thermal conductivity and specific heat on the thermal hydraulic performance of the nuclear reactor, Hang XIA (Xi'an Jiaotong University), Hongfa YANG, Yingwei WU, Suizheng QIU, Guanghui SU, Wenxi TIAN</p> <p>No.1150-Investigation of New Aspects Related to Transition Performances between Natural and Forced Circulation in A Small Reactor, Shenhui RUAN (Chongqing University), Hongyang WANG, Zhiqiang CHEN, Xueyou DING, Qinglong WEN, Jian SONG, Wei WANG, Renxi JIN</p> <p>No.TBD-Comparative Study of Spatial Distribution between Fast and Thermal Equivalent Neutron Fluxes Using a Threshold Detector Array, Jiseok KIM (Korea Atomic Energy Research Institute)</p> <p>No.TBD-Mixing Performance and Pressure Drop Evaluation for Flow-Driven Rotational Mixing Vane in the Subchannel, Haneol PARK (UNIST), Inchoel BANG</p>	
<b>Session: Code Development 7</b>	<b>Room: Fushan Bay 7</b>
<p><i>Session Chairs: Dr. Masahiro ISHIGAKI (JAEA, Japan), Dr. Jianjun XIAO (KIT, Germany)</i></p> <p>No.882-Development and Verification of trip valve in cosFlow, Huie SHA (State Power Investment Central Research Institute), Jun CHEN, Hao ZHANG, Lin HE</p> <p>No.1007-Improved PWR LOCA Simulations Through Refined Core 3D Simulations – An Advanced 3D Modelling and the Associated METERO Validation Program, Dominique BESTION (CEA), Philippe FILLION, Raphael PREA, Gilles BERNARD-MICHEL</p> <p>No.1098-Calculation and Analysis of the Saturated Nucleate Boiling Heat Transfer Experiments with cosSyst, Yi YAO (SPICRI), Zhongyi WANG, Yu YANG, Xiaoliang FU</p> <p>No.1134-Counterpart Calculation and Analysis of Edwards Pipe &amp; Marviken Test 22 Experiments with COSINE and SPACE, Yu YANG (State Power Investment Corporation Research Institute), Jaeseok HEO, Yi YAO, Sung Won BAE, Xiaoliang FU, Kyung Doo KIM, Yanhua YANG</p>	
<b>Session: Other Nuclear Safety 3</b>	<b>Room: Fushan Bay 10</b>
<p><i>Session Chairs: Prof. Hyun Sun PARK (POSTECH, Korea), Dr. Bin CHEN (NPIC, China)</i></p> <p>No.1010-Comparative Calculation of SB LOCA for High-Power Passive Reactor by Relap5 And Trace Codes, Shaoxing ZHUANG (Nuclear and Radiation Safety Centre), Jieru AN, Jianping JING, Xuedong QIAO, Fudong LIU</p> <p>No.1145-The hydrogen-steam-air mixture ignition test in a closed tank, Po HU (Shanghai Jiao Tong University), Shuwei ZHAI</p> <p>No.1156-Research of Loss of ac Power to the Plant Auxiliaries Accident for Hualong One Based on TRACE Code, Bin JIA (Nuclear and Radiation Safety Center), Xuedong QIAO, Xinli GAO, Jianping JING</p> <p>No.1169-Preliminary Study of Integrity Safety for a CGN-SMR, Jiang YANG (China Nuclear Power Technology Research Institute), Jisheng ZHANG, Xuyang CUI, Xianghui LU, Huo LIANG, Pengyi PENG</p>	
<b>Special Session 3: Euratom Project SAFEST on Corium Behavior in Severe Accidents (cont.)</b>	<b>Room: Fushan Bay 15</b>
<p><i>Session Chairs: Dr. Alexei MIASSOEDOV (KIT, Germany), Prof. Koji OKAMOTO (Univ. of Tokyo, Japan)</i></p> <p>No.917-MOCKA-SSM experiment on basaltic concrete with and without rebars, Jerzy Jan FOIT (Karlsruhe Institute of Technology (KIT)), Thomas CRON, Beatrix FLUHRER, Alexei MIASSOEDOV, Patrick ISAKSSON, Sevostian BECHTA</p> <p>No.919-Molten Core Concrete Interaction Test in VULCANO Facility Preventing Initial Interfacial Crusts, Viviane BOUYER (CEA), Arthur DENOIX, Christophe JOURNEAU, Diego MOLINA, Pascal PILUSO, Jean-Fran çois HAQUET, Jerzy FOIT, Beatrix FLUHRER, Alexei MIASSOEDOV</p>	

No.1163-Experimental Study on the Melt Pool Transient Behavior in LWR Lower Head under Changing Boundary Cooling Conditions – the Outcomes of LIVE-SAFEST Experiment, Xiaoyang GAUS-LIU (Karlsruhe Institute of Technology), Thomas CRON, Beatrix FLUHRER, Alexei MIASSOEDOV, Florian FICHOT	
<b>Session: Two-Phase Flow &amp; Heat Transfer 6</b>	<b>Room: Fushan Bay 16</b>
<i>Session Chairs: Dr. Donghua LU (CNPRI, China), Mr. Xiaoliang FU (SPICRI, China)</i>	
No.924-Preliminary Research on the Bubble Escape Diameter on a Down-ward Face Pool Boiling, Kai WANG (The University of Tokyo), Nejdet ERKAN, Koji OKAMOTO	
No.1008-Asymptotic Numerical Method applied to stability and bifurcation analysis of a boiling flow at low pressure in a pipe, Edouard BISSEN (Aix-Marseille University), Marc MEDALE, Nicolas ALPY	
No.1026-Experimental study on boiling cycle characteristic for downward facing pool boiling, Daogui TIAN (SPIC), Xiang ZHANG, Bin JIANG, Lian CHEN, Huajian CHANG	
<b>Time: 17:30 – 18:00</b>	<b>Room: Fushan Bay 1+2+3</b>
<b>Closing Ceremony</b>	