WEDNESDAY, AUGUST 4

01-01 Operating Experience Session 01

Session begins at 1:15PM

Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**

Research on Setting Alarm Thresholds of Gaseous Effluent Radiation Monitoring From Nuclear Power Plants in China
Technical Paper Publication: ICONE28-62558
Wei He - Nuclear and Radiation Safety Center, MEP
Jing Jiang - Nuclear and Radiation Safety Center, MEP
Chen Xu - Nuclear and Radiation Safety Center, MEP
Qiang Lei - Nuclear and Radiation Safety Center, MEP
Chunyan Xu - Nuclear and Radiation Safety Center, MEP
Xinhua Liu - Nuclear and Radiation Safety Center, MEP
Yu Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Feng Xie - Institute of Nuclear and New Energy Technology, Tsinghua University

Development of Digital Twins of PWR Steam Generators: Description of Two Maintenance-Oriented Use Cases
Technical Paper Publication: ICONE28-63246
Enrico Deri - EDF
Christophe Varé - EDF
Matthieu Wintergerst - EDF

Key Element Analysis and Suggestion for Strengthen the Quality Management of Nuclear Power Plant Fasteners
Technical Paper Publication: ICONE28-64142
Yan Lu - Nuclear and Radiation Safety Center, MEE
Ligong Ling - Nuclear and Radiation Safety Center, MEE
Yu Xu - Nuclear and Radiation Safety Center, MEE
Chen Gao - Nuclear and Radiation Safety Center, MEE

APROS-Based Loviisa NPP Full Scope Training Simulator and Engineering Model
Technical Paper Publication: ICONE28-64294
Arttu Meriläinen - Fortum Power and Heat Oy
Olli Viljakainen - Fortum Power and Heat Oy
Karri Honkoila - Fortum Power and Heat Oy
Ari Lahtela - Fortum Power and Heat Oy

02-01: Structural and Seismic Analyses

Session begins at 1:15PM

Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Antony Hurst - Engineering Analysis Services Limited**
Chair: **Brian Fant - Bechtel**
Chair: **Leon Cizelj - Jozef Stefan Institute**
Chair: **Miltos Alamaniotis - The University of Texas at San Antonio**
Chair: **Mauro Cappelli - ENEA**
Chair: **Damien Feron - CEA**
Chair: **Takashi Wakai - Japan Atomic Energy Agency**
Chair: **Yoshinori Katayama - Toshiba Energy Systems & Solutions Corporation**
Chair: **Akemi Nishida - Japan Atomic Energy Agency**

Chair: **Zhijian Zhang - Harbin Engineering University**
Chair: **Goran Simeunovic - CVUT V Praze**
Chair: **Yawei MAO - China Nuclear Industry 23 Construction Co. Ltd.**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**

Outline of Guideline for Seismic Response Analysis Method Using 3D Finite Element Model of Reactor Building
Technical Paper Publication: ICONE28-61786
Byunghyun Choi - Japan Atomic Energy Agency
Akemi Nishida - Japan Atomic Energy Agency
Tadahiko Shiomi - Japan Atomic Energy Agency
Manabu Kawata - Japan Atomic Energy Agency
Yinsheng Li - Japan Atomic Energy Agency

Estimation of Vibration Characteristics of Nuclear Facilities Based on Seismic Observation Records
Technical Paper Publication: ICONE28-64337
Kouki Yamakawa - Nuclear Regulation Authority
Masaaki Saruta - Nuclear Regulation Authority
Hiroshi Moritani - Nuclear Regulation Authority
Hiroaki Yamazaki - Nuclear Regulation Authority
Akemi Nishida - Japan Atomic Energy Agency
Manabu Kawata - Japan Atomic Energy Agency
Kazuhiko Iigaki - Japan Atomic Energy Agency

Assessment of Seismic Fragility Using a Three-Dimensional Structural Model Reactor Building
Technical Paper Publication: ICONE28-64300
Akemi Nishida - Japan Atomic Energy Agency
Choi Byunghyun - Japan Atomic Energy Agency
Tadahiko Shiomi - Japan Atomic Energy Agency
Manabu Kawata - Japan Atomic Energy Agency
Yinsheng Li - Japan Atomic Energy Agency

Research and Application of Different Seismic Analysis Methods in Nuclear Power Equipment
Technical Paper Publication: ICONE28-64605
Xuan Huang - Nuclear Power Institute of China
Furui Xiong - Nuclear Power Institute of China
Shuai Liu - Nuclear Power Institute of China
Huanhuan Qi - Nuclear Power Institute of China
Qian Huang - Nuclear Power Institute of China
Ke Zhang - Nuclear Power Institute of China

Hybrid Dynamic Response Test Focusing on the Support Structure of Piping Systems
Technical Paper Publication: ICONE28-64586
Yukihiko Okuda - Japan Atomic Energy Agency
Akemi Nishida - Japan Atomic Energy Agency
Michiya Sakai - Central Research Institute of Electric Power Industry
Yuzo Shiogama - Central Research Institute of Electric Power Industry
Yinsheng Li - Japan Atomic Energy Agency

Research on Earthquake Acceleration Alarm of Nuclear Power Plant
Technical Paper Publication: ICONE28-64554
Liang Li - Beijing University of Technology; Nuclear and Radiation Safety Centre
Rong Pan - Nuclear and Radiation Safety Centre
Guopeng Ren - Nuclear and Radiation Safety Centre
Xiuyun Zhu - Nuclear and Radiation Safety Centre

07-01: Thermal-Hydraulics Experimental Studies - I

Session begins at 1:15PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Void Fraction Measurement and Prediction of Two-Phase Boiling Flows in a Tubular Test Section
Technical Paper Publication: ICONE28-60406
Qingqing Liu - University of Michigan
Julio Diaz - University of Michigan
Victor Petrov - University of Michigan
Adam Burak - University of Michigan
Annalisa Manera - University of Michigan
Joseph Kelly - U.S. Nuclear Regulatory Commission
Xiaodong Sun - University of Michigan

Experimental Study on Boiling Heat Transfer Characteristics in an Inclined Tube Bundle
Technical Paper Publication: ICONE28-64355
Zongkun Li - Harbin Engineering University
Jie Cheng - Harbin Engineering University
Xuwei Zhou - Harbin Engineering University
Xiaobo Zeng - Harbin Engineering University
Xiaxin Cao - Harbin Engineering University
Guangming Fan - Harbin Engineering University

Experimental Study of Flow Characteristics in Round Jet Flow Using Particle Image Velocimetry (PIV)
Technical Paper Publication: ICONE28-64534
Lei Wu - Harbin Engineering University
Jianjun Wang - Harbin Engineering University

Baseline WALT DNB Test Results With Cr-Coated Cladding to Support_x000B_Accident Tolerant Fuel Development
Technical Paper Publication: ICONE28-66591
Guoqiang Wang - Westinghouse Electric Company LLC
William A. Byers - Westinghouse Electric Company LLC
Zeses Karoutas - Westinghouse Electric Company LLC

Study of Recent Sodium Pool Fire Model Improvements for Melcor Code
Technical Paper Publication: ICONE28-64509
Mitsuhiro Aoyagi - Japan Atomic Energy Agency
David Louie - Sandia National Laboratories
Akihiro Uchibori - Japan Atomic Energy Agency
Takashi Takata - Japan Atomic Energy Agency
David Luxat - Sandia National Laboratories

08-01: CFD Analyses of Experimental Tests

Session begins at 1:15PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Water Hammer Simulation in Two-Phase Flow Regimes Using Open Source Code OpenFOAM
Technical Paper Publication: ICONE28-61351
Paul Fuchs - Ruhr-Universität Bochum
Marco K. Koch - Ruhr-Universität Bochum

Influence of Inlet Turbulent Flow Generated by Periodic Computations on the Pressure Drop and Axial Velocity Distribution Predictions
Technical Paper Publication: ICONE28-64275

Chufa Qiu - CEA
Bruno Raverdy - CEA
Andre Bergeron - CEA
Vincent Faucher - CEA

A New Concept for Irradiation Experiments in Fast-Reactor Environment: CFD Simulation of the LBE Loop in Hyst
Technical Paper Publication: ICONE28-63180
Ran Kong - Purdue University
Seungjin Kim - Purdue University
Robert Wahlen - Niowave, Inc.
Terry Grimm - Niowave. Inc.

Flow Induced Vibration Analysis and Remediation Using a Cartesian Grid Flow Solver
Technical Paper Publication: ICONE28-64842
Alexander Boschitsch - Continuum Dynamics, Inc.
Pavel Danilov - Continuum Dynamics, Inc.
Andrew Kaufman - Continuum Dynamics, Inc.
Alan Bilanin - Continuum Dynamics, Inc.

Exploring Probability of Gas Entrainment With CFD Analysis of the Flow in the MICAS Experimental Facility
Technical Paper Publication: ICONE28-65276
Harshit Bhatia - Commissariat à l'Énergie Atomique et aux Énergies Alternatives
Ulrich Bieder - CEA Saclay
David Guenadou - CEA Cadarache
Yannick Gorsse - CEA Saclay

10-01: Advanced Methods of Manufacturing (AMM) for Nuclear Reactors and Components

Session begins at 1:15PM

Chair: **David Gandi - EPRI**
Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**
Chair: **Y.A. Hassan - Professor, Texas A&M**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Yoshinori Katayama - Toshiba Energy Systems & Solutions Corporation**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Weibao Tang - Shanghai Electric Nuclear Power Equipment Co., Ltd.**
Chair: **Xiaojiang Wang - China Nuclear Power Engineering Co. Ltd.**
Chair: **Tsutomu Koguchi - Mitsubishi Heavy Industries, Ltd.**
Chair: **Junya Kaneda - Hitachi-Ge Nuclear Energy Ltd.**

Investigation on Solidification Behavior of Deposited Metal by GTAW With ERNiCrFe-13 Wire
Technical Paper Publication: ICONE28-63770
Guo Xiao - Harbin Welding Institute
Xu Kai - Harbin Welding Institute
Lv Xiaochun - Harbing Welding Institute
Chen Peiyin - Harbin Well Welding Co., Ltd.
Chen Bo - Harbin Well Welding Co., Ltd.
Huo Shubin - Harbin Well Welding Co., Ltd.

Application of High-Precision Assembly Technology for Large Structures by Laser Beam Welding
Technical Paper Publication: ICONE28-64302

Tomoyuki Nishiyama - Mitsubishi Heavy Industries, Ltd.
Takashi Kagawa - Mitsubishi Heavy Industries, Ltd.
Shuho Tsubota - Mitsubishi Heavy Industries, Ltd.
Masahiro Kimura - Mitsubishi Heavy Industries, Ltd.

Additive Manufacturing at Westinghouse Electric
Technical Paper Publication: ICONE28-68543
William Cleary - Westinghouse Electric Company
Thomas Pomorski - Penn United Technologies
David Huegel - Westinghouse Electric Company
Clinton Armstrong - Westinghouse Electric Company

12-01 Ex-Vessel Phenomena

Session begins at 1:15PM

Chair: **Jian Deng - Nuclear Power Institute of China**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

The Experimental Research of Surface Characteristics on CHF for the Downward Facing Surface
Technical Paper Publication: ICONE28-64130
Bo Lin - CNPRI
Lei Zhang - CNPRI
Dongshan Wei - CNPRI
Junying Xu - CNPRI
Xiangyu Yun - CNPRI
Huiyong Zhang - CNPRI

Analysis of the Reflooding Process in Degraded Particle Beds by Simulations of the Debris Test Facility With the Severe Accident Analysis Code ASTEC V2.1 and COCOMO Code
Technical Paper Publication: ICONE28-60964
Jan Peschel - Ruhr-University Bochum AG PSS
Christoph Bratfisch - Ruhr-University Bochum AG PSS
Marco Koch - Ruhr-University Bochum AG PSS

Estimation of Long-Term Ex-Vessel Debris Cooling by Water in Fukushima Daiichi Nuclear Power Plant Unit-3
Technical Paper Publication: ICONE28-64246
Ikken Sato - Japan Atomic Energy Agency
Akifumi Yamaji - Waseda University
Xin Li - Waseda University
Hiroshi Madokoro - Japan Atomic Energy Agency

Analyses of Wet and Dry Cavity Strategies for Bwr Severe Accident Management With Melcor-2.2
Technical Paper Publication: ICONE28-63285
Ayato Takashima - Waseda University
Akifumi Yamaji - Waseda University
Xin Li - Waseda University
Daisuke Fujiwara - TEPCO Systems Corporation
Hitoshi Shirai - TEPCO Systems Corporation
Takumi Nojuu - TEPCO Systems Corporation

Preliminary Evaluation on the Relocation Phase of Ex-Vessel Debris of Fukushima Daiichi Nuclear Power Plant Unit-3
Technical Paper Publication: ICONE28-64540
Xin Li - Waseda University
Akifumi Yamaji - Waseda University
Masahiro Furuya - Waseda University

Ikken Sato - Japan Atomic Energy Agency
Hiroshi Madokoro - Japan Atomic Energy Agency
Yuji Ohishi - Osaka University

Characteristics of Debris From Simulated Molten Fuel Coolant Interaction Experiments
Technical Paper Publication: ICONE28-65676
Hemanth Rao Ellapu - Indira Gandhi Centre for Atomic Energy
Prabhat Kumar Shukla - Indira Gandhi Centre for Atomic Research
Paulson Varghese - HBNI
S R Polaki - Indira Gandhi Centre for Atomic Research
Vetrivendan E - Indira Gandhi Centre for Atomic Research
Sanjay Kumar Das - Indira Gandhi Centre for Atomic Research
Ponraju Durairaj - Indira Gandhi Centre for Atomic Research
Athmalingam S - Indira Gandhi Centre for Atomic Research
Venkatraman B - Indira Gandhi Centre for Atomic Research

14-01 Student Paper Competition

Session begins at 1:15PM

Chair: **Shripad Revankar - Purdue University**

Study on Local Sub-Cooling Boiling in the Vertical Upward Pipe
Technical Paper Publication: ICONE28-61374
Mengmeng Liu - Institute of Nuclear and New Energy Technology
Zhen Zhang - Institute of Nuclear and New Energy Technology
Xingtuan Yang - Institute of Nuclear and New Energy Technology

Wall Materials Effects on Sheltered Indoor Doses From an SMR Hypothetical Severe Accident Release
Technical Paper Publication: ICONE28-62097
Yamato Sugitatsu - Purdue University
Shripad T. Revankar - Purdue University

A 3D Numerical Simulation on Heat Transfer Behavior in Eagle ID1 In-Pile Test Using Finite Volume Particle Method
Technical Paper Publication: ICONE28-61469
Ting Zhang - Kyushu University
Koji Morita - Kyushu University
Xiaoxing Liu - Kyushu University
Wei Liu - Kyushu University
Kenji Kamiyama - Japan Atomic Energy Agency

Experimental Study on Bubble and Aerosol Behavior During Pool Scrubbing
Technical Paper Publication: ICONE28-61490
Kohei Yoshida - University of Tsukuba
Kota Fujiwara - University of Tsukuba
Akiko Kaneko - University of Tsukuba
Yutaka Abe - University of Tsukuba

Preliminary Version of Improved Particle-Flow Model in SIMMER-V for an Alternative Severe Accident Modeling Approach in SFRs
Technical Paper Publication: ICONE28-64152
Csengeri Eszter - Commissariat à l'Énergie Atomique et aux Énergies Alternatives
Andrea Bachrata - Commissariat à l'Énergie atomique et aux Énergies Alternatives
Laurent Trotignon - Commissariat à l'Énergie atomique et aux Énergies Alternatives
Elsa Merle - Université Grenoble Alpes

Image Based Bubbly Flow Feature Identification Using Deep Learning
Technical Paper Publication: ICONE28-64155
Takashi Furuhashi - Hokkaido University
Takuro Sasaki - Hokkaido University
Shuichiro Miwa - Hokkaido University

14-10 Student Paper Competition

Session begins at 1:15PM

Chair: **Shuichiro Miwa - Hokkaido University**
Chair: **Shripad Revankar - Purdue University**

Modeling and Sensitivity Analysis of the Sodium-Water Reaction Accident in Parallel Channels
Technical Paper Publication: ICONE28-64490
Gang Luo - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University
Xi Bai - Xi'an Jiaotong University
Huasong Cao - Xi'an Jiaotong University
Kai Wang - Nuclear Power Design and Research Sub-institute, Nuclear Power Institute of China
Huanjun Zhu - China Institute of Atomic Energy

Analysis of IP200 Severe Accident Process Response to SBO and Emergency Power Failure
Technical Paper Publication: ICONE28-64541
ZhenHang Zheng - Harbin Engineering University
Minjun Peng - Harbin Engineering University
Hao Yu - Harbin Engineering University
Yang Yang - Harbin Engineering University

Study on Buckling Strength and Post Buckling Behaviors of Reactor Vessel Lower Heads
Technical Paper Publication: ICONE28-65553
Masato Murohara - The University of Tokyo
Takuya Sato - The University of Tokyo
Naoto Kasahara - The University of Tokyo
Akira Yamazaki - The University of Tokyo

Thermal Impact on Geological Disposal of Mixed UO_2-Mox Vitrified Waste Associated With MOX Reprocessing
Technical Presentation Only: ICONE28-65722
Eriko Minari - Tokyo Institute of Technology
Tomohiro Okamura - Tokyo Institute of Technology
Masahiko Nakase - Tokyo Institute of Technology
Hidekazu Asano - Radioactive Waste Management Funding and Research Center
Kenji Takeshita - Tokyo Institute of Technology

Swift-Rimpuff Modeling of Air Dispersion at a Nuclear Powerplant Site With Heterogeneous Upwind Topography
Technical Paper Publication: ICONE28-64608
Xinwen Dong - Institute of Nuclear and New Energy Technology, Tsinghua University
Sheng Fang - Institute of Nuclear and New Energy Technology, Tsinghua University
Shuhan Zhuang - Institute of Nuclear and New Energy Technology, Tsinghua University

An Original Distributed Simulation Method Applied to the Advanced Nuclear Power Plant Control Technology Hardware-in-the-Loop Simulation Verification Platform
Technical Paper Publication: ICONE28-64464
Bowen Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Zhe Dong - Institute of Nuclear and New Energy Technology, Tsinghua University
Di Jiang - Institute of Nuclear and New Energy Technology, Tsinghua University

01-02: Operating Plant Experience - 2

Session begins at 3:00PM

Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**
Chair: **Koji Yamada - Chubu Electric Power Co., Inc.**
Chair: **Wajih Hamouda - Ontario Power Generation**
Chair: **Hong Pyo Kim - KAERI**
Chair: **Yukinori Hirose - Toshiba Energy Systems & Solutions Corporation**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Arnold Gad-Briggs - EGB Engineering and Cranfield University**
Chair: **Fuping Fan - Sanmen Nuclear Power Co., Ltd.**
Chair: **Tunfeng QI - WANO Shanghai Office**

A Sodium-Cooled Fast Reactor Simulation System and its Application in Teaching Research Based on VPOWER Platform
Technical Paper Publication: ICONE28-64364
- Chengzhi Ji - Tsinghua University
- Biheng Xie - Tsinghua University
- Xiaoyu Guo - Tsinghua University
- Wenbin Han - Tsinghua University
- Yisheng Hao - Tsinghua University
- Junyi Chen - Tsinghua University
- Shanfang Huang - Tsinghua University
- Kan Wang - Tsinghua University
- Hongbin Wei - Tsinghua University
- Yanming Liang - Beijing Neoswise Science & Technology Co. Ltd.

Experimental Study on Performance Improvement of HTR-10 Helium Purification System
Technical Paper Publication: ICONE28-64681
- Fangfang Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
- Liqiang Wei - Institute of Nuclear and New Energy Technology, Tsinghua University
- Tianyu Kang - Institute of Nuclear and New Energy Technology, Tsinghua University
- Chuangguo Hu - Institute of Nuclear and New Energy Technology, Tsinghua University
- Feng Xie - Institute of Nuclear and New Energy Technology, Tsinghua University
- Xiaoming Chen - Institute of Nuclear and New Energy Technology, Tsinghua University
- Lei Shi - Institute of Nuclear and New Energy Technology, Tsinghua University

Automated Eddy Current Array Sensor Delivery Tool for Nondestructive Examination of Spent Fuel Pool Liner
Technical Paper Publication: ICONE28-65628
- Michael Smith - University of North Carolina at Charlotte
- Emily Abbate - University of North Carolina at Charlotte
- Joey Phillips - University of North Carolina at Charlotte
- Byungsik Yoon - Electric Power Research Institute

Occupational Radiation Exposures ALARA Reduction Through Fast Purging of Hydrogen Cooled Generators for Boiling Water Nuclear Reactors
Technical Presentation Only: ICONE28-76369
- Ted Warren - Lectrodryer
- Keith Quick - Southern Nuclear

02-02/05-04: Safety Systems and Analyses/Nuclear Fuels, Research, and Fuel Cycle

Session begins at 3:00PM

Chair: **Brian Fant - Bechtel**
Chair: **Leon Cizelj - Jozef Stefan Institute**

Improvement of Transverse Leakage Term Based on Fourier Series Expansion in the 2D/1D Method
Technical Paper Publication: ICONE28-64612
Kaijie Zhu - Tsinghua University
Boran Kong - Institute of Nuclear and New Energy Technology, Tsinghua University
Han Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Jiong Guo - Institute of Nuclear and New Energy Technology, Tsinghua University
Fu Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Jie Hou - Institute of Nuclear and New Energy Technology, Tsinghua University

Recent Activities and New Challenges for the EUR Organization
Technical Paper Publication: ICONE28-64617
Vincent Sorel - EDF

Affect Analysis of Surface Liquid Film Coverage on the Safety Performance of Containment
Technical Paper Publication: ICONE28-64278
Xingwei Shi - Nuclear and Radiation Safety Center
Xinfang Cui - Beijing System Design Institutes of Electro-Mechanic Engineering
Shaoxin Zhuang - Nuclear and Radiation Safety Center
Wei Song - Nuclear and Radiation Safety Center
Jiaxu Zuo - Nuclear and Radiation Safety Center

Study on the Applicability of Typical Valve Failure Data to Non-Reactor Nuclear Fuel Cycle Facilities
Technical Paper Publication: ICONE28-63354
Dan Lyu - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Xiao-Wei Yang - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Yan Lu - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Shi-Jun Wang - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Chun-Yan Xu - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment

Machine Learned Metamodeling of a Computationally Intensive Accident Simulation Code
Technical Paper Publication: ICONE28-66619
Jun Liao - Westinghouse Electric Company LLC
Clarence Worrell - Westinghouse Electric Company
James Spring - Westinghouse Electric Company
Landon Conner - Purdue University

07-02: Thermal-Hydraulics Experimental Studies - II

Session begins at 3:00PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Quantitative Measurements of Bubbles and Foam Flow Generated From Two-Phase Subcooled Flow Boiling of Seawater in a Vertical Annulus
Technical Paper Publication: ICONE28-64748
Yuanjie Li - City University of Hong Kong
Chin Pan - City University of Hong Kong
Syed Waqar Ali Shah - City University of Hong Kong

Experimental and Numerical Investigation on Debris Bed Quenching With Additional Injection of Non-Condensable Gas
Technical Paper Publication: ICONE28-65512
Markus Petroff - University of Stuttgart
Rudi Kulenovic - University of Stuttgart
Jörg Starflinger - University of Stuttgart

Experimental Study on the Critical Heat Flux of the Zirconium Alloy Microstructure Surface Fabricated by Ultraviolet Laser
Technical Paper Publication: ICONE28-65752
Quan-yao Ren - NPIC
Haoyu Wang - NPIC
Fawen Zhu - NPIC
Yuanming Li - NPIC
Lin Zhang - NPIC
Zengping Pu - NPIC
Pan Yuan - NPIC
Renjie Ran - NPIC
Chunlan Huang - NPIC
Quan Li - NPIC
Xiaoliang Wang - Harbin Institute of Technology
Yongda Liu - Harbin Institute of Technology
Jie Xu - Harbin Institute of Technology

UHT Test Facility Updates and Oxidation Tests for Accident Tolerant_x000B_Fuel Development
Technical Paper Publication: ICONE28-66592
Guoqiang Wang - Westinghouse Electric Co.
William A. Byers - Westinghouse Electric Company LLC

A New Insight Into Molten Corium Concrete Interaction With Concrete Ablation Analysis for Mitigation Scheme
Technical Paper Publication: ICONE28-65217
Ilyas Khurshid - Khalifa University of Science and Technology
Amidu Alade - Khalifa University of Science and Technology
Yacine Addad - Khalifa University of Science and Technology
Imran Afghan - Khalifa University of Science and Technology

08-02: Numerical Simulation and Analyses

Session begins at 3:00PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Three-Dimensional Numerical Simulation on Transient Natural Circulation Device Characteristics of DRACS in PLANDTL-DHX Experimental Device
Technical Paper Publication: ICONE28-64515
Zijia Chen - North China Electric Power University
Daogang Lu - North China Electric Power University
Yuhao Zhang - North China Electric Power University
Jinsong Guo - North China Electric Power University

Numerical Simulation of Added Mass in Narrow Gaps of Multi-Layer Thin-Walled Shell of Fast Reactor
Technical Paper Publication: ICONE28-64644
Duan Dexuan - North China Electric Power University
Daogang Lu - North China Electric Power University
Yu Liu - North China Electric Power University
Donghao Li - North China Electric Power University

Numerical Analysis of Pressurized Thermal Shock in Reactor Pressure Vessel
Technical Paper Publication: ICONE28-64737
Yubin Zhang - China Nuclear Power Research Institute Ltd.

Numerical Simulation of Bubble Shape and Departure in Nucleate Pool Boiling at High Superheat
Technical Paper Publication: ICONE28-64740
Swapan Paruya - National Institute of Technology Durgapur
Jyoti Bhati - National Institute of Technology Durgapur
Farheen Akhtar - National Institute of Technology Durgapur

Numerical Simulation of Thermo-Hydraulic Characteristics of 7-Pin Sodium Fast Reactor Test Fuel Bundle With Variable-Pitch Helical Wire
Technical Paper Publication: ICONE28-64755
Siyuan Li - China Institute of Atomic Energy
Aimin Zhang - China Institute of Atomic Energy
Songtao Ji - China Institute of Atomic Energy
Yanlin Li - Tsinghua University

Analysis of Particle Transfer Behavior in Fuel Rod Bundles Using CFD Lagrangian Particle Tracking Method
Technical Paper Publication: ICONE28-66793
Yiban Xu - Westinghouse Electric Company, LLC
Michael A. Krammen - Westinghouse Electric Company LLC
Guoqiang Wang - Westinghouse Electric Company LLC
Jesse S. Fisher - Westinghouse Electric Company LLC
Zeses Karoutas - Westinghouse Electric Company LLC

12-02 Containment Issues

Session begins at 3:00PM

Chair: **Tadashi Watanabe - University of Fukui**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

Study on Potential Leakage and Electrical Performance for Electrical Penetration Assemblies Under Severe Accident Conditions
Technical Paper Publication: ICONE28-64368
Yu Liu - China Nuclear Power Engineering
Jing Liu - China Nuclear Power Engineering
Cong Wang - China Nuclear Power Engineering
Heng Gao - China Nuclear Power Engineering

14-02 Student Paper Competition

Session begins at 3:00PM

Chair: **Shripad Revankar - Purdue University**

Experimental Study on Heat Transfer Characteristics of Water Injection on Molten Pool With Low Mass Fraction of Zirconium
Technical Paper Publication: ICONE28-62115
Zongyang LI - Tsinghua University
Huajian Chang - Tsinghua University & State Power Investment Corporation Research Institute
Fangfang Fang - State Power Investment Corporation Research Institute
Kun Han - State Power Investment Corporation Research Institute

Botao Hao - State Power Investment Corporation Research Institute
Lian Chen - State Power Investment Corporation Research Institute

Research on Eccentricity Performance of Capacitance Rod Position Measurement Sensor for Measuring Non-Metallic Rod
Technical Paper Publication: ICONE28-62370
Yanlin Li - Institute of Nuclear and New Energy Technology of Tsinghua University
Benke Qin - Institute of Nuclear and New Energy Technology of Tsinghua University
Hanliang Bo - Institute of Nuclear and New Energy Technology of Tsinghua University

Effect of Annealing Temperature on Dislocation Loop Absorption and Evolution in Fe by Molecular Dynamics Study
Technical Paper Publication: ICONE28-62550
Pandong Lin - Institute of Nuclear and New Energy Technology
Junfeng Nie - Institute of Nuclear and New Energy Technology
Meidan Liu - Institute of Nuclear and New Energy Technology

Study on Heat Transfer Coefficient of Supercritical Water Based on Factorial Analysis
Technical Paper Publication: ICONE28-63216
Peng Xu - North China Electric Power University
Tao Zhou - Southeast University
Ning Chen - North China Electric Power University
Juan Chen - North China Electric Power University
Zhongguang Fu - North China Electric Power University

Simulation Research of Combustion Characteristics of Mixed Sodium Fire in a Columnar Flow
Technical Paper Publication: ICONE28-63298
Yaolong Ma - Harbin Engineering University
Zhigang Zhang - Harbin Engineering University
Qi Wu - Harbin Engineering University
Fang Wang - Harbin Engineering University

14-11 Student Paper Competition

Session begins at 3:00PM

Chair: **Suyuan Yu - INET, Tsinghua University**
Chair: **Shripad Revankar - Purdue University**

Simulation Analysis and Optimization of Lubricating Oil System
Technical Paper Publication: ICONE28-64547
Qiongxiao Wu - Harbin Engineering University
Jianjun Wang - Harbin Engineering University
Jingming Chen - Wuhan Second Ship Design and Research Institute
Pengzheng Li - Wuhan Second Ship Design and Research Institute

Research on the Air-Water Flow Regime and Characteristics in Rectangular Channel
Technical Paper Publication: ICONE28-66238
Qingche He - Chongqing University
Wangtao Xu - Chongqing University
Meiyue Yan - Chongqing University
Luteng Zhang - Chongqing University
Liangming Pan - Chongqing University

Mixing Process of Two Component Gases by Natural Convection and Molecular Diffusion
Technical Paper Publication: ICONE28-64553
Takeaki Ube - University of Yamanashi
Tetsuaki Takeda - University of Yamanashi

High Flux Reactor Review and Reactivity Control Analysis
Technical Paper Publication: ICONE28-64723
Lin Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Wei Xu - Institute of Nuclear and New Energy Technology, Tsinghua University
Fei Xie - Institute of Nuclear and New Energy Technology, Tsinghua University

Effects of Non-Condensable Gas on Characteristics of Natural Circulation Flow of Isolation Condenser
Technical Paper Publication: ICONE28-64595
Tetsuya Takada - Hokkaido University
Yasunori Yamamoto - Hokkaido University
Kosuke Ono - Hokkaido University

14-18 Student Paper Competition

Session begins at 3:00PM

Chair: **Satoshi Takeda - Osaka University**
Chair: **Shripad Revankar - Purdue University**

Experimental Study on the Flow Characteristics of Rod Bundle Under Rolling Motion
Technical Paper Publication: ICONE28-65590
Xin Li - Harbin Engineering University
Sichao Tan - Harbin Engineering University
Chao Qi - Harbin Engineering University
Peiyao Qi - Harbin Engineering University
Shouxu Qiao - Harbin Engineering University

Nonlinear Low Bias Current Control for Magnetic Bearing System Using Active Disturbance Rejection Technology
Technical Paper Publication: ICONE28-65730
Yichen Yao - Tsinghua University
Yixin Su - Tsinghua University
Suyuan Yu - Tsinghua University

Optimization of Maintenance Strategy for Sea Water Pumps in Nuclear Plants
Technical Paper Publication: ICONE28-65720
Ling Zhao - Nuclear Power Operations Research Institute
Deyi Liu - CNNP Nuclear Power Operations Management Co., Ltd.
Ming Zhao - CNNP Nuclear Power Operations Management Co., Ltd.

The Effect of Flow Channel Geometry on Thermomechanical Performance of Printed Circuit Heat Exchanger (PCHE)
Technical Paper Publication: ICONE28-65609
Witiwat Jiragoontansiri - King Mongkut’s University of Technology Thonburi
Teerapat Woravisuttsarakul - King Mongkut’s University of Technology Thonburi
Rinrada Sae-Pueng - King Mongkut’s University of Technology Thonburi
Yanin Sukjai - King Mongkut's University of Technology Thonburi
Koroush Shirvan - Massachusetts Institute of Technology

THURSDAY, AUGUST 5

02-03: Properties and Degradation of Materials

Session begins at 12:45PM

Chair: **Damien Feron - CEA**
Chair: **Leon Cizelj - Jozef Stefan Institute**

Study on Dehumidification of Carbon Materials Based on Thermogravimetry
Technical Paper Publication: ICONE28-63633
Da Yan - Institute of Nuclear and New Energy Technology, Tsinghua University
Kaiyue Shen - Institute of Nuclear and New Energy Technology, Tsinghua University
Yicheng Guo - Institute of Nuclear and New Energy Technology, Tsinghua University
Huaqiang Yin - Institute of Nuclear and New Energy Technology, Tsinghua University
Tao Ma - Institute of Nuclear and New Energy Technology, Tsinghua University
Xuedong He - Tsinghua University

Oxidation Behaviors of the High Temperature Alloys in the Impure Helium and Argon
Technical Paper Publication: ICONE28-63659
Wei Zheng - Tsinghua University
Haoxiang Li - Tsinghua University
Qiuhao Wang - Tsinghua University
Huaqiang Yin - Tsinghua University
Xuedong He - Tsinghua University
Hua Fan - Tsinghua University
Tao Ma - Tsinghua University

Corrosion Behavior of Superalloys in High Temperature Gas Cooled Reactor in Impure Helium with Corrosion Time
Technical Paper Publication: ICONE28-64351
Haoxiang Li - Tsinghua University
Bin Du - Tsinghua University
Wei Zheng - Tsinghua University
Qiuhao Wang - Tsinghua University
Huaqiang Yin - Tsinghua University
Xuedong He - Tsinghua University
Hua Fan - Tsinghua University
Tao Ma - Tsinghua University

Cause Analysis and Influence Evaluation of Cracks in Thick Slab Construction
Technical Paper Publication: ICONE28-64548
Yi Guixiang - Central Research Institute of Building and Construction Co., Ltd. MCC
Li Liang - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection

Comparative Study on Thermal Stress Analysis and Fatigue Curve in Stress and Fatigue Calculation of Nuclear Equipment
Technical Paper Publication: ICONE28-64784
Xuejiao Shao - Nuclear Power Institute of China
Hai Xie - Nuclear Power Institute of China
Liping Zhang - Nuclear Power Institute of China
Yixiong Zhang - Nuclear Power Institute of China
Xiaolong Fu - Nuclear Power Institute of China
Xue Mi - Nuclear Power Institute of China
Hui Li - Nuclear Power Institute of China

Evaluations of TiO_2 Deposition on Structure Surfaces and Water Radiolysis for the Corrosive Environment in a Reactor Pressure Vessel
Technical Paper Publication: ICONE28-64931

Takashi Mawatari - Toshiba Energy Systems & Solutions Corporation
Yasushi Yamamoto - Toshiba Energy Systems & Solutions Corporation
Osamu Shibasaki - Toshiba Energy Systems & Solutions Corporation
Takahiro Hara - Toshiba Energy Systems & Solutions Corporation
Yusuke Horayama - Toshiba Energy Systems & Solutions Corporation
Junichi Takagi - Toshiba Energy Systems & Solutions Corporation

03-01: Advanced Reactors and Fusion

Session begins at 12:45PM

Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**
Chair: **Jovica Riznic - Canadian Nuclear Safety Commission**
Chair: **Glenn Harvel - University of Ontario Institute of Technology**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Mohamed El-Genk - University of New Mexico**
Chair: **Rosa Lo Frano - Dimnp - University of Pisa**
Chair: **Dmitry Paramonov - JSC Atomenergoproekt**
Chair: **Ivan Otic - Karlsruhe Institut of Technology**
Chair: **Takeshi Yamada - Hitachi-GE Nuclear Energy, Ltd.**
Chair: **Tomohiko Ikegawa - Hitachi**
Chair: **Hideki Horie - Toshiba Corp.**
Chair: **Hiroshige Kikura - N/A**
Chair: **Hideharu Takahashi - N/A**
Chair: **Fu Li - Tsinghua University**
Chair: **Grant Hawkes - Idaho National Laboratory**
Chair: **Wulyu Zhong - Southwestern Institute of Physics**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**

Alternative Absorber Materials for Control Rods in ALFRED
Technical Paper Publication: ICONE28-61123
Hui Guo - Shanghai Jiao Tong University
Xin Jin - Shanghai Jiao Tong University
Kuaiyuan Feng - Shanghai Jiao Tong University
Hanyang Gu - Shanghai Jiao Tong University

Corrosion Behavior of Iron-Chrome Alloys in Liquid Bismuth
Technical Paper Publication: ICONE28-63277
Toshihide Takai - Japan Atomic Energy Agency
Tomohiro Furukawa - Japan Atomic Energy Agency
Shigeki Watanabe - National Institutes for Quantum and Radiological Science and Technology
Noriko Ishioka - National Institutes for Quantum and Radiological Science and Technology

Numerical Investigation of Safety System Parameters in Molten Salt Reactor: Wall Effect on Freeze Valve Opening Time
Technical Paper Publication: ICONE28-64134
Muhammad Ilham - The University of Electro-Communications
Indarta Kuncoro Aji - Kyushu University
Okawa Tomio - The University of Electro-Communications

A Preliminary Study on Neutronic Performance of the Spallation Target With the Proton Beam Variation
Technical Paper Publication: ICONE28-64388
Junjie Zhou - South China University of Technology
Qin Zeng - South China University of Technology
Jinchen Yang - South China University of Technology

Yi Yang - South China University of Technology
Ying Shi - South China University of Technology
Yanyi Jiang - South China University of Technology

Sensitivity Analysis of Power Related Parameters in a Reactivity-Initiated Accident of a Molten Salt Reactor
Technical Paper Publication: ICONE28-64430
Chaoqun Wang - Shanghai Institute of Applied Physics, Chinese Academy of Sciences
Qun Yang - Shanghai Institute of Applied Physics, Chinese Academy of Sciences
Kai Wang - Shanghai Institute of Applied Physics, Chinese Academy of Sciences
Xiaowei Jiao - Shanghai Institute of Applied Physics, Chinese Academy of Sciences
Zhaozhong He - Shanghai Institute of Applied Physics, Chinese Academy of Sciences

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04-01: Micro Reactor Design Aspects

Session begins at 12:45PM

Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**

Study on the Small Pressurized Water Reactor Based on Fully Ceramic Microencapsulated Fuel
Technical Paper Publication: ICONE28-63314
Jinfeng Huang - East China University of Science and Technology

Preliminary Core Design of the Solid Moderator Reactor for Investigation of the In-Depth Europa Ice Layer
Technical Paper Publication: ICONE28-64261
Shuta Fukizaki - Waseda University
Akifumi Yamaji - Waseda University
Takanari Fukuda - Waseda University

Westinghouse eVinci Heat Pipe Micro Reactor Technology Development
Technical Paper Publication: ICONE28-67519
Matt Swartz - Westinghouse Electric Co.
William Byers - Westinghouse Electric Co.
Rory Blunt - Westinghouse Electric Co.
John Lojek - Westinghouse Electric Co.

07-03: Numerical Evaluation and Analysis

Session begins at 12:45PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Numerical Evaluation of Sodium-Water Reaction Based on Engineering Approach With Particle Method
Technical Paper Publication: ICONE28-61345
Wataru Kosaka - Japan Atomic Energy Agency
Akihiro Uchibori - Japan Atomic Energy Agency
Hideki Yanagisawa - NESI Corporation
Takashi Takata - Japan Atomic Energy Agency
Sunghyon Jang - The University of Tokyo

Numerical Simulation of Vortex Shedding Downstream of a Thermoacoustic Engine Stack
Technical Paper Publication: ICONE28-63381
Bowen Qiao - Chiba University
Shota Yamada - Chiba University
Gaku Tanaka - Chiba University

Application of High Accuracy Numerical Methods for the Natural Circulation Problem
Technical Paper Publication: ICONE28-64367
Fei Chao - Wuhan Second Ship Design and Research Institute
Longze Li - Wuhan Second Ship Design and Research Institute
Wen Yang - Wuhan Second Ship Design and Research Institute
Jinrong Qiu - Wuhan Second Ship Design and Research Institute
Yun Tai - Wuhan Second Ship Design and Research Institute
Jianqiang Shan - Xi'an Jiaotong University

Numerical Analysis on the Thermal-Hydraulic Characteristics for the Reactor Main Vessel Cooling System of Chinese Sodium Cooled Fast Reactor
Technical Paper Publication: ICONE28-64293
Ping Song - Wuhan Second Ship Design and Research Institute
Tangtao Feng - Wuhan Second Ship Design and Research Institute
Dalin Zhang - Xi'an Jiaotong University
Lie Chen - Wuhan Second Ship Design and Research Institute
Shaodan Li - Wuhan Second Ship Design and Research Institute
Yuansheng Lin - Wuhan Second Ship Design and Research Institute
Suizheng Qiu - Xi'an Jiaotong University

A Numerical Study of Supersonic Film Cooling With Discrete Holes
Technical Paper Publication: ICONE28-64607
Hang Ni - Institute of Nuclear and New Energy Technology, Tsinghua University
Wei Peng - Institute of Nuclear and New Energy Technology, Tsinghua University
Jie Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Yinhai Zhu - Tsinghua University
Peixue Jiang - Tsinghua University

Numerical Calculations of the Effective Thermal Conductivity of the Dispersion Fuel Sphere With the Internal Heat Sources
Technical Paper Publication: ICONE28-65191
Ziping Liu - Institute of Nuclear and New Energy Technology, Tsinghua University
Jun Sun - Institute of Nuclear and New Energy Technology, Tsinghua University
Han Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Yu Ji - Institute of Nuclear and New Energy Technology, Tsinghua University

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11-01 Decontamination and Decommissioning

Session begins at 12:45PM

Chair: **Anthony Hechanova - Abu Dhabi Polytechnic**

Scenario Developing for Nuclear Emergency Decision Deduction Training Platform for Radiographers in Development Countries (Case Study, Ghana)
Technical Paper Publication: ICONE28-60369
Priscilla Oforiwaa - Tsinghua University
Manchun Liang - Tsinghua University
Guofeng Su - Tsinghua University
Ke Li - Tsinghua University
Chao Zhang - Tsinghua University

Radiation Dose Evaluation of Typical Design Basis Accident for Advanced PWR in China
Technical Paper Publication: ICONE28-61090
Haiying Chen - Nuclear and Radiation Safety Center
Shaowei Wang - Nuclear and Radiation Safety Center
Xinlu Tian - Nuclear and Radiation Safety Center
Fudong Liu - Nuclear and Radiation Safety Center

Features of a BWR Neutron Absorber Melt Relocation in an Oxidative Environment During the Clads-Made-02 Test
Technical Paper Publication: ICONE28-65129
Anton Pshenichnikov - Japan Atomic Energy Agency
Yuji Nagae - Japan Atomic Energy Agency
Masaki Kurata - Japan Atomic Energy Agency

Study of Penetration Behavior of Cs Into Concrete - Investigation of Permeation Behavior Using Neutron Activation Analysis for Construction of Cs Permeation Simulation Method
Technical Presentation Only: ICONE28-64566
Kai Yoneyama - Tokyo City University
Isamu Sato - Tokyo City University
Shuhei Miwa - Japan Atomic Energy Agency
Eriko Suzuki - Japan Atomic Energy Agency
Noriaki Furuya - Tokyo City University

Development of Real-Time Simulation Technology for Robots With Flexible Arms Based on Three-Dimensional Computer Graphics Methods
Technical Presentation Only: ICONE28-60410
Katsuhiko Hirano - Hitachi-GE Nuclear Energy, Ltd.
Katsunori Ueno - Hitachi-GE Nuclear Energy, Ltd.
Hiroshi Seki - Hitachi, Ltd.

12-03 Severe Accident Scenarios

Session begins at 12:45PM
Chair: **Tadashi Watanabe - University of Fukui**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Ivo Kljenak - Jozef Stefan Institute**
Chair: **Alexei Miassoedov - IAEA**
Chair: **Pavel Kudinov - Royal Institute of Technology (KTH)**
Chair: **Masahiro Ishigaki - University of Fukui**
Chair: **Chiaki Kino - Japan Atomic Energy Agency**
Chair: **Peng Chen - China General Nuclear Power Corporation**
Chair: **Yidan Yuan - China Nuclear Power Engineering**
Chair: **Jian Deng - Nuclear Power Institute of China**

Analysis of IPWR Severe Accident Process Response to SBLOCA
Technical Paper Publication: ICONE28-64417
Hao Yu - Harbin Engineering University
Minjun Peng - Harbin Engineering University

Hydrodynamic Analysis of Steam Generator Under LOCA Conditions
Technical Paper Publication: ICONE28-64709
Xiaoqiang He - Harbin Engineering University
Puzhen Gao - Harbin Engineering University
Weichao Yuan - Harbin Engineering University

Severe Accident Analysis of a Floating Nuclear Power Plant After Station Black Out Accident
Technical Paper Publication: ICONE28-64611
Longze Li - Wuhan Second Ship Design and Research Institute
Fei Chao - Wuhan Second Ship Design and Research Institute
Wen Yang - Wuhan Second Ship Design and Research Institute
Yun Tai - Wuhan Second Ship Design and Research Institute

Jinrong Qiu - Wuhan Second Ship Design and Research Institute
Jue Wang - Wuhan Second Ship Design and Research Institute
Chuan He - Wuhan Second Ship Design and Research Institute
Xiaofan Hou - Wuhan Second Ship Design and Research Institute

Loss of Main Feedwater ATWS Accident Analysis for Ship Nuclear Power Platform
Technical Paper Publication: ICONE28-65078
Jinrong Qiu - Wuhan Second Ship Design and Research Institute
Feifei Song - Wuhan Second Ship Design and Research Institute
Longze Li - Wuhan Second Ship Design and Research Institute
Fei Chao - Wuhan Second Ship Design and Research Institute
Xiaofan Hou - Wuhan Second Ship Design and Research Institute

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14-03 Student Paper Competition

Session begins at 12:45PM

Chair: **Jovica Riznic - Canadian Nuclear Safety Commission**
Chair: **Shripad Revankar - Purdue University**

Nanoindentation Test of F321 Austenitic Stainless Steel Under Fe-Ion Irradiation
Technical Paper Publication: ICONE28-63353
Meidan Liu - Institute of Nuclear and New Energy Technology
Pandong Lin - Institute of Nuclear and New Energy Technology
Junfeng Nie - Institute of Nuclear and New Energy Technology

Effective Solid Angle Model and Monte Carlo Method: Improved Estimations to Measure Cosmic Muon Intensity at Sea Level in All Zenith Angles
Technical Paper Publication: ICONE28-63444
Junghyun Bae - Purdue University
Stylianos Chatzidakis - Purdue University
Robert Bean - Purdue University

Experimental Study on Measurement of Annular Flow Film Thickness in Vertical Narrow Rectangular Channel
Technical Paper Publication: ICONE28-63469
Antai Liu - Harbin Engineering University
Haifeng Gu - Harbin Engineering University
Fuqiang Zhu - Harbin Engineering University
Changqi Yan - Harbin Engineering University

Grey Correlation Study on Natural Circulation Heat Transfer Coefficient of Liquid Metal
Technical Paper Publication: ICONE28-63561
Ning Chen - North China Electric Power University
Tao Zhou - Southeast University
Lanyu Zhou - China Nuclear Power Engineering Co., Ltd.
Tian Qi - North China Electric Power University
Juan Chen - North China Electric Power University
Xiang Feng - North China Electric Power University

Study on Flow and Heat Transfer of Liquid Gallium, {ICONE28-63480}
Technical Paper Publication
Shang Mao - Southeast University
Tao Zhou - Southeast University

02-04: Plant Construction, Equipment, and Operation

Session begins at 2:30PM

Chair: **Leon Cizelj - Jozef Stefan Institute**

Application for 3D Laser Scanning During Construction Stage of Nuclear Power Project
Technical Paper Publication: ICONE28-63294
He Weiting - CNPDC
Weifeng Jiang - CNPDC
Yikun Zhou - CNPDC

Application of Combining 3D Model and Survey on Site to Simulate Dome Lifting
Technical Paper Publication: ICONE28-65502
He Weiting - CNPDC
Yuanxia Zhou - CNPDC
Jie Yang - CNPDC

Simulation for Predicting Condition of Plant Equipment
Technical Paper Publication: ICONE28-64527
Shoichi Kashiwase - Toshiba Energy Systems & Solutions Co.
Kenji Osaki - Toshiba Energy Systems & Solutions Co.
Makoto Hatakeyama - Toshiba Energy Systems & Solutions Co.
Tomokazu Kaneko - Toshiba Energy Systems & Solutions Co.

03-02 Adv Reactors and Fusion

Session begins at 2:30PM

Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**

Numerical Study on Multiscale Heat Conduction Problems in Very High Temperature Reactor Fuel Pebble Based on Openfoam
Technical Paper Publication: ICONE28-64416
Jincheng Wang - Harbin Engineering University
Ming Ding - Harbin Engineering University

Arkadia: For the Innovation of Advanced Nuclear Reactor Design
Technical Paper Publication: ICONE28-64525
Hiroyuki Ohshima - Japan Atomic Energy Agency
Tai Asayama - Japan Atomic Energy Agency
Tomohiro Furukawa - Japan Atomic Energy Agency
Masaaki Tanaka - Japan Atomic Energy Agency
Takashi Takata - Japan Atomic Energy Agency
Yasuhiro Enuma - Japan Atomic Energy Agency

Activities of the GIF Safety and Operation Project of Sodium-Cooled Fast Reactor Systems
Technical Paper Publication: ICONE28-66385
Hidemasa Yamano - Japan Atomic Energy Agency
Marie-Sophie Chenaud - Commissariat à l'Énergie Atomique et aux Énergies
Seok-Hun Kang - Korea Atomic Energy Research Institute
Tyler Sumner - Argonne National Laboratory
Haileyesus Tsige-Tamirat - European Commission Joint Research Centre
Jin Wang - China Institute of Atomic Energy
Evegeny Rozhikhin - Institute for Physics and Power Engineering

Conceptual Study of Neutron Physics of Nuclear Fuel Cycle for Ceramic Fast Reactor
Technical Paper Publication: ICONE28-65406
Xuesong Yan - Institute of Modern Physics, Chinese Academy of Sciences
Yaling Zhang - Institute of Modern Physics, Chinese Academy of Sciences
Yucui Gao - Institute of Modern Physics, Chinese Academy of Sciences

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04-02: SMRs and Micro Reactor Designs

Session begins at 2:30PM

Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**

Design Study of SMR Class Super FR Core for In-Vessel Retention
Technical Paper Publication: ICONE28-64162
Ryotaro Sasaki - Waseda University
Akifumi Yamaji - Waseda University
Kyota Uchimura - Waseda University

A Sodium-Cooled Thermal-Spectrum Fission Battery
Technical Paper Publication: ICONE28-65765
Patrick McDaniel - University of New Mexico
Charles Forsberg - Massachusetts Institute of Technology

Neutron Physics Characterization and Optimization Analysis of the ACPR100 Small Modular Reactor
Technical Paper Publication: ICONE28-65689
Songyang Liu - Harbin Engineering University
Xiang Wang - Harbin Engineering University

Flux Rate Calculation and Analysis of the Integrated Small Pressurized Water Reactor Based on Monte Carlo Method
Technical Paper Publication: ICONE28-64448
Wen Yang - Wuhan Second Ship Design and Research Institute
Fei Chao - Wuhan Second Ship Design and Research Institute
Yun Tai - Wuhan Second Ship Design and Research Institute
Longze Li - Wuhan Second Ship Design and Research Institute

Conceptual Design and Evaluation of Residual Heat Removal System for Small Lead-Bismuth Fast Reactor
Technical Paper Publication: ICONE28-64466
Shijia Xu - Chongqing University
Qinglong Wen - Chongqing University
Shenhui Ruan - Chongqing University
Ningning Zhao - Chongqing University
Yukang Liu - Chongqing University

05-01 Fuel Manufacturing Technologies

Session begins at 2:30PM

Chair: **Paul K. Chan - Royal Military College of Canada**
Chair: **Daisuke Sato - MHI**

Research on Application of Additive Manufacturing Technology In_x000B_Nuclear Fuel Assembly Field
Technical Paper Publication: ICONE28-65776
Hua Li - Nuclear Power Institute of China
Ti Yue - Nuclear Power Institute of China

Fawen Zhu - Nuclear Power Institute of China
Yuan Peng - Nuclear Power Institute of China
Yun Li - Nuclear Power Institute of China
Chunlan Huang - Nuclear Power Institute of China
Youjia Zhang - Nuclear Power Institute of China

A Statistical Approach for Modeling the Effect of Hot Press Conditions on the Mechanical Strength Properties of HTGR Fuel Elements
Technical Paper Publication: ICONE28-64507
Jun Aihara - Japan Atomic Energy Agency
Masatoshi Kuroda - Kumamoto University
Yukio Tachibana - Japan Atomic Energy Agency

Manufacturability Estimation on Burnable Poison Mixed Fuel for Improving Criticality Safety of HTGR Fuel Fabrication
Technical Paper Publication: ICONE28-61763
Toshinari Hasegawa - Japan Atomic Energy Agency
Yuji Fukaya - Japan Atomic Energy Agency
Shohei Ueta - Japan Atomic Energy Agency
Minoru Goto - Japan Atomic Energy Agency

Development of Cesium Trap Material for Coated Fuel Particles in High Temperature Gas-Cooled Reactors
Technical Paper Publication: ICONE28-61765
Koei Sasaki - Japan Atomic Energy Agency
Shuichiro Miura - University of Fukui
Ken-Ichi Fukumoto - University of Fukui
Hirofumi Ohashi - Japan Atomic Energy Agency
Minoru Goto - Japan Atomic Energy Agency
Yan L. Xing - Japan Atomic Energy Agency

Feasibility Study of Disassembly Technologies of Fast Reactor Fuel Assembly
Technical Paper Publication: ICONE28-64250
Hidetsugu Nishikawa - Mitsubishi Heavy Industries, Ltd.
Masayuki Takeuchi - Japan Atomic Energy Agency
Toru Kitagaki - Japan Atomic Energy Agency
Yuuichi Tooya - Mitsubishi Heavy Industries, Ltd.

Risk Analysis of Gasification Process of Nuclear Fuel Manufacturing Facilities Based on FTA
Technical Paper Publication: ICONE28-63648
Xiaowei Yang - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Dan Lyu - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Ji Que - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Yuntao Liu - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Shangui Zhao - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment

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07-04: Heat Transfer Characteristics and Behavior

Session begins at 2:30PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Microscopic Heat Transfer Characteristics During Cooling of High Temperature Surface by a Falling Liquid Film
Technical Paper Publication: ICONE28-61737
Yutaro Umehara - UEC
Tomio Okawa - UEC

Core Thermal-Hydraulic Analysis During Dipped-Type Direct Heat Exchanger Operation in Natural Circulation Conditions
Technical Paper Publication ICONE28-63380
Erina Hamase - Japan Atomic Energy Agency
Norihiro Doda - Japan Atomic Energy Agency
Ayako Ono - Japan Atomic Energy Agency
Yasuhiro Miyake - NDD Corporation
Yasutomo Imai - NDD Corporation
Masaaki Tanaka - Japan Atomic Energy Agency

Aerosol Removal by a Heat Exchanger of Passive Containment Cooling System
Technical Paper Publication: ICONE28-64252
Yangyang Liang - China Nuclear Power Engineering Co., Ltd.
Junjing Lu - China Nuclear Power Engineering Co., Ltd.
Tianqi Zhang - China Nuclear Power Engineering Co., Ltd.
Xu Han - China Nuclear Power Engineering Co., Ltd.
Yidan Yuan - China Nuclear Power Engineering Co., Ltd.

A Study of Heat Transfer and Flow Characteristics Under Non-Uniform Thermal Boundary Condition
Technical Paper Publication: ICONE28-64408
Qiang Wang - Yanshan University
Yuting Xu - Tsinghua University; Chinese Academy of Customs Administration
He Wang - Heilongjiang University of Science & Technology

11-02 Radioactive Waste Management

Session begins at 2:30PM

Chair: **Anthony Hechanova - Abu Dhabi Polytechnic**

System Modelling Approach of Radionuclide Soil-to-Plant Transfer for Nuclear Emergencies Decision: Case Study – China
Technical Paper Publication: ICONE28-60416
Priscilla Oforiwaa - Tsinghua University
Manchun Liang - Tsinghua University
Guofeng Su - Tsinghua University

Study on the Structural Evaluation and Optimization of Spent Nuclear Fuel Cask
Technical Paper Publication: ICONE28-63369
Yuchen Hao - Tsinghua University
Jinhua Wang - Tsinghua University
Yue Li - Tsinghua University
Bin Wu - Tsinghua University
Haitao Wang - Tsinghua University
Tao Ma - Tsinghua University

Investigation and Design of Energy-Absorbing Structure in Nuclear Fuel Cask
Technical Paper Publication: ICONE28-63388
Yuchen Hao - Tsinghua University
Yue Li - Tsinghua University
Jinhua Wang - Tsinghua University
Bin Wu - Tsinghua University
Tao Ma - Tsinghua University
Haitao Wang - Tsinghua University

Solving the Challenges of Early Storage of Spent Fuel: The Sentry™ Spent Fuel Management System

Technical Paper Publication: ICONE28-66590
Timothy Lloyd - Westinghouse Electric

Estimation of the Amount of I-129 in the Environment Generated Due to the Decay of Te-129m Discharged by the Fukushima NPS Accident
Technical Paper Publication: ICONE28-65725
Haruo Sato - Okayama University

The Vertical Leaching Migration Research on 137Cs in Soil Around Shidaowan Plant of CAP1400
Technical Paper Publication: ICONE28-64641
Qiong Zhang - Nuclear and Radiation Safety Center

12-04 Radiological Consequences

Session begins at 2:30PM

Chair: **Yidan Yuan - China Nuclear Power Engineering**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

The Radioactivity Monitoring of Environmental Samples in Zhejiang During the Events of Nuclear Leakage in Japan
Technical Paper Publication: ICONE28-64262
Gongye Liu - Radiation Monitoring Technical Center of Ecology and Environment Ministry of China
Jia Yang - Radiation Monitoring Technical Center of Ecology and Environment Ministry of China
Xiaoyan Hu - Radiation Monitoring Technical Center of Ecology and Environment Ministry of China
Fei Hu - Radiation Monitoring Technical Center of Ecology and Environment Ministry of China
Yuanyi Xiang - Radiation Monitoring Technical Center of Ecology and Environment Ministry of China

Source and Concentration of Radionuclides by Inland Nuclear Power Plant Under Normal Operation
Technical Paper Publication: ICONE28-63275
Jiaxin Wang - Tsinghua University
Liguo Zhang - Tsinghua University

Study on Main Radionuclides of Liquid Waste in Containment Under Severe Accident
Technical Paper Publication: ICONE28-64403
Shaowei Wang - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Haiying Chen - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Wei Li - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment

The Caesium Retention Mechanism Related to Oxidation of the Reactor Coolant Boundaries Materials
Technical Presentation Only: ICONE28-63971
Ngarayana I. Wayan - Nagaoka University of Technology
Kenta Murakami - Nagaoka University of Technology
Thi-Mai-Dung Do - Nagaoka University of Technology

Preliminary Simulations on the Atmospheric Dispersion of Radioactive Substance for the Two Sites in Tunisia
Technical Paper Publication: ICONE28-63536
Ghannouchi Elyes - Institute of Nuclear and New Energy Technology, Tsinghua University
Yu Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Jianzhu Cao - Institute of Nuclear and New Energy Technology, Tsinghua University
Feng Xie - Institute of Nuclear and New Energy Technology, Tsinghua University
Liguo Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Jiejuan Tong - Institute of Nuclear and New Energy Technology, Tsinghua University
Rentai Yao - China Institute for Radiation Protection
Khaled Debbabi - Tunisian Association of Nuclear Sciences and Techniques

14-04 Student Paper Competition

Session begins at 2:30PM

Chair: **Jovica Riznic - Canadian Nuclear Safety Commission**
Chair: **Shripad Revankar - Purdue University**

Transport Behavior of Silver in High-Temperature Gas-Cooled Reactors
Technical Paper Publication: ICONE28-63484
Yu Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Jianzhu Cao - Institute of Nuclear and New Energy Technology, Tsinghua University
Feng Xie - Institute of Nuclear and New Energy Technology, Tsinghua University
Xiaobao Yang - Department of Physics, South China University of Technology
Peng Li - College of Physics and Electronic Engineering, Shanxi University
Jie Ma - College of Physics and Electronic Engineering, Shanxi University
Xianbao Duan - School of Materials Science and Engineering, Wuhan Institute of Technology

Measurement of Liquid Film Thickness for Annular Two-Phase HFC134a Gas-Liquid Ethanol Flow in the Vertical Tube
Technical Paper Publication: ICONE28-63488
Huacheng Zhang - Kyushu University
Tutomu Hisano - Kyushu University
Shoji Mori - Kyushu University
Hiroyuki Yoshida - Japan Atomic Energy Agency

Development of Liquid-Particle Image Reconstruction Method in Centrifugal Field by Linear Sensor Wireless Electrical Resistance Tomography (LS-WERT)
Technical Paper Publication: ICONE28-63487
Kota Kimura - Chiba University
Yosephus Prayitno - Chiba-University
Prima Sejati - Chiba-University
Tong Zhao – University of Gadjah Mada
Yoshiyuki Iso - IHI
Masahiro Takei - Chiba University

Research on Tritium Behavior Issues in High-Temperature Gas-Cooled Reactors
Technical Paper Publication: ICONE28-63539
Ziling Zhou - Institute of Nuclear and New Energy Technology, Tsinghua University
Chuan Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Nan Gui - Institute of Nuclear and New Energy Technology, Tsinghua University
Feng Xie - Institute of Nuclear and New Energy Technology, Tsinghua University
Yanwei Wen - Huazhong University of Science & Technology
Bin Shan - Huazhong University of Science & Technology
Jia Fu - Xihua University
Qunchao Fan - Xihua University

Study on Deposition Motion of Naturally Circulating Particulate Matter in Supercritical Water Based on Factor and Correspondence Analysis
Technical Paper Publication: ICONE28-63677
Tian Qi - North China Electric Power University
Tao Zhou - Southeast University
Ning Chen - North China Electric Power University
Juan Chen - North China Electric Power University

Robustness Analysis and Improvement of Fault Diagnosis Model for Nuclear Power Plants Based on Random Forest
Technical Paper Publication: ICONE28-64109
Jiangkuan Li - Shanghai Jiao Tong University
Meng Lin - Shanghai Jiao Tong University

02-05: Nuclear Fuel and Multiphysics Methods

Session begins at 4:15PM

Chair: **Leon Cizelj - Jozef Stefan Institute**

Study on the Transport Mechanism and Troubleshooting Analysis of Spherical Fuel in High Temperature Gas Cooled Reactor
Technical Paper Publication: ICONE28-63134
Jinhua Wang - Tsinghua University
Yuchen Hao - Tsinghua University
Yue Li - Tsinghua University
Bin Wu - Tsinghua University
Haitao Wang - Tsinghua University
Tao Ma - Tsinghua University

Experimental Simulation of Transitions Between Forced Circulation and Natural Circulation With Nuclear Reactivity Feedback
Technical Paper Publication: ICONE28-66338
Hanying Chen - Shenzhen Institute of Information Technology
Linzhong Xia - Shenzhen Institute of Information Technology
Puzhen Gao - Harbin Engineering University
Sichao Tan - Harbin Engineering University
Hongsheng Yuan - China Nuclear Power Technology Research Institute Co. Ltd.

05-02 Fuel Performance Assessment

Session begins at 4:15PM

Chair: **Paul K. Chan - Royal Military College of Canada**
Chair: **Andrew Prudil - Canadian Nuclear Laboratories**
Chair: **Robert Oelrich - Pacific Northwest National Laboratory**

Modeling of Irradiation-Induced Thermo-Mechanical Coupling Behavior in Triso-Zr Fuel
Technical Paper Publication: ICONE28-65563
Hongyang Wei - Nuclear Power Institute of China
Fawen Zhu - Nuclear Power Institute of China
Jun Ru - Nuclear Power Institute of China
Haoyu Wang - Nuclear Power Institute of China
Jing Zhang - Fudan University
Hua Li - Nuclear Power Institute of China
Yun Li - Nuclear Power Institute of China
Chunlan Huang - Nuclear Power Institute of China
Yuanming Li - Nuclear Power Institute of China
Shurong Ding - Fudan University

Preliminary Research on the Thermal-Mechanical Coupling Behavior Simulation Method of M3 Fuel
Technical Paper Publication: ICONE28-64920
Changbing Tang - Nuclear Power Institute of China
Yongjun Jiao - Nuclear Power Institute of China
Yuanming Li - Nuclear Power Institute of China
Kun Zhang - Nuclear Power Institute of China

Atomic Insights on Interaction Mechanism of Dislocation With Void/Impurity/Precipitates in BCC Iron
Technical Paper Publication: ICONE28-65197
Muhammad Zubair - University of Sharjah
M Mustafa Azeem - Xi'an Jiaotong University
Yun Di - Xi'an Jiaotong University

Evaluation of the Applicability of Plutonium Transmuted From Minor Actinides by Fusion Reactor as Fertile Fuel in Boiling Water Reactor
Technical Paper Publication: ICONE28-65139
Masaki Shimizu - Tohoku University
Hiroki Shishido - Tohoku University
Hidetoshi Hashizume - Tohoku University

Prediction of Iodine Peak and Iodine Purification Time in PWR Nuclear Power Plant With Defective Fuel Rods
Technical Paper Publication: ICONE28-64147
Liang Wang - Nuclear and Radiation Safety Center, Ministry of Ecology and Environment
Zhiyuan Liu - State Power Investment Corporation Limited
Fei Liu - State Power Investment Corporation Limited
Yuanlv Ye - Nuclear and Radiation Safety Center, MEE
Chunming Zhang - Nuclear and Radiation Safety Center
Fudong Liu - Nuclear and Radiation Safety Center, MEE

Steady-State Performance Analysis of a Dual-Cladding Design for Accident Tolerant Fuel
Technical Paper Publication: ICONE28-63101
Qianliang Deng - Institute of Nuclear and New Energy Technology, Tsinghua University
Songyang Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Dingqu Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Yueyuan Jiang - Institute of Nuclear and New Energy Technology, Tsinghua University
Zhihong Liu - Institute of Nuclear and New Energy Technology, Tsinghua University
Wei Xiong - Institute of Nuclear and New Energy Technology, Tsinghua University
Yalin Tian - Institute of Nuclear and New Energy Technology, Tsinghua University

07-05: Code and Method Improvements

Session begins at 4:15PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

A Modified Model for the Net Vapor Generation Point and Its Application on CHF Prediction in Subcooled Flow Boiling
Technical Paper Publication: ICONE28-64022
Md. Abdur Rafiq Akand - Kyushu University
Kei Kitahara - Kyushu University
Tatsuya Matsumoto - Kyushu University
Wei Liu - Kyushu University
Koji Morita - Kyushu University

Codes and Methods Improvements for VVER Comprehensive Safety Assessment: The CAMIVVER H2020 Project
Technical Paper Publication: ICONE28-64169
Denis Verrier - Framatome
Barbara Vezzoni - Framatome
Barbara Calgaro - Framatome
Olivier Bernard - Framatome
Alberto Previti - Framatome
Clément Lafaurie - Framatome
Artur Hashymov - LLC ENERGORISK
Pavlin Groudev - INRNE
Antoaneta Stefanova - INRNE
Neli Zaharieva - INRNE
Frédéric Damian - CEA

Pietro Mosca - CEA
Daniele Tomatis - CEA
Ulrich Bieder - CEA
Adrien Willien - EDF
Nicolas Dos Santos - EDF
Luigi Mercatali - KIT Institute for Neutron Physics and Reactor Technology
Victor Hugo Sanchez-Espinoza - KIT Institute for Neutron Physics and Reactor Technology
Nicola Forgione - Università di Pisa
Sandro Paci - Università di Pisa

Hybrid Improved Empirical Mode Decomposition and Artificial Neural Network Model for the Prediction of Critical Heat Flux (CHF)
Technical Paper Publication: ICONE28-64879
Messaoud Djeddou - Larbi Ben M'Hidi University of Oum El-Bouaghi
Xingang Zhao - Oak Ridge National Laboratory
Ibrahim A. Hameed - Norwegian University of Science and Technology
Ahmed Rahmani - Larbi Ben M'Hidi University of Oum El-Bouaghi

Research on Dimensionless Analysis Method of Scale Effects for Molten Pool Experiments
Technical Paper Publication: ICONE28-64739
Fengyang Quan - China Nuclear Power Engineering Co., Ltd.
Wei Li - China Nuclear Power Engineering Co., Ltd.
Zikun Zhao - China Nuclear Power Engineering Co., Ltd.
Xiao Zeng - China Nuclear Power Engineering Co., Ltd.
Yong Guo - China Nuclear Power Engineering Co., Ltd.
Yidan Yuan - China Nuclear Power Engineering Co., Ltd.

07-10: Thermal-Hydraulics General Studies and Analyses - III

Session begins at 4:15PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Implementation of Solar Salt as Fluid in asyst4.1 and Validation for a Natural Circulation Loop
Technical Paper Publication: ICONE28-64703
A.K. Trivedi - McMaster University
D.R. Novog - McMaster University
C. Allison - Innovative Systems Software

Spreading Behavior of Molten Metal on Flat Plate in a Shallow Water Pool
Technical Paper Publication: ICONE28-64614
Yasunori Yamamoto - Hokkaido University
Tomomasa Ito - Hokkaido University
Kyosuke Nihashi - Hokkaido University
Shuichiro Miwa - Hokkaido University

Phase-Field Model for Recrystallization of Impurities in Sodium Coolant
Technical Paper Publication: ICONE28-65721
Munemichi Kawaguchi - University of Fukui

Design of a Novel Test Section for the Lead Fast Reactors Development: The CIRCE-THETIS Facility
Technical Paper Publication: ICONE28-65575
Pierdomenico Lorusso - ENEA
Ivan Di Piazza - ENEA
Daniele Martelli - ENEA
Andrea Musolesi - ENEA
Mariano Tarantino - ENEA

11-03 Decontamination and Decommissioning

Session begins at 4:15PM

Chair: **Anthony Hechanova - Abu Dhabi Polytechnic**

Research of a Fast Sample Preparation Method for Water Radioactivity Measurement
Technical Paper Publication: ICONE28-60437
Xiangwei Wang - Tsinghua University
Shuijun He - Tsinghua University
Manchun Liang - Tsinghua University
Guofeng Su - Tsinghua University
Anying Chen - Tsinghua University
Chao Zhang - Tsinghua University
Ke Li - Tsinghua University

Risk Factors Selection Approach for Nuclear Decommissioning Risk Assessment, Modeling and Management
Technical Paper Publication: ICONE28-63239
Ngbede Junior Awodi - College of Nuclear Science and Technology
Yong-Kuo Liu - Harbin Engineering University
Abiodun Ayodeji - Zhejiang University
Justina Onyinyechukwu Adibeli - Harbin Engineering University

The Development Status of Decommissioning Technology of Nuclear Facilities: An Insight From Patents
Technical Paper Publication: ICONE28-64203
Yading Zhang - China Institute of Nuclear Information & Economics
Dan Mo - China Institute of Nuclear Information & Economics
Ran Su - China Institute of Nuclear Information & Economics
Haoliang Haoliang - China Institute of Nuclear Information & Economics

Design Analysis of Radiation Shielding Door in High-Level Waste Treatment Plant
Technical Paper Publication: ICONE28-64335
Jingyi Shen - China Nuclear Power Engineering Co., Ltd.
Zonghuan Chen - China Nuclear Power Engineering Co., Ltd.
Bingheng Wang - China Nuclear Power Engineer Co., Ltd.
Guiling Gao - China Nuclear Power Engineering Co., Ltd.

Summary of the Practice of Clearance of Uranium-Containing Calcium Fluoride Slags in China’s Nuclear Facilities
Technical Paper Publication: ICONE28-64357
Lei Qiang - China NSC
Jing Jiang - Nuclear and Radiation Safety Center, MEE
Shijun Wang - Nuclear and Radiation Safety Center, MEE
Chunyan Xu - Nuclear and Radiation Safety Center, MEE
Zhaowen Zhu - Nuclear and Radiation Safety Center, MEE
Chen Xu - Nuclear and Radiation Safety Center, MEE
Xiaolong Li - Nuclear and Radiation Safety Center, MEE
Min Zhang - Nuclear and Radiation Safety Center, MEE

12-05 Structural Integrity

Session begins at 4:15PM

Chair: **Peng Chen - China General Nuclear Power Corporation**

Chair: **Ivo Kljenak - Jozef Stefan Institute**

Study on Safety Class 2 Piping Fatigue Evaluation for 60 Years of Design Life
Technical Paper Publication: ICONE28-62333
Dae Geon Lee - KEPCO E&C
Kyoung Su Kim - KEPCO E&C
Young Hun Heo - KEPCO E&C
Seong Ho Cho - KEPCO E&C
Hyeong Wook Kim - KEPCO E&C

Sensitivity Analysis on the Blast Resistance of Steel Concrete Structure Wall Based on CONWEP
Technical Paper Publication: ICONE28-64415
Guopeng Ren - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Liang Li - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Rong Pan - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Feng Sun - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection

Research and Design of LBB System for Main Pipeline of Nuclear Power Plant
Technical Paper Publication: ICONE28-64429
Yingying Jiang - Harbin Engineering University
Hong Xia - Harbin Engineering University
Zhichao Wang - Harbin Engineering University
Jiyu Zhang - Harbin Engineering University
Wenzhe Yin - Harbin Engineering University

Visualization Method of Resilience of Nuclear Structure
Technical Presentation Only: ICONE28-65746
Yuto Kuwabara - University of Tokyo
Kazuyuki Demachi - University of Tokyo
Shi Chen - University of Tokyo

14-05 Student Paper Competition

Session begins at 4:15PM

Chair: **Wolfgang Hansen - Technische Universität Dresden**
Chair: **Shripad Revankar - Purdue University**

Research on Grey Correlation of Factors Influencing Particulate Matter Concentration of Supercritical Water Reactor
Technical Paper Publication: ICONE28-63699
Cheng Hu - North China Electric Power University
Tao Zhou - Southeast University
Juan Chen - North China Electric Power University
Ning Chen - North China Electric Power University
Xijia Ding - North China Electric Power University
Fang Xiaolu - North China Electric Power University

Experimental Observation of Nucleate Boiling Entrainment in a Liquid Film
Technical Paper Publication: ICONE28-63813
Junpei Tabuchi - The University of Electro-Communications
Yuki Narushima - Hitachi, Ltd.
Kenichi Katono - Hitachi, Ltd.
Tomio Okawa - The University of Electro-Communications

Calculation of Probability of Survival (POS) in Dynamic Systems Based on RMC Code
Technical Paper Publication: ICONE28-64077
Conglong Jia - Tsinghua University
Guanlin Shi - Tsinghua University
Zhiyuan Feng - Tsinghua University
Xiaoyu Guo - Tsinghua University
Kan Wang - Tsinghua University
Shanfang Huang - Tsinghua University
Jingang Liang - Tsinghua University

The Interfacial Area Weighted Area-Averaged Gas Velocity Model for the Interfacial Area Transport Equation in the System Analysis Code
Technical Paper Publication: ICONE28-64196
Mengsi Shen - Shanghai Jiao Tong University
Meng Lin - Shanghai Jiao Tong University

14-12 Student Paper Competition

Session begins at 4:15PM

Chair: **Suyuan Yu - INET, Tsinghua University**
Chair: **Shripad Revankar - Purdue University**

Study on Radiation Dose Calculation of PWR Spent Fuel Storage and Transportation
Technical Paper Publication: ICONE28-64457
Wen Yang - Wuhan Second Ship Design and Research Institute
Xing Li - Wuhan Second Ship Design and Research Institute
Jinrong Qiu - Wuhan Second Ship Design and Research Institute
Lun Zhou - Wuhan Second Ship Design and Research Institute

Using Monte Carlo Method and Adaptive Sampling to Estimate the Limit Surface
Technical Paper Publication: ICONE28-64484
Lixuan Zhang - Harbin Engineering University
Zhijian Zhang - Harbin Engineering University
He Wang - Harbin Engineering University
Yuhang Zhang - Harbin Engineering University
Dabin Sun - Harbin Engineering University

Analysis of Temperature Field in Hot Leg Piping of Space Nuclear Closed Brayton Cycle
Technical Paper Publication: ICONE28-64526
Wenkui Ma - Institute of Nuclear and New Energy Technology of Tsinghua University
Ping Ye - Institute of Nuclear and New Energy Technology of Tsinghua University
Yue Gao - Institute of Nuclear and New Energy Technology of Tsinghua University
Gang Zhao - Institute of Nuclear and New Energy Technology of Tsinghua University
Xiaoyong Yang - Institute of Nuclear and New Energy Technology of Tsinghua University
Jie Wang - Institute of Nuclear and New Energy Technology of Tsinghua University

Power Control System Design for a Heat Pipe Cooled Reactor
Technical Paper Publication: ICONE28-64468
Haowei Sun - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University

Development of Ultrasonic Measurement System for Shape and 2D Velocity Field Using Ultrasonic Velocity Profiler and Total Focusing Methods
Technical Paper Publication: ICONE28-64510
Zeliang Zhang - Tokyo Institute of Technology

Tianrun Liu - Tokyo Institute of Technology
Munkhbat Batsaikhan - Tokyo Institute of Technology
Hideharu Takahashi - Tokyo Institute of Technology
Hiroshige Kikura - Tokyo Institute of Technology

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02-06: Design Analyses and Optimisation

Session begins at 12:00PM

Chair: **Leon Cizelj - Jozef Stefan Institute**

Optimization of Active Magnetic Bearings' Power Supply System for Main Helium Fan in High Temperature Gas-Cooled Reactor
Technical Paper Publication: ICONE28-64397
Luo Huan - Tsinghua University
Mo Ni - Institute of Nuclear and New Energy Technology of Tsinghua University
Zhou Yan - Institute of Nuclear and New Energy Technology of Tsinghua University
Shi Zhengang - Institute of Nuclear and New Energy Technology of Tsinghua University

Dynamic Characteristics Analysis of Nuscale in Frequency Domain
Technical Paper Publication: ICONE28-64460
Jingrui Yang - Science and Technology on Reactor System Design Technology Laboratory, Nuclear Power Institute of China
Qian Ma - Xi'an Jiaotong University
Lingtong Han - China National Nuclear Industry Corporation 404
Peiwei Sun - Xi'an Jiaotong University

A High-Temperature Gas-Cooled Reactor (HTGR) Simulation System and Its Application Based on Vpower Platform
Technical Paper Publication: ICONE28-64532
Biheng Xie - Tsinghua University
Chengzhi Ji - Tsinghua University
Xiaoyu Guo - Tsinghua University
Wenbin Han - Tsinghua University
Yisheng Hao - Tsinghua University
Junyi Chen - Tsinghua University
Shanfang Huang - Tsinghua University
Kan Wang - Tsinghua University
Hongbin Wei - Beijing Neoswise Science & Technology Co. Ltd.
Yanming Liang - Beijing Neoswise Science & Technology Co. Ltd.

Research on DTS Analysis Method for 1000MWe PWR NPP
Technical Paper Publication: ICONE28-64716
Yubin Zhang - China Nuclear Power Research Institute Ltd.

Experimental and Analytical Investigation on Local Damage to Reinforced Concrete Panels Subjected to Projectile Impact: Part 1 – Penetration Damage Mode due to Normal Impact
Technical Paper Publication: ICONE28-64521
Zuoyi Kang - Japan Atomic Energy Agency
Yukihiko Okuda - Japan Atomic Energy Agency

Akemi Nishida - Japan Atomic Energy Agency
Haruji Tsubota - Japan Atomic Energy Agency
Yinsheng Li - Japan Atomic Energy Agency

04-03: Miscellaneous System Design Considerations

Session begins at 12:00PM

Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**
Chair: **Jovica Riznic - Canadian Nuclear Safety Commission**
Chair: **Y.A. Hassan - Professor, Texas A&M**
Chair: **Daisuke Sato - N/A**
Chair: **Yoshihiro Isobe - Nuclear Fuel Industries Ltd.**
Chair: **Takashi Shimomura - Mitsubishi Nuclear Fuel Co., Ltd.**
Chair: **Satoshi Takeda - Osaka University**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Danrong Song - Nuclear Power Institute of China**
Chair: **Hongyi Yang - China Institute of Atomic Energy**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**

Load Match-Oriented Coordinated Control for Modular High Temperature Gas-Cooled Reactor Based on Dynamic Matrix Control
Technical Paper Publication: ICONE28-64572
Di Jiang - Tsinghua University
Zhe Dong - Tsinghua University
Bowen Li - Tsinghua University
Xiaojin Huang - Tsinghua University

Evaluation of Serpent Capabilities for Hyperfidelity Depletion of Pebble Bed Cores
Technical Paper Publication: ICONE28-65810
Yves Robert - University of California, Berkeley
Massimiliano Fratoni - University of California, Berkeley

Preliminary Transient Analysis for LBE-Cooled Fast Reactor BLESS-D
Technical Paper Publication: ICONE28-63220
Mian Xing - State Power Investment Corporation Research Institute
Linsen Li - State Power Invest Corporation Research Institute
Gang Zheng - State Power Invest Corporation Research Institute
Junlang Wen - Sun Yat-Sen University
Chunyuan Liu - State Power Invest Corporation Research Institute
Yeoh Eing Yee - State Power Invest Corporation Research Institute
Zhen Luo - State Power Invest Corporation Research Institute
Peidong Sun - State Power Invest Corporation Research Institute
Jianjun Feng - Nuclear and Radiation Safety Center

07-06: Flow Behavior Studies

Session begins at 12:00PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Frequency of Plug/Slug Bubbles in Horizontal Air-Water Two-Phase Flow
Technical Paper Publication: ICONE28-63179
Ran Kong - Purdue University

Seungjin Kim - Purdue University

Study on Interaction of Pressurized Subcooled Water Injected With Thermal Glycerin
Technical Paper Publication: ICONE28-64720
Feng Mao - China Nuclear Power Technology Research Institute
Lei Zhang - China Nuclear Power Technology Research Institute
Xiangyu Yun - China Nuclear Power Technology Research Institute
Donghua Lu - China Nuclear Power Technology Research Institute
Wenxi Tian - Shaanxi Key Laboratory of Advanced Nuclear Energy and Technology
Huiyong Zhang - China Nuclear Power Technology Research Institute

Study on Influence of Rolling and Heaving Motions on Differential Pressure and Flow Rate Measurements
Technical Paper Publication: ICONE28-65755
Biao Zhang - Harbin Engineering University
Jingyu Liu - China Nuclear Power Technology Research Institute Co., Ltd.
Xin Li - Harbin Engineering University
Shouxu Qiao - Harbin Engineering University
Dongyang Li - Harbin Engineering University
Sichao Tan - Harbin Engineering University

Mixing Characteristic Measurement of Flow in Reactor Pressure Vessel by Laser Induced Fluorescent Method
Technical Paper Publication: ICONE28-65770
Mingpeng Chen - Harbin Engineering University
Guanhui Xie - Harbin Engineering University
Dongyang Li - Harbin Engineering University
Sichao Tan - Harbin Engineering University

Behavior of the Pressure Fluctuation of the Two-Phase Flow in a Subchannel
Technical Presentation Only: ICONE28-69402
Masaki Ikeda - Hitachi-GE Nuclear Energy, Ltd.
Kiyoshi Fujimoto - Hitachi-GE Nuclear Energy, Ltd.
Kenichi Katono - Hitachi-GE Nuclear Energy, Ltd.
Kenichi Yasuda - Hitachi-GE Nuclear Energy, Ltd.
Atsushi Ui - Central Research Institute of Electric Power Industry

08-03: General CFD Applications and Assessments - I

Session begins at 12:00PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Results of a LES Application to LBE Turbulent Flow in a Wire-Wrapped Single Rod Channel
Technical Paper Publication: ICONE28-64153
Andrea Pucciarelli - University of Pisa

Resistance and Thermal Stress Analysis of Miniflow Pipeline of Residual Heat Removal System in Pressurized Water Reactor
Technical Paper Publication: ICONE28-64401
Pi Yue - China Nuclear Power Engineering Co., Ltd.
Hou Ting - China Nuclear Power Engineering Co., Ltd.

Assessment and Analysis of Various Mechanisms in the Coalescence and Breakup Models for Upward Bubbly Flow
Technical Paper Publication: ICONE28-64436
Shunran Guan - Institute of Nuclear and New Energy Technology, Tsinghua University
Jinyu Han - Institute of Nuclear and New Energy Technology, Tsinghua University
Chenru Zhao - Institute of Nuclear and New Energy Technology, Tsinghua University
Hanliang Bo - Institute of Nuclear and New Energy Technology, Tsinghua University

Advances in the Development of a Fluid-to-Fluid Similarity Theory for Fluids at Supercritical Pressure: Results From Sensitivity Analyses
Technical Paper Publication: ICONE28-64713
Alessandro De Angelis - University of Pisa
Andrea Pucciarelli - University of Pisa
Walter Ambrosini - University of Pisa
Sara Kassem - University of Pisa

Extending a Fluid-to-Fluid Similarity Rationale for Heat Transfer at Supercritical Pressure to R134a
Technical Paper Publication ICONE28-64822
Sara Kassem - University of Pisa
Andrea Pucciarelli - University of Pisa
Walter Ambrosini - University of Pisa

12-06 Next Generation Reactors (1)

Session begins at 12:00PM

Chair: **Jian Deng - Nuclear Power Institute of China**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

Study on Eutectic Melting Behavior of Control Rod Materials in Core Disruptive Accidents of Sodium-Cooled Fast Reactors: Part 1 – Project Overview and Progress Until 2019
Technical Paper Publication: ICONE28-63301
Hidemasa Yamano - Japan Atomic Energy Agency
Toshihide Takai - Japan Atomic Energy Agency
Tomohiro Furukawa - Japan Atomic Energy Agency
Shin Kikuchi - Japan Atomic Energy Agency
Yuki Emura - Japan Atomic Energy Agency
Kenji Kamiyama - Japan Atomic Energy Agency
Hiroyuki Fukuyama - Tohoku University
Hideo Higashi - Tohoku University
Tsuyoshi Nishi - Ibaraki University
Hiromichi Ohta - Ibaraki University
Koji Morita - Kyushu University
Kinya Nakamura - Central Research Institute of Electric Power Industry

Study on Eutectic Melting Behavior of Control Rod Materials in Core Disruptive Accidents of Sodium-Cooled Fast Reactors: Part 2 – Kinetic Study on Eutectic Reaction Process Between Stainless Steel With Low Boron Carbide Concentration and Stainless Steel
Technical Paper Publication: ICONE28-62252
Shin Kikuchi - Japan Atomic Energy Agency
Kan Sakamoto - Nippon Nuclear Fuel Development Co., Ltd.
Toshihide Takai - Japan Atomic Energy Agency
Hidemasa Yamano - Japan Atomic Energy Agency

Fragmentation and Cooling Behavior of a Simulated Molten Core Material Discharged Into a Sodium Pool With Limited Depth and Volume
Technical Paper Publication: ICONE28-64500
Kenichi Matsuba - Japan Atomic Energy Agency
Shinya Kato - Japan Atomic Energy Agency
Kenji Kaymiyama - Japan Atomic Energy Agency
Assan Akayev - National Nuclear Center of the Republic of Kazakhstan
Viktor Baklanov - National Nuclear Center of the Republic of Kazakhstan

Development of a Passive Reactor Shutdown Device for Prevention of Core Disruptive Accidents in Fast Reactors: Project Overview and Preliminary Results
Technical Paper Publication: ICONE28-64099

Koji Morita - Kyushu University
Wei Liu - Kyushu University
Tatsumi Arima - Kyushu University
Yuji Arita - University of Fukui
Koharu Kawase - University of Fukui
Isamu Sato - Tokyo City University
Haruaki Matsuura - Tokyo City University
Yoshihiro Sekio - Japan Atomic Energy Agency
Hiroshi Sagara - Tokyo Institute of Technology
Masatoshi Kawashima - Tokyo Institute of Technology

Dropping-Rod Analysis of Control Rod in ADS Lead-Bismuth Alloy Zero-Power Reactor
Technical Paper Publication: ICONE28-64082
Hui Fu - North China Electric Power University
Daogang Lu - North China Electric Power University
Yu Liu - North China Electric Power University

13-01: Risk Informed Management and Regulation

Session begins at 12:00PM

Chair: **Zhegang Ma - Idaho National Laboratory**
Chair: **Hidemasa Yamano - Japan Atomic Energy Agency**
Chair: **Pandey Mahesh - University of Waterloo**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **David Louie - Sandia National Laboratories**
Chair: **Alessandro Petruzzi - Nuclear and Industrial Engineering**
Chair: **Dmitry Grishchenko - KTH**
Chair: **Scott Sanborn - Sandia National Laboratories**
Chair: **Kazuyuki Demachi - N/A**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Arun Veeramany - Pacific Northwest National Laboratory**
Chair: **Anton Prins - Risk Management and Consultancy**
Chair: **Arnold Yuan - Ryerson University**
Chair: **Ivan Vrbanic - APoSS d.o.o.**
Chair: **Jaroslav Holy - UJV**
Chair: **Koji Shirai - Central Research Institute of Electric Power Industry**
Chair: **Akio Gofuku - N/A**
Chair: **Patrick Frias - U.S. Department of Energy**
Chair: **Louis Restrepo - Boston Government Services, LLC**
Chair: **Qinfang Zhang - Shanghai Nuclear Engineering Research & Design Institute**
Chair: **Deng Wei - China Nuclear Power Engineering Co., Ltd.**

Level 2 Probability Risk Assessment for External Events: Approach and Application for NPPs in China
Technical Paper Publication: ICONE28-64329
Yu Liu - China Nuclear Power Engineering
Cong Wang - China Nuclear Power Engineering
Jing Liu - China Nuclear Power Engineering
Heng Gao - China Nuclear Power Engineering

Application of Probabilistic Safety Analysis for Nuclear Power Plant Overhaul Risk Assessment
Technical Paper Publication: ICONE28-64332

Deyi Liu - CNNP
Yong Cao - CNNP
Ming Zhao - CNNP
Shengjia Zou - CNNP
Yang Luo - CNNP
Mingying Hu - CNNP
Ling Zhao - Nuclear Power Operations Research Institute
Jie Xu - CNNP
Zilong Wang - CNNP
Li Wang - CNNP

Probabilistic Safety Assessment on Unavailability of Auxiliary External Power Supply in Fangjiashan Nuclear Power Plant
Technical Paper Publication: ICONE28-64590
Shengjia Zou - CNNP
Ming Zhao - CNNP
Deyi Liu - CNNP
Yang Luo - CNNP
Wang Li - CNNP
Jianguo Zhang - CNNP
Honghao Chen - CNNP
Naiyuan Zhang - Haiyan Ecological Environment Bureau

PSA Analysis of Switch Port Disabled on DCS Layer 1
Technical Paper Publication: ICONE28-64597
Yang Luo - Qinshan Nuclear Power
Deyi Liu - CNNP
Yong Cao - CNNP
Shengjia Zou - CNNP

Research on Internal Fire Ignition Frequency of Fire Probability Safety Analysis in Small Module Reactor
Technical Paper Publication: ICONE28-65152
Yanzhu Chen - SNPI
Zhichao Yang - Suzhou Nuclear Power Research Institute

14-06 Student Paper Competition

Session begins at 12:00PM

Chair: **Wolfgang Hansen - Technische Universität Dresden**
Chair: **Shripad Revankar - Purdue University**

Research on the Diagnosis Model of Break Diameter During the Blowdown Process of SBLOCA
Technical Paper Publication: ICONE28-64215
Bingzheng Ke - Harbin Engineering University
Puzhen Gao - Harbin Engineering University
Kun Cheng - Nuclear Power Institute of China
Bo Wang - Harbin Engineering University
Jiming Wen - Harbin Engineering University
Bowen Chen - Harbin Engineering University
Ruifeng Tian - Harbin Engineering University
Lingyan Wu - Nuclear Power Institute of China

Implementation and Validation of an Improved Interfacial Area Concentration Model for Two-Phase Flow CFD Simulations
Technical Paper Publication: ICONE28-64342
Xiang Zhang - Harbin Engineering University
Minjun Peng - Harbin Engineering University
Tenglong Cong - Shanghai Jiao Tong University
Chuan Lu - Nuclear Power Institute of China
Chenyang Wang - Nuclear Power Institute of China

Review of the Configuration Risk Management Methodologies
Technical Paper Publication: ICONE28-64281
Yuhang Zhang - Harbin Engineering University
Zhijian Zhang - Harbin Engineering University
He Wang - Harbin Engineering University
Lixuan Zhang - Harbin Engineering University
Dabin Sun - Harbin Engineering University

Key Parameters Determination of Integral-Plate Cruciform Control Rod
Technical Paper Publication: ICONE28-64220
Hao Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Songyang Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Dingqu Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Yueyuan Jiang - Institute of Nuclear and New Energy Technology, Tsinghua University
Wentao Hao - Institute of Nuclear and New Energy Technology, Tsinghua University
Wei Xiong - Institute of Nuclear and New Energy Technology, Tsinghua University
Jizhong Ma - Chinergy Co. Ltd.

Dynamic Modeling of Nuclear Hydrogen Production Using Methane Steam Reforming
Technical Paper Publication: ICONE28-64344
Junyi Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Zhe Dong - Institute of Nuclear and New Energy Technology, Tsinghua University
Bowen Li - Institute of Nuclear and New Energy Technology, Tsinghua University

Analysis of Friction Factor of Two-Phase Flow in Helically Coiled Tubes
Technical Paper Publication: ICONE28-64356
Baihui Jiang - Tsinghua University
Zhiwei Zhou - Tsinghua University
Yu Ji - Tsinghua University

14-13 Student Paper Competition

Session begins at 12:00PM

Chair: **Liangming Pan - Chongqing University**
Chair: **Shripad Revankar - Purdue University**

Heat Transfer and Fluid Flow Characteristic of U-Shaped Flow Channel for Applications of VHTR
Technical Paper Publication: ICONE28-64552
Yasuaki Takayama - University of Yamanashi
Tetsuaki Takeda - University of Yamanashi

Low Dose Assessment Uncertainty Analysis for the Landauer® Nanodot OSLDs
Technical Paper Publication: ICONE28-65591
Egemen Aras - NC State University
Robert Hayes - NC State University

Simulation of Steam Generator Tube Rupture Accident in Pressurized Water Reactors Using PCTRAN

Technical Paper Publication: ICONE28-65663
Suubi Racheal - Harbin Engineering University
Yongkuo Liu - Harbin Engineering University
Abiodun Ayodeji - Zhejiang University
Miyombo Ernest Miyombo - Harbin Engineering University

Study on Laminar Turbulent Transition in Square Arrayed Rod Bundles
Technical Paper Publication: ICONE28-65706
Carolina da Silva Bourdot Dutra - Pennsylvania State University
Elia Merzari - Pennsylvania State University

Study on Flow Characteristics of Double Loop Natural Circulation System Under Asymmetric Conditions
Technical Paper Publication: ICONE28-65682
Shuang Wang - Harbin Engineering University
Xin Li - Harbin Engineering University
Yongchao Liu - Harbin Engineering University
Sichao Tan - Harbin Engineering University
Shouxu Qiao - Harbin Engineering University

02-07: Control Engineering

Session begins at 1:45PM

Chair: **Mauro Cappelli - ENEA**
Chair: **Leon Cizelj - Jozef Stefan Institute**
Chair: **Miltos Alamaniotis - The University of Texas at San Antonio**

Research on Nuclear Turbine Control and Protection System Based on DCS Integrated Technical Solution
Technical Paper Publication: ICONE28-64191
Shi Guilian - China Techenergy Co. Ltd.
Wang Jikun - China Techenergy Co. Ltd.
Gao Jingbin - China Techenergy Co. Ltd.

Analysis of Flow Resistance Influence on Step-Down Process of the Control Rod Hydraulic Drive System
Technical Paper Publication: ICONE28-64227
Linqing Yang - Tsinghua University
Benke Qin - Tsinghua University
Hanliang Bo - Tsinghua University

Design and Analysis of a Reliable Communication System in Nuclear Safety Instrument and Control System
Technical Paper Publication: ICONE28-64398
Le Li - China Techenergy Co., Ltd.
Zhihui Zhang - China Techenergy Co., Ltd.
Chao Gao - China Techenergy Co., Ltd.
Guangqiang Ma - China Techenergy Co., Ltd.
Fei Zhou - China Techenergy Co., Ltd.

Research on Electric and I&C Equipment Safety Function Classification of Nuclear Power Plant
Technical Paper Publication: ICONE28-64446
Yuqi Wang - China Nuclear Power Engineering Co., Ltd.
Qian Sun - CNPE

Research on Start-Up Design of Nuclear Safety Level Parallel Redundant Control Station
Technical Paper Publication: ICONE28-64714
Guilian Shi - China Techenergy Co., Ltd.
Yunxu Shou - China Techenergy Co., Ltd.
Li Gang - China Techenergy Co., Ltd.

04-04 Thermal Hydraulic Design Considerations

Session begins at 1:45PM

Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Robert Stakenborghs - Advanced Clean Energy Consulting**

Application of EEMD-Multiscale Entropy Algorithm in the Signal Analysis of Narrow Channel Two-Phase Flow Under Rolling Motion
Technical Paper Publication: ICONE28-62494

Wenjun Chu - Tsinghua University
Yang Liu - Institute of Nuclear and New Energy Technology, Tsinghua University
Liqiang Pan - Institute of Nuclear and New Energy Technology, Tsinghua University
Hongye Zhu - Institute of Nuclear and New Energy Technology
Xingtuan Yang - Institute of Nuclear and New Energy Technology, Tsinghua University

A Finnish District Heating Reactor: Thermal-Hydraulic Design and Transient Analyses
Technical Paper Publication: ICONE28-64163

Rebekka Komu - VTT Technical Research Centre of Finland, Ltd.
Seppo Hillberg - VTT Technical Research Centre of Finland, Ltd.
Ville Hovi - VTT Technical Research Centre of Finland, Ltd.
Jaakko Leppänen - VTT Technical Research Centre of Finland, Ltd.
Joona Leskinen - VTT Technical Research Centre of Finland, Ltd.

Thermal Hydraulics Analysis of a High-Performance Once-Through Steam Generator With Annular Narrow Slot Tube
Technical Paper Publication: ICONE28-64168

Jinyu Han - Institute of Nuclear and New Energy Technology, Tsinghua University
Shunran Guan - Institute of Nuclear and New Energy Technology, Tsinghua University
Wen He - Institute of Nuclear and New Energy Technology, Tsinghua University
Chenru Zhao - Institute of Nuclear and New Energy Technology, Tsinghua University
Hanliang Bo - Institute of Nuclear and New Energy Technology, Tsinghua University

A Finnish District Heating Reactor: Background and General Overview
Technical Paper Publication: ICONE28-64346

Jaakko Leppänen - VTT Technical Research Centre of Finland, Ltd.
Seppo Hillberg - VTT Technical Research Centre of Finland, Ltd.
Ville Hovi - VTT Technical Research Centre of Finland, Ltd.
Rebekka Komu - VTT Technical Research Centre of Finland, Ltd.
Joona Kurki - VTT Technical Research Centre of Finland, Ltd.
Unna Lauranto - VTT Technical Research Centre of Finland, Ltd.
Ahti Oinonen - VTT Technical Research Centre of Finland, Ltd.
Jussi Peltonen - VTT Technical Research Centre of Finland, Ltd.
Antti Rintala - VTT Technical Research Centre of Finland, Ltd.
Ville Tulkki - VTT Technical Research Centre of Finland, Ltd.
Riku Tuominen - VTT Technical Research Centre of Finland, Ltd.
Ville Valtavirta - VTT Technical Research Centre of Finland, Ltd.

A Finnish District Heating Reactor: Neutronics Design and Fuel Cycle Simulations
Technical Paper Publication: ICONE28-64347

Jaakko Leppänen - VTT Technical Research Centre of Finland, Ltd.
Ville Valtavirta - VTT Technical Research Centre of Finland, Ltd.
Riku Tuominen - VTT Technical Research Centre of Finland, Ltd.
Antti Rintala - VTT Technical Research Centre of Finland, Ltd.
Unna Lauranto - VTT Technical Research Centre of Finland, Ltd.

Heat Transfer Analysis of a Conceptual Horizontally-Oriented High Temperature Gas-Cooled Reactor
Technical Paper Publication: ICONE28-65828

Jinyong Feng - Massachusetts Institute of Technology
Emilio Baglietto - Massachusetts Institute of Technology
William R. Stewart - Massachusetts Institute of Technology
Enrique V. Lopez - Massachusetts Institute of Technology
Ralph Wiser - Massachusetts Institute of Technology
Koroush Shirvan - Massachusetts Institute of Technology

07-07: Accident Evaluations and Mitigations

Session begins at 1:45PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

The Evaluation of Break Sizes of LOCA by Temperature Difference at the Recirculation Inlets of BWR
Technical Paper Publication: ICONE28-65413
Sheng-Dih Hwang - Institute of Nuclear Energy Research

Applicability Assessment of Accident Analysis Codes and Determination of Testing Facility for Validation of the CAP1400
Technical Paper Publication: ICONE28-66257
Xiaoyu Cai - Shanghai Nuclear Engineering and Design Institute
Guobao Shi - Shanghai Nuclear Engineering and Design Institute
Jinquan Yan - Shanghai Nuclear Engineering and Design Institute
Pu Fan - Shanghai Nuclear Engineering and Design Institute
Dongjian Zhao - Shanghai Nuclear Engineering and Design Institute

RELAP5 Code Analyses of PKL-4 Project Test on PWR Multiple Steam Generator Tube Rupture Accident With Recovery Actions
Technical Paper Publication: ICONE28-64117
Masashi Sekine - NRA
Junichi Kaneko - NRA
Takeshi Takeda - JAEA

08-04: General CFD Applications and Assessments - II

Session begins at 1:45PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

A Preliminary Evaluation of the Computational Fluid Dynamics Capabilities in MOOSE
Technical Paper Publication: ICONE28-64908
Abdullah Weiss - Texas A&M University
M. Gomaa Abdoelatef - Texas A&M University
Mohammad T.H. Bani Ahmad - Texas A&M University
Karim Ahmed - Texas A&M University
Mark L. Kimber - Texas A&M University

Tritium Transport Modeling and Analysis for HCCB Blanket of CFETR
Technical Paper Publication: ICONE28-65076
Baorui Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Zhaoyang Xia - Institute of Nuclear and New Energy Technology, Tsinghua University
Zhiwei Zhou - Institute of Nuclear and New Energy Technology, Tsinghua University

Investigation of Applicability of Subchannel Analysis Code ASFRE on Thermal Hydraulics Analysis in Fuel Assembly With Inner Duct Structure in Sodium Cooled Fast Reactor
Technical Paper Publication: ICONE28-65662
Norihiro Kikuchi - Japan Atomic Energy Agency

Yasutomo Imai - NDD Corporation
Ryuji Yoshikawa - Japan Atomic Energy Agency
Norihiro Doda - Japan Atomic Energy Agency
Masaaki Tanaka - Japan Atomic Energy Agency

Migration Characteristics of Aerosol Particles in Reactor Compartment Under Break Accident
Technical Paper Publication: ICONE28-64606
Peng Xu - Harbin Engineering University
Ruifeng Tian - Harbin Engineering University

12-07 Next Generation Reactors (2)

Session begins at 1:45PM

Chair: **Jian Deng - Nuclear Power Institute of China**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

Analysis and Research on Sodium Single Droplet Combustion
Technical Paper Publication: ICONE28-64402
Lei Zhao - CIAE

Investigation on Thermal Stability of Sintered Magnesia in Sodium for Core Catcher Application in SFRs
Technical Paper Publication: ICONE28-65785
Prabhat Kumar Shukla - Indira Gandhi Centre for Atomic Research
Hemanth Rao E. - Indira Gandhi Centre for Atomic Research
Muthuganesh M. - Indira Gandhi Centre for Atomic Research
Vetrivendan Elumalai - Indira Gandhi Centre for Atomic Research
S.R. Polaki - Indira Gandhi Centre for Atomic Research
Sanjay Kumar Das - Indira Gandhi Centre for Atomic Research
Pramod Kumar Chaurasia - Indira Gandhi Centre for Atomic Research
Ningshen S. - Indira Gandhi Centre for Atomic Research
Ponraju Durairaj - Indira Gandhi Centre for Atomic Research
Athmalingam S. - Indira Gandhi Centre for Atomic Research
Venkatraman B. - Indira Gandhi Centre for Atomic Research

Analytical Study on Removal Mechanisms of Cesium Aerosol From a Noble Gas Bubble Rising Through Liquid Sodium Pool (II) Effects of Particle Size Distribution and Agglomeration in Aerosols
Technical Paper Publication: ICONE28-63286
Shinya Miyahara - University of Fukui, Research Institute of Nuclear Engineering
Munemichi Kawaguchi - University of Fukui, Research Institute of Nuclear Engineering
Hiroshi Seino - Japan Atomic Energy Agency, Oarai Research and Development Institute
Takuto Atsumi - University of Fukui, Research Institute of Nuclear Engineering
Masayoshi Uno - University of Fukui, Research Institute of Nuclear Engineering

Experimental Study on Aerosol Transport Behavior in Multiple Cells With Expandable Connecting Pipe for Safety Assessment of Sodium-Cooled Fast Reactors
Technical Paper Publication ICONE28-61200
Ryota Umeda - Japan Atomic Energy Agency
Toshiki Kondo - Japan Atomic Energy Agency
Shin Kikuchi - Japan Atomic Energy Agency
Akikazu Kurihara - Japan Atomic Energy Agency

13-02: Risk-Informed Management and Regulation

Session begins at 1:45PM

Chair: **Sai Zhang - Idaho National Laboratory**
Chair: **Arun Veeramany - Pacific Northwest National Laboratory**

Configuration Risk Management Support for the Maintenance Rules at Qinshan NPP1
Technical Paper Publication: ICONE28-64543
- Li Wang - CNNP Nuclear Power Operations Management Co., Ltd.
- Zilong Wang - CNNP Nuclear Power Operations Management Co., Ltd.
- Deyi Liu - CNNP Nuclear Power Operations Management Co., Ltd.
- Jie Xu - CNNP Nuclear Power Operations Management Co., Ltd.
- Jianzhang Zhou - CNNP Nuclear Power Operations Management Co., Ltd.
- Shengjia Zou - CNNP Nuclear Power Operations Management Co., Ltd.

Study on the Off-Site Consequence Evaluation of NPP Severe Accident Based on JRODOS Platform
Technical Paper Publication: ICONE28-66056
- Xuan Wang - Shanghai Nuclear Engineering Research and Design Institute Co., Ltd.
- Li Guo - National Nuclear Emergency Response Technical Support Center, National Defense Science and Industry
- Xiujing Lin - National Nuclear Emergency Response Technical Support Center, National Defense Science and Industry
- Fenglei Du - Shanghai Nuclear Engineering Research & Design Institute Co., Ltd.
- Xiang Pu - Shanghai Nuclear Engineering Research & Design Institute Co., Ltd.
- Xiaodong Huang - Shanghai Nuclear Engineering Research and Design Institute Co., Ltd.
- Xiaowei Xiong - Nuclear and Radiation Safety Center of Ministry of Ecology and Environment
- Bo Wang - Nuclear and Radiation Safety Center of Ministry of Ecology and Environment

Periodic Test Period Extension for Partial Closing of Main Steam Isolation Valve
Technical Paper Publication: ICONE28-64413
- Deyi Liu - CNNP
- Yong Cao - CNNP
- Ming Zhao - CNNP
- Zilong Wang - CNNP
- Yang Luo - CNNP
- Shengjia Zou - CNNP
- Mengying Hu - CNNP
- Jie Xu - CNNP

The Safety Analysis of the Design of the Reactor Coolant Pump Heat Shield in Qinshan Nuclear Power Plant
Technical Paper Publication: ICONE28-64423
- Zilong Wang - China National Nuclear Power Co., Ltd.
- Deyi Liu - China National Nuclear Power Co., Ltd.
- Ming Zhao - China National Nuclear Power Co., Ltd.
- Li Wang - CNNP
- Jie Xu - CNNP

Chinese People May Have a Different Perception of Severe Nuclear Accidents
Technical Paper Publication: ICONE28-65349
- Hsingtzu Wu - Huazhong University of Science and Technology
- Leyao Huang - Huazhong University of Science and Technology

Development of Best Estimate Plus Uncertainty (BEPU) Application for RELAP5-3D
Technical Presentation Only: ICONE28-65388
Yong-Joon Choi - Idaho National Laboratory
Carlo Parisi - Idaho National Laboratory

14-07 Student Paper Competition

Session begins at 1:45PM

Chair: **Vladimir Stevanovic - University of Belgrade**
Chair: **Shripad Revankar - Purdue University**

System Design for Ammonia Nuclear Thermal Propulsion
Technical Paper Publication: ICONE28-64359
Chenrui Mao - Tsinghua University
Yu Ji - Tsinghua University
Jun Sun - Tsinghua University
Zhaoyu Liang - Tsinghua University
Lei Shi - Tsinghua University

Security Analysis Based on Probabilistic Safety Analysis Coupled With Deterministic Safety Analysis Used Raven
Technical Paper Publication: ICONE28-64361
Dabin Sun - Harbin Engineering University
Zhijian Zhang - Harbin Engineering University
Lei Li - Harbin Engineering University
Sijuan Chen - Harbin Engineering University
He Wang - Harbin Engineering University
Yuhang Zhang - Harbin Engineering University
Lixuan Zhang - Harbin Engineering University

Production of Cyclotron-Based Gallium-68 With Low Energy Protons: Preliminary Target Design and Shielding Considerations Cyclotron
Technical Paper Publication: ICONE28-65064
Luis Fernando Salas Tapia - Harbin Engineering University
Tian Zhang - Harbin Engineering University

Droplet Entrainment Phenomena Affected by Interfacial Behavior of a High-Speed Gas Jet Into a Liquid Pool
Technical Presentation Only: ICONE28-62342
Masafumi Saito - University of Tsukuba
Akiko Kaneko - University of Tsukuba
Yutaka Abe - University of Tsukuba
Akihiro Uchibori - Japan Atomic Energy Agency
Akikazu Kurihara - Japan Atomic Energy Agency
Takashi Takata - Japan Atomic Energy Agency
Hiroyuki Ohshima - Japan Atomic Energy Agency

An Operational Mcnp Gui
Technical Presentation Only: ICONE28-65781
Radoslaw Pudelko - North Carolina State University
Samuel Hanson - North Carolina State University
Robert Hayes - North Carolina State University

14-14 Student Paper Competition

Session begins at 1:45PM

Chair: **Liangming Pan - Chongqing University**
Chair: **Shripad Revankar - Purdue University**

A Study on Radiation Imaging Mechanism and Characteristics in Different Inspection Systems
Technical Paper Publication: ICONE28-66127
Yuting Xu - Institute of Nuclear and New Energy Technology, Tsinghua University; Chinese Academy of Customs Administration
Zhifang Wu - Institute of Nuclear and New Energy Technology, Tsinghua University
Qiang Wang - Yanshan University

Study on Collapsed Cross Section for Radial Reflector in LWR
Technical Paper Publication: ICONE28-65686
Ryosuke Shibano - Osaka University
Tatsuya Kawano - Osaka University
Satoshi Takeda - Osaka University
Takanori Kitada - Osaka University
Yoshitada Masaoka - Nuclear Fuel Industries
Hiroaki Nagano - Nuclear Fuel Industries
Yasuhiro Kodama - Nuclear Fuel Industries
Hideaki Hyoudo - Nuclear Fuel Industries

Heat Transfer Performance for Helium Gas Flowing in a Minichannel With Different Inner Diameters
Technical Paper Publication: ICONE28-65691
Feng Xu - Kobe University
Qiusheng Liu - Kobe University
Makoto Shibahara - Kobe University

Pipe Performance in Long Term Operation Framework: Ageing Issues
Technical Paper Publication: ICONE28-65931
Salvatore Angelo Cancemi - University of Pisa
Rosa Lo Frano - University of Pisa

Characteristics of Two-Phase Flow in Packed Bed Systems
Technical Paper Publication: ICONE28-64955
Noriaki Yasugi - Kyoto University
Akito Fujitsu - Kyoto University
Naoya Odaira - Kyoto University
Daisuke Ito - Kyoto University
Kei Ito - Kyoto University
Yasushi Saito - Kyoto University

U.S. Nuclear Power Plant Performance Assessment Using the Versatile_x000B_Economic Risk Tool (VERT)
Technical Paper Publication: ICONE28-65769
Jaden Miller - Idaho State University
Spencer Ercanbrack - Idaho State University
Chad Pope - Idaho State University

02-08: Balance of Plant

Session begins at 3:15PM

Chair: **Leon Cizelj - Jozef Stefan Institute**

100-Gigawatt-Hour Crushed-Rock Heat Storage for Variable Electricity and Heat With Base-Load Reactor Operations
Technical Paper Publication: ICONE28-64632
Charles Forsberg - Massachusetts Institute of Technology

Nuclear Air-Brayton Combined Cycles Using Electrically-Heated Conductive Firebrick Heat Storage and Hydrogen for Peak Power
Technical Paper Publication: ICONE28-64638
Charles Forsberg - Massachusetts Institute of Technology
Daniel Stack - Massachusetts Institute of Technology
Patrick McDaniel - University of New Mexico

Research on Multi-Objective Optimal Design of Plate Heat Exchanger in Nuclear Power Plant Cold Chain System
Technical Paper Publication: ICONE28-64427
Weiguang Zhao - Harbin Engineering University
Jiangwu Shi - Harbin Engineering University
Xiuan Zhou - Harbin Engineering University
Changqi Yan - Harbin Engineering University
Jianjun Wang - Harbin Engineering University

Conceptual Design of Nuclear Wet Steam Turbines for Ease of Mass Manufacture
Technical Paper Publication: ICONE28-64473
Edmund Ireland - University of Manchester

05-03 Fuel Failure

Session begins at 3:15PM

Chair: **Hakan Ozaltun - Idaho National Laboratory**
Chair: **Paul K. Chan - Royal Military College of Canada**
Chair: **Justin Spencer - Canadian Nuclear Laboratories**
Chair: **Daisuke Sato - N/A**
Chair: **Yoshihiro Isobe - Nuclear Fuel Industries Ltd.**
Chair: **TAKASHI Shimomura - Mitsubishi Nuclear Fuel Co., Ltd.**
Chair: **Satoshi Takeda - Osaka University**
Chair: **Liangzhi Cao - Xi'an Jiaotong University**
Chair: **Min Xiao - China Nuclear Power Technology Research Institute/Cgn**
Chair: **Zafar Koreshi - Air University, Islamabad**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**

Evaluation of Interface Stresses and Cladding-Cladding Delamination Failures in U-Mo Fuel Plates
Technical Paper Publication: ICONE28-65840
Hakan Ozaltun - Idaho National Laboratory

Flow Induced Vibration and Fretting Wear Characteristics of Fuel Rods
Technical Paper Publication: ICONE28-62135
Zhipeng Feng - Nuclear Power Institute of China
Huanhuan Qi - Nuclear Power Institute of China
Xuan Huang - Nuclear Power Institute of China
Guo Chen - Nuclear Power Institute of China

Shuai Liu - Nuclear Power Institute of China
Yixiong Zhang - Nuclear Power Institute of China

Sensitivity Study on TRISO Fuel Failure Probability Evaluation for HTGR
Technical Paper Publication: ICONE28-64154
Jian Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Ding She - Institute of Nuclear and New Energy Technology, Tsinghua University
Lei Shi - Institute of Nuclear and New Energy Technology, Tsinghua University

Further Study on Real-Time Positioning of Fuel Failures Method in HFETR
Technical Paper Publication: ICONE28-64210
Sun Shouhua - Institute for Advanced Study, Chengdu University
Jian Li - Tsinghua University

Experimental Study on Flow Blockage Accidents in a Narrow Rectangular Channel
Technical Paper Publication: ICONE28-64684
Dongdong Yuan - Harbin Engineering University
Weian Du - China Ship Development and Design Centre
Yuhao He - Harbin Engineering University
Jiahong Zhu - Harbin Engineering University
Yonghao Zhang - Harbin Engineering University
Chengwei Li - Harbin Engineering University
Sichao Tan - Harbin Engineering University
Dongyang Li - Harbin Engineering University

Levelized Cost of Electricity Evaluation Methodology Applied to High-Burnup 18 and 24-Month Fuel Cycle
Technical Paper Publication: ICONE28-66589
David Stucker - Westinghouse Electric Company LLC
Jeff Norrell - Westinghouse Electric Company LLC
Ho Lam - Westinghouse Electric Company LLC
Fausto Franceschini - Westinghouse Electric Company LLC

07-08: Thermal-Hydraulics General Studies and Analyses - I

Session begins at 3:15PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Subchannel Analysis of Radial Uniform and Non-Uniform Heating Assembly Under Low Mass Flow Rate Conditions
Technical Paper Publication: ICONE28-63636
Gan Zhu - Institute of Nuclear and New Energy Technology
Heng Xie - Institute of Nuclear and New Energy Technology
Wei Xu - Institute of Nuclear and New Energy Technology

Eigenvalue Analysis of Well-Posedness of Two-Fluid Single Pressure Model With Virtual Mass Force and Interfacial Pressure
Technical Paper Publication: ICONE28-64434
Fei Chao - Wuhan Second Ship Design and Research Institute
Wen Yang - Wuhan Second Ship Design and Research Institute
Longze Li - Wuhan Second Ship Design and Research Institute
Jinrong Qiu - Wuhan Second Ship Design and Research Institute
Jianqiang Shan – Xi'an Jiaotong University

Benchmark Study of RBHT Experiment for the Effect of Spacer Grids on Reflood Heat Transfer With LOCUST Code
Technical Paper Publication: ICONE28-64465
Qiang Du - Chongqing University
Qinglong Wen - Chongqing University
Shenhui Ruan - Chongqing University
Hongsheng Yuan - China Nuclear Power Technology Research Institute Co., Ltd.

Ting Wang - China Nuclear Power Technology Research Institute Co., Ltd.

Study on Flow Boiling of Refrigerants in Micro/Mini-Channels
Technical Paper Publication: ICONE28-65417
Wen He - Tsinghua University
Chenru Zhao - Tsinghua University
Hanliang Bo - Tsinghua University

General Discussion on Terminal Velocity for Rising Single Bubble
Technical Paper Publication: ICONE28-64697
Qinghua Wang - Kyoto University
Takehiko Yokomine - Kyoto University
Zensaku Kawara - Kyoto University
Tomoaki Kunugi - Zhejiang University

09-01: Verification and Validation - I

Session begins at 3:15PM

Chair: **Richard Schultz - Consultant**
Chair: **Y.A. Hassan - Professor, Texas A&M**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Alessandro Petruzzi - Nuclear and Industrial Engineering**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Joshua Kaizer - U.S. Nuclear Regulatory Commission**
Chair: **Sam Treasure - Rolls-Royce**
Chair: **Masaaki Tanaka - Japan Atomic Energy Agency**
Chair: **Kotaro Nakada - Toshiba Energy Systems & Solutions Corporation**
Chair: **Milorad Dzodzo - Westinghouse Electric Company**
Chair: **Hui Yu - State Power Investment Corporation Research Institute**
Chair: **Yanhua Yang - Shanghai Jiao Tong University**

Validation of Evaluation Method of Feedback Reactivity for Plant Dynamics Analysis Code During Unprotected Loss of Heat Sink Event in Sodium-Cooled Fast Reactors
Technical Paper Publication: ICONE28-62354
Kazuo Yoshimura - Japan Atomic Energy Agency
Norihiro Doda - Japan Atomic Energy Agency
Kennichi Igawa - NESI Corporation
Masaaki Tanaka - Japan Atomic Energy Agency
Hidemasa Yamano - Japan Atomic Energy Agency

Experiment on Vortex Shedding in Water Medium of Three-Way Closed Branch Pipe
Technical Paper Publication: ICONE28-64450
Shuai Liu - Nuclear Power Institute of China
Xuan Huang - Nuclear Power Institute of China
Zhipeng Feng - Nulear Power Institute of China
Xiaozhou Jiang - Nulear Power Institute of China
Bihao Wang - Nulear Power Institute of China

Application of Finite Difference Jacobian Based Newton-Krylov Method for Coupled Neutronics Conduction Problems of Nuclear Reactor
Technical Paper Publication: ICONE28-64622

Baokun Liu - Tsinghua University
Yingjie Wu - Tsinghua University
Han Zhang - Tsinghua University
Jiong Guo - Tsinghua University
Fu Li - Tsinghua University

Verification of PWR-Core Analysis Code CORAL Using VERA Core Physics Benchmark
Technical Paper Publication: ICONE28-64721
Wen Yang - Wuhan Second Ship Design and Research Institute
Fei Chao - Wuhan Second Ship Design and Research Institute
Jinrong Qiu - Wuhan Second Ship Design and Research Institute
Xing Li - Wuhan Second Ship Design and Research Institute
Baolin Liu - Wuhan Second Ship Design and Research Institute

Preliminary Verification Calculation and Sensitivity Analysis on PISAA Code Compared to MELCOR
Technical Paper Publication: ICONE28-64749
Mingqiang Song - Nuclear and Radiation Safety Center
Ningna Zhang - China Nuclear Power Engineering Co., Ltd.
Xiaoming Yang - China Nuclear Power Engineering Co., Ltd.
Rubing Ma - China Nuclear Power Engineering Co., Ltd.
Zhiyi Yang - Nuclear and Radiation Safety Center
Chao Ding - Nuclear and Radiation Safety Center

12-08 Accident Management and Safety Analyses

Session begins at 3:15PM

Chair: **Tadashi Watanabe - University of Fukui**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

The Development of the NPP Nuclear Emergency Drilling Assistant System
Technical Paper Publication: ICONE28-63630
Chen Yanfang - The Second Ship Design Institute
Hou Xueyan - Wuhan Nuclear Power Operation Technology Co. Ltd.
Chao Fei - The Second Ship Design Institute
Li Longze - The Second Ship Design Institute
He Chuan - The Second Ship Design Institute
Yang Wen - The Second Ship Design Institute

The Safety of Nuclear Fuel Cycle Facilities in China After the Fukushima Accident
Technical Paper Publication: ICONE28-64258
Ji Que - Nuclear and Radiation safety center, MEE
Xiao-Wei Yang - Nuclear and Radiation Safety Center, MEE
Yun-Tao Liu - Nuclear and Radiation Safety Center, MEE
Hong Shen - Nuclear and Radiation Safety Center, MEE
Shan-Gui Zhao - Nuclear and Radiation Safety Center, MEE
Tian-Shu Liu - Nuclear and Radiation Safety Center, MEE

A Beyond Design Basis Earthquake Study of Operating Nuclear Fuel Cycle Facilities
Technical Paper Publication: ICONE28-64514
Liang Li - Beijing University of Technology; Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Guo Peng Ren - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Xiu Yun Zhu - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Rong Pan - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection

14-08 Student Paper Competition

Session begins at 3:15PM

Chair: **Vladimir Stevanovic - University of Belgrade**
Chair: **Shripad Revankar - Purdue University**

Assessment of the Interfacial Drag Models in Relap5 With Mixture Level Swell Experiment
Technical Paper Publication: ICONE28-66240
Luteng Zhang - Chongqing University
Liang-ming Pan - Chongqing University
Wangtao Xu - Chongqing University
Qing-che He - Chongqing Universtiy
Zaiyong Ma - Chongqing University
Wan Sun - Chongqing University
Wen Zhu - Chongqing University
Tao Huang - Nuclear Power Institute of China
Shuhua Ding - Nuclear Power Institute of China

Research on Remaining Useful Lifetime Prediction Methods of Main Transformer in Nuclear Power Station
Technical Paper Publication: ICONE28-64425
Zikang Li - Harbin Engineering University
Minjun Peng - Harbin Engineering University

Investigation of Steam Injector Operation Mechanism Through Flow Visualization
Technical Paper Publication: ICONE28-64443
Xin Xie - Hokkaido University
Yifei Xu - Hokkaido University
Shuichiro Miwa - Hokkaido University
Kazuhiro Sawa - Hokkaido University
Hiroto Sakashita - Hokkaido University

Numerical Simulation of Hi Thermal Decomposer in Iodine-Sulfur Cycle Process
Technical Paper Publication: ICONE28-64449
Qunxiang Gao - Institute of Nuclear and New Energy Technology
Wei Peng - Institute of Nuclear and New Energy Technology, Tsinghua University
Ping Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Laijun Wang - Institute of Nuclear and New Energy Technology, Tsinghua University
Gang Zhao - Institute of Nuclear and New Energy Technology, Tsinghua University

Linear Active Disturbance Rejection Control of Steam Bypass System for a Pressurized Water Reactor
Technical Paper Publication: ICONE28-64451
Xianshan Zhang - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University
Xinyu Wei - Xi'an Jiaotong University
Xiaolong Gou - China Nuclear Power Design Company, Ltd.
Guocheng Tan - China Nuclear Power Design Company, Ltd.
Yajie Tian - China Nuclear Power Design Company, Ltd.

Transfer Function Development and Dynamic Analysis of a Heat Pipe Cooled Reactor
Technical Paper Publication: ICONE28-64453
Songmao Pu - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University

Xinyu Wei - Xi'an Jiaotong University

14-15 Student Paper Competition

Session begins at 3:15PM

Chair: **Leon Cizelj - Jozef Stefan Institute**
Chair: **Shripad Revankar - Purdue University**

Study on Deteriorated Heat Transfer in Upward Flow of Supercritical Water in a 1-M Vertical Bare Tube
Technical Paper Publication: ICONE28-64530
Nikita Dort-Goltz - University of Ontario Institute of Technology
Igor Pioro - University of Ontario Institute of Technology
Jennifer Mckellar - University of Ontario Institute of Technology

Liquid Film Behavior of Bottoming Liquid Jet in a Shallow Pool Measured by 3D-LIF
Technical Paper Publication: ICONE28-64733
Sota Yamamura - University of Tsukuba
Hiroyuki Yoshida - Japan Atomic Energy Agency
Naoki Horiguchi - Japan Atomic Energy Agency
Akiko Kaneko - University of Tsukuba
Yutaka Abe - University of Tsukuba

Research on Pipeline Crack Detection Based on Acoustic Emission
Technical Paper Publication: ICONE28-64766
Jing Luo - Harbin Engineering University
Hang Wang - Harbin Engineering University
Minjun Peng - Harbin Engineering University

Improved Wet Scavenging Schemes for Air Dispersion Modeling of Cs-137 in the Fukushima Accident
Technical Paper Publication: ICONE28-64621
Shuhan Zhuang - Tsinghua University
Sheng Fang - Tsinghua University
Xinwen Dong - Tsinghua University

Experimental Study on Flow Pattern of 10 mm Vertical Pipe
Technical Paper Publication: ICONE28-64725
Wangtao Xu - Chongqing University
Qingche He - Chongqing University
Meiyue Yan - Chongqing University
Wen Zhu - Chongqing University
Luteng Zhang - Chongqing University
Dan Wu - Nuclear Power Institute of China
Tao Huang - Nuclear Power Institute of China
Zaiyong Ma - Chongqing University
Wan Sun - Chongqing University
Liangming Pan - Chongqing University

Vertical-Downward Two-Phase Flow Regime Identification by Probabilistic Neural Network (PNN) and Nonlinear Support Vector Machine (SVM)
Technical Paper Publication: ICONE28-65467
Wenyi Zhong - Harbin Engineering University
Shouxu Qiao - College of Nuclear Science and Technology
Sijia Hao - College of Nuclear Science and Technology
Xupeng Li - College of Nuclear Science and Technology
Sichao Tan - College of Nuclear Science and Technology

06-01: Nuclear Codes & Standards

Session begins at 4:45PM

Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Koji Yamada - Chubu Electric Power Co., Inc.**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Mathew Panicker - U.S. Nuclear Regulatory Commission**
Chair: **Yasushi Saito - N/A**
Chair: **Ruilin Dong - ISNI**
Chair: **Lin Tian - Shanghai Nuclear Engineering Research & Design Institute Co., Ltd.**

Research on Radioactive Consequence Limits for SSG-30
Technical Paper Publication: ICONE28-64663
Zhao Danni - Nuclear and Radiation Safety Centre, Ministry of Environmental Protection
Zongzhu Pang - Ministry of Environmental Protection
Ming Li - Ministry of Environmental Protection
Yu Liu - Ministry of Environmental Protection

Research on Quality Assurance of Raw Materials for Nuclear Power Equipment
Technical Paper Publication: ICONE28-64692
Pu Chenghao - Nuclear and Radiation Safety Center
Jin Gang - Nuclear and Radiation Safety Center
Yi Zilong - Nuclear and Radiation Safety Center
Huang Jiaqi - Nuclear and Radiation Safety Center
Han Dongao - Nuclear and Radiation Safety Center
Li Maolin - Nuclear and Radiation Safety Center
Wu Qi - Nuclear and Radiation Safety Center

Study on Aging Management of Operating Nuclear Power Plants in China
Technical Paper Publication: ICONE28-64761
Liang Li - Beijing University of Technology
Gui Xiang Yi - Central Research Institute of Building and Construction Co., Ltd. MCC

Development of an Integrated Design Evaluation ‘HITEP’ Platform for High-Temperature Pressure Boundary Components and Piping Systems
Technical Paper Publication: ICONE28-65552
Hyeong-Yeon Lee - Korea Atomic Energy Research Institute
Si-Hwa Jeong - Sungkyunkwan University
Min-Gu Won - National Fusion Research Institute
Nam-Su Huh - Seoul National University of Science and Technology

Enhancement Status of “Technical Guidelines for Watertight Facilities (JEAG4630)”
Technical Presentation Only: ICONE28-63212
Koji Yamada - Chubu Electric Power Co., Inc.
Isamu Nakazuka - Toshiba Energy Systems & Solutions Corp.
Yohei Komiyama - Hitachi-GE Nuclear Energy, Ltd.
Shizuo Noda - Japan Nuclear Safety Institute

07-09: Thermal-Hydraulics General Studies and Analyses - II

Session begins at 4:45PM

Chair: **Guoqiang Wang - Westinghouse Electric Co.**

Study on Water Cooler Performance for High Temperature Helium Experimental System
Technical Paper Publication: ICONE28-65596
Qingxiang Hu - Tsinghua University
Wei Peng - Tsinghua University
Gang Zhao - Tsinghua University
Jie Wang - Tsinghua University

Research on Acoustic Characteristic of Steam Injection Under Small delta-T Below Saturation
Technical Paper Publication: ICONE28-65743
Hui Li - Harbin Engineering University
Yong Li - Wuhan Second Ship Design and Research Institute
Qi Xiao - Wuhan Second Ship Design and Research Institute
Dongyang Li - Harbin Engineering University
Sichao Tan - Harbin Engineering University

Development of Ex-Vessel Debris Bed in a Flooded Cavity With Inclined Bottom Structure Under Two-Phase Condition
Technical Paper Publication: ICONE28-66235
Mayank Modak - Pohang University of Science and Technology
Hyun Sun Park - Pohang University of Science and Technology
Yu Jung Choi - Korea Hydro and Nuclear Power Co.
Mi Ro Seo - Korea Hydro and Nuclear Power Co., Ltd.

On the Study of the Version Upgrade for Integration Development Environment of the Safety Analysis Code
Technical Presentation Only: ICONE28-66435
Ilyong Yoo - Korea Hydro & Nuclear Power Co., Central Research Institute

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09-02: Verification and Validation - II

Session begins at 4:45PM

Chair: **Richard Schultz - Consultant**
Chair: **Y.A. Hassan - Professor, Texas A&M**
Chair: **Asif Arastu - Unisont Engineering, Inc.**
Chair: **Alessandro Petruzzi - Nuclear and Industrial Engineering**
Chair: **Clayton Smith - Smith Associates Consulting Group LLC**
Chair: **Joshua Kaizer - U.S. Nuclear Regulatory Commission**
Chair: **Sam Treasure - Rolls-Royce**
Chair: **Masaaki Tanaka - Japan Atomic Energy Agency**
Chair: **Kotaro Nakada - Toshiba Energy Systems & Solutions Corporation**
Chair: **Milorad Dzodzo - Westinghouse Electric Company**
Chair: **Hui Yu - State Power Investment Corporation Research Institute**
Chair: **Yanhua Yang - Shanghai Jiao Tong University**

Application of Best-Estimate Plus Uncertainty Analysis Method in Nuclear Safety Evaluation
Technical Paper Publication: ICONE28-64393
Xinlu Tian - Nuclear and Radiation Safety Center
Haiying Chen - Nuclear and Radiation Safety Center
Jingping Jing - Nuclear and Radiation Safety Center
Shaoxin Zhuang - Nuclear and Radiation Safety Center

A Small PWR-Core Physical Calculation Based on PWR-Core Analysis Code Coral
Technical Paper Publication: ICONE28-64912
Wen Yang - Wuhan Second Ship Design and Research Institute
Lun Zhou - Wuhan Second Ship Design and Research Institute
Yun Tai - Wuhan Second Ship Design and Research Institute
Jinrong Qiu - Wuhan Second Ship Design and Research Institute

Validation of Computational Fluid Dynamics Models for Industrial Applications
Technical Paper Publication: ICONE28-66712
Milorad Dzodzo - Westinghouse Electric Company

Turbulence Modeling for Developing and Fully Developed Molten-Salt (FLiNaK) Flow in a Circular Pipe
Technical Presentation Only: ICONE28-64990
Laith Zaidan - Texas A&M University
Mark Kimber - Texas A&M University

Development of Standard Software Verification and Validation Plan to Enhance Software Dependability for Digital Protection Systems
Technical Presentation Only: ICONE28-65992
Hiroshi Watanabe - MHI NS Engineering Co., Ltd.
Satoshi Watanabe - MHI NS Engineering Co., Ltd.
Makoto Takashima - MHI NS Engineering Co., Ltd.
Yuji Maruta - Mitsubishi Heavy Industries, Ltd.

12-09 Artificial Intelligence Methods and PSA

Session begins at 4:45PM

Chair: **Chiaki Kino - Japan Atomic Energy Agency**
Chair: **Ivo Kljenak - Jozef Stefan Institute**

An Optimized Dynamic Algorithm With Photon Attenuation Coefficient for_x000B_Path-Planning in Radioactive Environments
Technical Paper Publication: ICONE28-64958
Miyombo Ernest Miyombo - Harbin Engineering University
Yongkuo Liu - Harbin Engineering University
Abiodun Ayodejia - Zhejiang University

Towards Malicious Action Detection for Nuclear Security via Integrated Deep Learning Based Image Recognition and Natural Language Processing
Technical Paper Publication: ICONE28-64559
Kazuyuki Demachi - The University of Tokyo
Shi Chen - The University of Tokyo
Masaki Sudo - The University of Tokyo

A Graph-Based Scene Understanding Approach for Ensuring Proper Use of Personal Protective Equipment at the Decommissioning Site of Fukushima Daiichi Nuclear Power Station
Technical Paper Publication: ICONE28-64193
Shi Chen - The University of Tokyo
Kazuyuki Demachi - The University of Tokyo

Equal Forced Time Step Approach to PSA for a Dynamic System: A Case of the Holdup Tank
Technical Paper Publication: ICONE28-64081
Taapopi Taapopi - Harbin Engineering University
He Wang - Harbin Engineering University
Jizhi Zhou - Fujian Fuqing Nuclear Power Co. Ltd.

Study on PSA Application in VVER NPP Design Extension Condition Identification
Technical Paper Publication: ICONE28-66662
Chao Ma - CNPE
Yuan Ma - CNPE
Jinyan Du - CNPE

14-09 Student Paper Competition

Session begins at 4:45PM

Chair: **Shuichiro Miwa - Hokkaido University**
Chair: **Shripad Revankar - Purdue University**

Long-Term Simulation of Sodium Dynamics During a Large Leakage Sodium-Water Reaction
Technical Paper Publication: ICONE28-64454
Xi Bai - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University
Gang Luo - Xi'an Jiaotong University
Huasong Cao - Xi'an Jiaotong University

Study on the Dynamic Modeling of the Micro-High Temperature Gas Cooled Reactor for Control System Design
Technical Paper Publication: ICONE28-64455
Leilei Qiu - Xi'an Jiaotong University
Xinyu Wei - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University
Shengyong Liao - China Nuclear Power Engineering Co., Ltd.

Application of Bayesian Classifiers for the Accident Diagnosis in Nuclear Power Plants
Technical Paper Publication: ICONE28-64483
Ben Qi - Tsinghua University
Jingang Liang - Tsinghua University
Liguo Zhang - Tsinghua University
Jiejuan Tong - Tsinghua University
Shu Yan - Liaoning Hongyanhe Nuclear Power Co., Ltd.

All-Coefficient Adaptive Control System Design for a Space Nuclear Reactor
Technical Paper Publication: ICONE28-64459
Qian Ma - Xi'an Jiaotong University
Zhitong Yu - Shanghai Jiaotong University
Peiwei Sun - Xi'an Jiaotong University
Yuwen Jia - China Institute of Atomic Energy
Shifa Wu - Xi'an Jiaotong University

Study on the Modeling and Simulation of the Horizontal Steam Generator in VVER-1000
Technical Paper Publication: ICONE28-64456
Ru Zhang - Xi'an Jiaotong University
Junyan Qing - Nuclear Power Institute of China
Xiaolong Bi - Xi'an Jiaotong University
Guanfu Jiang - Xi'an Jiaotong University
Peiwei Sun - Xi'an Jiaotong University
Xinyu Wei - Xi'an Jiaotong University

Effect Analysis of Power Supply Topology on the Reliability of the Reactor Protection System
Technical Paper Publication: ICONE28-64646

Haojing Zhang - Institute of Nuclear and New Energy Technology, Tsinghua University
Huasheng Xiong - Institute of Nuclear and New Energy Technology, Tsinghua University
Chao Guo - Institute of Nuclear and New Energy Technology, Tsinghua University
Duo Li - Institute of Nuclear and New Energy Technology, Tsinghua University
Xiaojin Huang - Institute of Nuclear and New Energy Technology, Tsinghua University

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14-17 Student Paper Competition

Session begins at 4:45PM

Chair: **Stylianos Chatzidakis - Purdue University**
Chair: **Shripad Revankar - Purdue University**

Comparison on HAPPY200 Reactor With Different Type Fuel Assembly
Technical Paper Publication: ICONE28-65932
Canhui Sun - Southeast University; State Power Investment Corporation Research Institute
Tao Zhou - Southeast University
Yaodong Chen - State Power Investment Corporation Research Institute
Zhaocan Meng - State Power Investment Corporation Research Institute

Experimental Study of Characteristics of Flow Field in Rod Bundle Channel Under Blocking Conditions
Technical Paper Publication: ICONE28-65498
Xiaoyong Yu - Harbin Engineering University
Yonghao Zhang - Harbin Engineering University
Peiyao Qi - Xi'an Thermal Power Research Institute Co., Ltd.
Yusheng Liu - Nuclear and Radiation Safety Centre
Shouxu Qiao - Harbin Engineering University
Sichao Tan - Harbin Engineering University

Research on Optimization and Verification Method of Sensor Arrangement in the Chemical and Volume Control System
Technical Paper Publication: ICONE28-65466
Gui Zhou - Harbin Engineering University
Minjun Peng - Harbin Engineering University
Hang Wang - Harbin Engineering University

Influence of Fuel Pellets' Thermal Expansion on Temperature Feedback Regulation for Megawatt-Class Space Gas-Cooled Fast Reactor
Technical Paper Publication: ICONE28-65504
He Yuhao - Harbin Engineering University
Yuan Dongdong - Harbin Engineering University
Qiu Zhifang - Nuclear Power Institute of China
Ning Kewei - Harbin Engineering University
Wang Xiaoyu - Nuclear Power Institute of China
Fulong Zhao - Harbin Engineering University
Tan Sichao - Harbin Engineering University

Dynamic Model of the VVER-1000 Reactor for Seismic and LB LOCA Evaluation
Technical Paper Publication: ICONE28-65756
Oleksii Ishchenko - National Technical University of Ukraine, Igor Sikorsky Kyiv Polytechnic Institute
Vladislav Filonov - National Technical University of Ukraine, Igor Sikorsky Kyiv Polytechnic Institute
Yaroslav Dubyk - IPP-Centre

14-16 Student Paper Competition

Session begins at 4:45PM

Chair: **Leon Cizelj - Jozef Stefan Institute**
Chair: **Shripad Revankar - Purdue University**

Neutronic/Thermal-Hydraulic Coupling Analysis of Xi'an Pulsed Reactor Based on RMC and COBRA-TF
Technical Paper Publication: ICONE28-64623
Ruihan Li - Tsinghua University
Jingang Liang - Tsinghua University
Jianzhu Cao - Tsinghua University
Xiaoyu Guo - Tsinghua University
Xinyi Zhang - Northwest Institute of Nuclear Technology
Lipeng Wang - Northwest Institute of Nuclear Technology

Preliminary Design of a Fuel Element With Divergent Hot Gas Channel in Particle Bed Reactor for Nuclear Thermal Propulsion
Technical Paper Publication: ICONE28-64771
Zhaoyu Liang - Tsinghua University
Yu Ji - Tsinghua University
Jun Sun* - Tsinghua University
Chenrui Mao - Tsinghua University
Lei Shi - Tsinghua University

Improvement of Conversion Ratio of Thorium Fuel in LWR by Adding Neutron Absorber
Technical Paper Publication: ICONE28-65683
Taishi Takeishi - Osaka University
Satoshi Takeda - Osaka University
Takanori Kitada - Osaka University

Comparison of Pebble Bed Velocity Profiles Between High-Fidelity and Intermediate-Fidelity Codes
Technical Paper Publication: ICONE28-65759
David Reger - Penn State University
Elia Merzari - Pennsylvania State University
Paolo Balestra - Idaho National Laboratory
Sebastian Schunert - Idaho National Laboratory
Yassin Hassan - Texas A&M University

Analysis of Passive Tube Condensation With Non-Condensable Gas Using Heat and Mass Analogy Model
Technical Paper Publication: ICONE28-65829
Ugur Cotul - Purdue University
Shripad T. Revankar - Purdue University

Development of Effective Momentum Model for Steam Injection Through Multi-Hole Spargers: Unit Cell Model
Technical Paper Publication: ICONE28-65751
Xicheng Wang - Royal Institute of Technology (KTH)
Dmitry Grishchenko - Royal Institute of Technology (KTH)
Pavel Kudinov - Royal Institute of Technology (KTH)