Technical Sessions
Oct.24th

Session 24 A-1 (11:10 - 13:10)

Session Chair, Co-chair

Satoshi Kurata, Chubu Electric Power Co

Joe Miller, EDA, Inc.

TRK 1 Plant Operations, Maintenance, Engineering, Modifications, Life Cycle and Balance of Plant Expand All Sessions In Track

Track Chair: Satoshi Kurata, Chubu Electric Power Co.

Track Co-Chair: Koji Yamada, Chubu Electric Power Co.,Inc.

Track Co-Chair: Motonari Haraguchi, Hitachi Ltd.

Track Co-Chair: Joe Miller, EDA, Inc.

Track Co-Chair: Xinrong LIU, China Nuclear Power Engineering Co.,Ltd

ICONE19 - 44012

NUCLEAR POWER PLANT PERFORMANCE MONITORING USING DATA VALIDATION AND RECONCILIATION (DVR) – APPLICATION AT THE BRAZILIAN ANGRA 2 PWR PLANT

Anh Tho Tran Quang, BELSIM S.A.

ICONE19-43133

Applying the Real Options Approach on Nuclear Power Project Decision Making

Haitao Song, State Nuclear Power Engineering Corporation (China)

ICONE19-43948

DEVELOPING MAINTENANCE TECHNOLOGIES FOR FBR's HEAT EXCHANGER UNITS by ADVANCED LASER PROCESSING

Akihiko NISHIMURA, Japan Atomic Energy Agency

ICONE19-43397

Study on Comprehensive and coordination construction and operation mode of nuclear power plant to power grid

Wang Lu, GuangDong Electrical Design Institute(GEDI), China

ICONE19-43398

USING THREE-DIMENSION VIRTUAL REALITY MAIN CONTROL ROOM FOR INTEGRATED SYSTEM VALIDATION AND HUMAN RELIABILITY ANALYSIS

Chih-Wei Yang, Institute of Nuclear Energy Research, Taiwan

TRK 2 Component Reliability and Materials Issues Expand All Sessions In Track

Track Chair: Hidenori Takahashi, Toshiba
Track Co-Chair: yoshihiro isobe, nuclear fuel industries ltd.
Track Co-Chair: chiaki kato, Japan Atomic Energy Agency
Track Co-Chair: Jovica Riznic, Canadian Nuclear Safety Commission
Track Co-Chair: Guoqiang Wang, Westinghouse Electric Company LLC
Track Co-Chair: Eberhard Altstadt, Helmholtz-Zentrum Dresden-Rossendorf
Track Co-Chair: Wei Huang, Nuclear Power Insitiute of China

ICONE19-43194

EFFECT OF THERMO-MECHANICAL PROCESSING VARIABLES ON MICROSTRUCTURE, TEXTURE AND PROPERTIES OF COLD WORKED ZR-2.5NB ALLOY DURING FABRICATION OF PRESSURE TUBE FOR PHWR

Nudurupati Saibaba, Nuclear Fuel Complex, Hyderabad, India

ICONE19-43291

Development of laser peening technology for low pressure turbine blades

Itaru Chida , Toshiba Corporation

ICONE19-43201

Flaw Evaluation of Cracks in Shroud Support Welds of Tokai-2

Koji Dozaki, The Japan Atomic Power Company

ICONE19-43979

The Effect of Mechanical Loading on Residual Stress Induced by Laser Peening

Toshiyuki Tazawa, Toshiba Corporation

Session 24 A-2 (14:00 - 16:00)

Session Chair, Co-chair

Koji Yamada, Chubu Electric Power Co.,Inc.

Guoqiang Wang, Westinghouse Electric Company LLC

ICONE19-44017

INFLUENCE OF THE RESIDUAL STRESSES AND STRAINS GENERATED BY HEAT TREATMENTS ON THE HYDROGEN EMBRITTLEMENT OF A NUCLEAR REACTOR PRESSURE VESSEL

J. Toribio, Dept. of Materials Engineering, University of Salamanca,

ICONE19-43175

Simplified Evaluation Method of Strain Rate Being Generated on Structural Materials During Plant Start-up

Koji Dozaki, The Japan Atomic Power Company

ICONE19-43877

Prediction of Residual Stress Improvement by Water Jet Peening (WJP) Using Cavitating Jet and Residual Stress Simulations

Masashi Fukaya, Hitachi, Ltd

ICONE19-43221

Planning of Environmental Mitigation for Stress Corrosion Cracking of BWR Core Internals by Means of Noble Metal Chemical Addition and of Electrochemical Corrosion Potential Measurement

Yutaka Ueyama , The Japan Atomic Power Company

ICONE19-43499

Experimental Study on Diffusion of Metals in Lead-Bismuth Eutectic in A Thin Tube

Eriko Irisawa-Yamaki, Tokyo Institute of Technology

ICONE19-43141

HIGH TEMPERATURE OXIDATION OF FBR STRUCTURAL MATERIALS IN CARBON DIOXIDE AND IN AIR

Tomohiro FURUKAWA, Japan Atomic Energy Agency

ICONE19-43174

Microstructural Studies of Zr-2.5Nb and Zircaloy-2 Pressure Tubes Irradiated in Indian Pressurized Heavy Water Reactors.

Dinesh srivastava, Bhabha Atomic Research Center, Mumbai, India

ICONE19-43658

DEFECT DETECTABILITY OF EDDY CURRENT TESTING FOR UNDERWATER LASER BEAM WELDING

Souichi Ueno, Toshiba Corp

ICONE19-43166

MICROSTRUCTURAL AND POSITRON ANNIHILATION STUDIES OF HYDRIDE PHASE FORMATION IN SINGLE AND TWO PHASE ZIRCONIUM BASE ALLOYS

Dinesh Srivastava, BARC, Trombay, Mumbai

Session 24 A-3 (16:00 - 18:00)

Session Chair, Co-chair

Qiusheng Liu, Kobe University

Ernie Hauser, Cameron Measurement Systems, Caldon Ultrasonics

TRK 10 Computational Fluid Dynamics (CFD) and Coupled Codes

Track Chair: Akira Yamaguchi, Graduate shool of Engineering , Osaka University

Track Co-Chair: Hiroyuki Ohshima, JAEA

Track Co-Chair: Muftuoglu Kurshad, GE Hitachi Nuclear Energy

Track Co-Chair: Nikolay Kolev, Siemens

Track Co-Chair: Richard Johnson, Idaho National Laboratory

Track Co-Chair: Yassin Hassan, Department of Nuclear Engineering

Track Co-Chair: Liangzhi Cao, Xi'an Jiaotong University

Track Co-Chair: Ludwig Haber, Alden Research Laboratory

ICONE19-44013

ROD EJECTION ACCIDENT BY THE COUPLED SYSTEM CODE
ATHLET-QUABOX/CUBBOX

Yann Périn, GRS mbH

ICONE19-43986

Development of PIRT and Assessment Matrix for V&V of Sodium Fire Analysis Codes

Shuji Ohno, JAEA

ICONE19-43730

Numerical Investigation on Large-scale Eddy Structure in Unsteady Pipe Elbow Flow at High Reynolds Number Conditions with Large Eddy Simulation Approach

Masaaki Tanaka, JAEA

ICONE19-44127

STUDY ON TURBULENT MODELING IN GAS ENTRAINMENT EVALUATION METHOD

Kei Ito, JAEA

ICONE19-44132

SIX DIFFERENT TURBULENCE MODELS AND EXPERIMENTS COMPARISONS ON THERMAL MIXING PHENOMENON IN A TEE PIPING

Chao Jen Li, Industrial Technology Research Institute

ICONE19-43076

A CFD Study of the Flow Field and Aerodynamic Torque on a Triple-offset Butterfly Valve Used in Nuclear Power Plant

Qinzhao Zhang, Tsinghua University

ICONE19-43534

Numerical Simulation of Dynamic Flow Structure and Thermal Stratification Phenomena in LMFBR

Makoto Shibahara , Osaka University

ICONE19-43453

EFFECTS OF TURBULENCE NEAR A FREE SURFACE ON THE DYNAMICS OF TWO-PHASE FLOW

Ken Uzawa, JAEA

Session 24 B-1 (11:10 - 13:10)

Session Chair, Co-chair

Hideaki Heki, Toshiba Corporation

Leon Cizelj, Jožef Stefan Institute

TRK 3 Structural Integrity

Track Chair: Kazuyuki Tsukimori, Japan Atomic Energy Agency

Track Co-Chair: Kenji Takahashi, Mitsubishi Heavy Industries,LTD.

Track Co-Chair: Asif Arastu, Bechtel Power Corporation

Track Co-Chair: Leon Cizelj, Jožef Stefan Institute

Track Co-Chair: Zhenmao Chen, Xi'an Jiaotong University

Track Co-Chair: Qing Mao, China Nuclear Power Engineering Co., LTD

ICONE19-43961

Performance Analysis of Passively Safe BWR with Experimental and Numerical Simulation

Jun Yang, Purdue University

ICONE19-43121

A Generic Model for Residual Compressive Strength of Concrete after Fire in Nuclear Power Plants

yihai li, Guangdong Electric Power Design Institute, China

ICONE19-43440

SPECTRAL ELEMENT MODEL FOR THE AXIAL-BENDING-SHEAR COUPLED VIBRATION OF A COMPOSITE TIMOSHENKO BEAM

Usik Lee, Inha University

ICONE19-43489

PRESSURIZED WATER REACTOR VESSEL INTERNALS GUIDE TUBE GUIDE CARD WEAR AGING MANAGEMENT

Ibrahim Mohammed, Westinghouse Electric Company

TRK 4 Nuclear Technology Applications and Innovations

Track Chair: Ikuo Ioka, Japan Atomic Energy Agency

Track Co-Chair: Toshiharu Muramatsu, Japan Atomic Energy Agency
Track Co-Chair: Romney Duffey, AECL
Track Co-Chair: Ivo Kljenak, Jozef Stefan Institute
Track Co-Chair: Danrong Song, Nuclear Power Institute of China
Track Co-Chair: Chaohui He, Xian Jiaotong University

ICONE19-44128
PHENOMENOLOGICAL EVALUATION OF LASER-IRRADIATED WELDING PROCESSES WITH A COMBINED USE OF HIGHER-ACCURACY EXPERIMENTS AND COMPUTATIONAL SCIENCE METHODOLOGIES (3)IN-SITU OBSERVATIONS OF WELDED POOL USING AN INTENSE X-RAY BEAM
Tomonori Yamada, Japan Atomic Energy Agency

ICONE19-43910
Design of radiation shielding for the CPHS target station
B. Zhong, Tsinghua University

TRK 5 Advanced Reactors and Near Term Deployment
Track Chair: Hideaki Heki, Toshiba Corporation
Track Co-Chair: Dmitry Paramonov, Westinghouse
Track Co-Chair: Annalisa Manera, Paul Scherrer Institute
Track Co-Chair: Kan WANG, Tsinghua University
Track Co-Chair: Dongsheng Li, China Nuclear Power Technology Research Institute

ICONE19-43842
EVALUATION OF DAMAGES OF AIRPLANE CRASH IN EUROPEAN ADVANCED BOILING WATER REACTOR (EU-ABWR)
Kazuhiro Kamei, Toshiba Corporation

ICONE19-43646
A Study for Small - medium LWR Development of JAPC
Toshihiko Okazaki, Japan Atomic Power Company

Session 24 B-2 (14:00 - 16:00)

TRK 6 Safety and Security Expand All Sessions In Track

Session Chair, Co-chair

Yoshiyuki Narumiya., Kansai Electric Power Co

Xinrong LIU, China Nuclear Power Engineering Co.,Ltd

Track Chair: Kohei Hisamochi, Hitachi-GE Nuclear Energy, Ltd.

Track Co-Chair: Nobuyuki Ueda, central Research Institute of Eelctric Power Industry

Track Co-Chair: Martin Sattison, Idaho National Laboratory

Track Co-Chair: Jianqiang Shan, Xi'an Jiaotong University

ICONE19-43321

Development of Integrated Parameter Database for Risk Assessment at the Rokkasho Reprocessing Plant

Yoshikazu Tamauchi, Japan Nuclear Fuel Limited

ICONE19-43422

EXPERIMENTAL STUDY ON THERMAL INTERACTION OF ETHANOL JETS IN HIGH TEMPERATURE FLUORINERT

Rongyuan Sa, Tokyo institute of Technology

ICONE19-43100

AIR INGRESS ANALYSIS OF CHIMNEY EFFECT FOR SIMULTANEOUS RUPTURE OF TWO PRIMARY PIPES IN THE HTR-PM

Zheng Yanhua, INET, Tsinghua University

ICONE19-43784

A TRANSIENT MODELING OF A HELIUM TURBINE POWER SYSTEM

Heng Xie, Jie Wang, Institute of Nuclear Engineering Technology, Tsinghua University

ICONE19-43276

Preliminary study on In-Vessel Retention in large-scale advanced PWR

Hong XU, State Nuclear Power Technology Research & Development Centre, Beijing

ICONE19-43410

ANALYSIS OF HYDROGEN MITIGATION IN A SEVERE ACCIDENT

Jie Zou, School of Mechanical Engineering, Shanghai Jiaotong University, Shanghai

ICONE19-43286

REDEFINING INTERRELATIONSHIP BETWEEN NUCLEAR SAFETY, NUCLEAR SECURITY AND SAFEGUARDS

Kazutomo Irie, Japan Nuclear Energy Safety Organization/ The University of Tokyo

ICONE19-43782

Reaction Path Analysis of Sodium-Water Reaction Phenomena in support of Chemical Reaction Model Development

Shin Kikuchi, Japan Atomic Energy Agency

ICONE19-43435

VARIA - AN APPLICATION FOR MASS COMPUTING AND STATISTICAL ANALYSIS OF THE SIMULATION RESULTS IN BEPU SAFETY ASSESSMENT

Evgeny V. Moiseenko, Nuclear Safety Institute of Russian Academy of Sciences (IBRAE RAN)

Session 24 B-3 (16:00 - 18:00)

Session Chair, Co-chair

Yuichiro Yoshimoto, Hitachi-GE Nuclear Energy

Shi Lei, CNS, INET, Tsinghua University

TRK 7 Codes, Standards, Licensing and Regulatory Issues Expand All Sessions In Track

Track Chair: Tetsuya Nagata, Hitachi-GE Nuclear Energy

Track Co-Chair: Ralph Hill, Westinghouse Electric Company

Track Co-Chair: Aleksandr Kroshilin, VNIIAES

Track Co-Chair: Lingfu Zeng, ÅF-Industry AB

Track Co-Chair: Xuewu Cao, Shanghai Jiao Tong University

ICONE19-43272

OPINIONS ON DEVELOPMENT OF CHINA NUCLEAR POWER STANDARD SYSTEM

Huangweifeng Zhengjunming, General Design Division General Design Division China Nuclear Power Engineering Co.,Ltd.

ICONE19-43364

USING PROBABILISTIC SAFETY ASSESSMENTS IN OPERATING TECHNICAL SPECIFICATIONS: RECONCILING RISK INSIGHTS AND PRACTICAL PLANT CONSIDERATIONS

Isaac Malgas, Eskom, Generation Koeberg Nuclear Power Station, South Africa

ICONE19-43382

STUDY ON THE NEAR SURFACE DISPOSAL OF LILW IN CHINA

Wentang Zheng, Guangdong electric power design institute

TRK 8 Fuel Cycle, Radioactive Waste Management and Decommissioning Expand All Sessions In Track

Track Chair: Tsutomu Baba, Japan Nuclear Energy Safety Organization

Track Co-Chair: Morimasa Naito, Japan Atomic Energy Agency

Track Co-Chair: Patricia Paviet-Hartmann, Idaho National Laboratory

Track Co-Chair: Pavel Poluektov, Bochvar Institute

Track Co-Chair: Hubert Druenne, Tractebel - GDF SUEZ

Track Co-Chair: Xuegang Liu, Tsinghua University,Beijing, China

ICONE 19- 43519

Preliminary Research on Thorium-Uranium Fuel Cycle Characteristic in PWR

Wei Chunlin, Tsinghua University, Beijing

ICONE19-43160

Development of Spent Ion Exchange Resin Processing in Nuclear Power Stations

Yasutomi Morimoto, JGC Corporation, Research and Development Center

ICONE19-43801

OUTLINE OF LAUNDRY DRAINAGE TREATMENT SYSTEM COMBINING CATALYTIC OXIDATION AND FILTRATION

Masanori Kanda, NGK insulators, Ltd

ICONE19-43560

Interpretation of Hydrogeological Characteristics based on Data from Long-Term Cross-Hole Pumping Test

Hironori ONOE, Japan Atomic Energy Agency

ICONE19-43388

A calculation of spatial range of colloidal silicic acid deposited downstream from the alkali front

Yuichi Niibori, Dept. of Quantum Science & Energy Engineering, Tohoku University

ICONE19-43234

RADIOLOGICAL CHARACTERIZATION FOR SMALL TYPE LIGHT WATER REACTOR

Ken-ichi Tanaka, Japan Atomic Power Company

ICONE19-43255

A preliminary study on the transport behavior for a potential disposal site of LILW in southern China

Shuping Yi, Guongdong Electric Power Design Institute, China

Session 24 C-1 (11:10 - 13:10)

Session Chair, Co-chair

Guanghui Su, Xi'an Jiaotong University

Yoshihisa Nishi, Central Research Institute of Electric Power

TRK 9 Thermal Hydraulics

Track Chair: Kazuyuki Takase, Japan Atomic Energy Agency

Track Co-Chair: Hiroyasu Ohtake, Kogakuin University

Track Co-Chair: Michitsugu Mori, Tokyo Electric Power Co., Inc.

Track Co-Chair: Yasushi Yamamoto, Toshiba Corporation

Track Co-Chair: SHINICHI MOROOKA, Japan/Waseda University

Track Co-Chair: Richard Schultz, Idaho National Laboratory

Track Co-Chair: Yassin Hassan, Department of Nuclear Engineering

Track Co-Chair: Guanghui Su, Xi'an Jiaotong University

ICONE19-43529

Validation of Coupled Neutron Kinetics and Thermal Hydraulics Analysis Code SKETCH-INS/TRACE5.0 and Application to Statistical Safety Evaluation of BWR Loss of Load Transient

Ryoko ICHIKAWA, Japan Nuclear Energy Safety Organization

ICONE19-43592

Improvement of MARS Code Reflood Model

Moonkyu Hwang, Korea Atomic Energy Research Institute

ICONE19-43969

RELAP5 Analysis of OECD/NEA ROSA-2 Project Experiments on Intermediate-break LOCAs at Hot Leg or Cold Leg

Takeshi TAKEDA, Japan Atomic Energy Agency (JAEA)

ICONE19-43568

MODELING OF DYNAMIC INSTABILITIES IN BOILING SYSTEMS

L.C.Ruspini, Department of Energy and Process Engineering, NTNU, Norway

ICONE19-43043

Investigation of Wall Temperature Fluctuations by Visualization Tests for Steam-Water Two-Phase Flow in the Pressurizer Spray Piping
Koji Miyoshi, Institute of Nuclear Safety System, Inc.

ICONE19-43538
Visualization of Cavitation Flow Field Downstream from an Orifice
Yukinori NAGAYA, Institute of Nuclear Safety System, Inc.

ICONE19-43258
Visualization of Bubble Size Distribution in Inclined Rectangular Channel
Gang Hong, CNNC Key Laboratory on Nuclear Reactor Thermal Hydraulics

ICONE19-43607
APPLICATION OF CONSTANT ELECTRIC CURRENT METHOD IN DISPERSED BUBBLY FLOW
Shin-ichiro UESAWA, University of Tsukuba

ICONE19-44020
Multi-dimensional Two-Phase Flow Measurements in a Large-Diameter Pipe Using Wire-Mesh Sensor
Taizo KANAI, Central Research Institute of Electric Power Industry

ICONE19-44019
LIQUID FILM THICKNESS MEASUREMENT IN SMALL SQUARE PIPE USING ULTRASONIC PULSE-ECHO METHOD
Goro AOYAMA, Hitachi, Ltd.

ICONE19-43085
Prediction of Critical Heat Flux in Narrow Rectangular Channels Using an Artificial Neural Network
Zhou Lei, CNNC Key Laboratory on Nuclear Reactor Thermal Hydraulics Technology, Nuclear Power Institute of China

ICONE19-43852
NUCLEATE BOILING HEAT TRANSFER AND CRITICAL HEAT FLUX IN TITANIUM DIOXIDE-WATER NANOFLUIDS

Tomio Okawa, Department of Mechanical Engineering, Osaka University

Session 24 C-2 (14:00 - 16:00)

Session Chair, Co-chair

Kenichi Kubota, Toshiba Corporation

He Keyu, China Nuclear Power Engineering Co.,Ltd.

ICONE19-44124

Development of PIRT for Fast Reactor under Natural Circulation Decay Heat Removal Operations

Norihiro Doda, JAEA

ICONE19-43704

Modeling on Bubbly to Churn Flow Pattern Transition for Vertical Upward Flows in Narrow Rectangular Channel

Yanlin Wang, Nuclear Power Institute of China

ICONE19-43535

COMPARISON OF THE WATER AND SODIUM CAVITATION PHENOMENA IN VENTURI

Teddy Ardiansyah, Tokyo Institute of Technology

ICONE19-43900

PREDICTION OF BYPASS FLOWS IN HTR-PM BYTHE FLOW NETWORK METHOD

Jun Sun, INET, Tsinghua University

ICONE19-43309

ANALYSIS ON ATWS CAUSED BY EARTHQUAKE OF THE HTR-10GT

Lang Minggang , Tsinghua University, Beijing China

ICONE19-43192

STUDY ON HIGH SPEED LITHIUM JET FOR NEUTRON SOURCE OF BORON NEUTRON CAPTURE THERAPY (BNCT)

Minoru Takahashi, Tokyo Institute of Technology

ICONE19-43977

Development of Prediction Technology of Two-Phase Flow Dynamics under Earthquake Acceleration (1) Numerical Simulation of Two-Phase Flow Behavior under Earthquake Acceleration

Hiroyuki Yoshida, Japan Atomic Energy Agency

ICONE19-44166

Development of Prediction Technology of Two-Phase Flow Dynamics under Earthquake Acceleration (2) - Experimental Study on Flow Rate Fluctuation -

Hideaki Monji, University of Tsukuba

ICONE19-44150

Development of Prediction Technology of Two-Phase Flow Dynamics under Earthquake Acceleration (3) -The effect of structure vibration on bubbly flow behavior-

Kousuke Mizuno, University of Tsukuba

ICONE19-43222

Countercurrent Air-Water Tests Using a Scale Model of a Pressurizer Surge Line

Chihiro Yanagi, Institute of Nuclear Safety System, Inc.(INSS)

Session 24 C-3 (16:00 - 18:00)

Session Chair, Co-chair

Hiroyuki Yoshida, Japan Atomic Energy Agency

Asif Arastu, Bechtel Power Corporation

ICONE19-43528

EFFECT OF SOLIDIFICATION ON BREAKUP BEHAVIOR
DURING MOLTEN MATERIAL JET AND COOLANT INTERACTION

Takashi Wada, University of Tsukuba

ICONE19-43982

SIMULATION OF SOLID-LIQUID MULTIPHASE FLOWS WITH FUEL RELOCATION AND FREEZING BEHAVIOR IN PIN BUNDLE GEOMETRY

Md. Abdul Malek Soner, Kyushu University

ICONE19-43284

HEAT AND MOMENTUM TRANSFER MECHANISMS UNDER THE
DIRECT-CONTACT-CONDENSATION BETWEEN SUPERSONIC STEAM FLOW AND WATER JET

Shunsuke Shibayama, University of Tsukuba

ICONE19-43556

Bubble behavior in subcooled flow boiling in a vertical rectangular channel

ROUHOLLAH AHMADI, Osaka University

ICONE19-43523

Farther study on transient boiling phenomena generated by microwave heating

Shota Suzuki, University of Tsukuba

ICONE19-43407

EXPERIMENTAL STUDY IN INFLUENCE OF FLOW STRUCTURE ON JET SURFACE FRAGMENTATION

Taihei Kuroda, Univercity of Tsukuba

ICONE19-43421

Nuclear reaction analysis for composition measurement of BN thin films

T. Kobayashi, Tsuyama National College of Technology

ICONE19-43556

Bubble behavior in subcooled flow boiling in a vertical rectangular channel

ROUHOLLAH AHMADI, Osaka University

ICONE19-43284

HEAT AND MOMENTUM TRANSFER MECHANISMS UNDER THE DIRECT-CONTACT-CONDENSATION BETWEEN SUPERSONIC STEAM FLOW AND WATER JET

Shunsuke Shibayama, University of Tsukuba

ICONE19-43407

EXPERIMENTAL STUDY IN INFLUENCE OF FLOW STRUCTURE ON JET SURFACE FRAGMENTATION

Taihei Kuroda, Univercity of Tsukuba

ICONE19-44189

THE EFFECT OF RICE HUSK ASH ADDITION AND SAND VOLUME VARIATION ON LIQUID RADIOACTIVE WASTE CEMENTATION

Saiful A. Nugroho, GadjahMada University, Indonesia

ICONE19-43348

MEASUREMENT OF NON-EQUIBIAXIAL RESIDUAL STRESS FIELD BY INDENTATION TECHNIQUE USING ASYMMETRIC INDENTER

Houichi Kitano, Osaka University

ICONE19-43024

Effect of the two phase flow models in the nuclear reactor single channel stability analysis

Jiyun Zhao, Nanyang Technological University, China

Session 24 D-1 (11:10 - 13:10)

Session Chair, Co-chair

Hiroshige Kikura, Tokyo Institute of Technology

Tao Zhou, Chinese Academy of Sciences

TRK 16 Student Paper Competition

Track Chair: Hiroshige Kikura

Track Co-Chair: Tomio Okawa, Osaka University

Track Co-Chair: Igor Pioro, University of Ontario Institute of Technology

Track Co-Chair: Sama Bilbao y Leon, Virginia Commonwealth University

Track Co-Chair: Wolfgang Hansen, Technical University Dresden

Track Co-Chair: Suyuan Yu, INET, Tsinghua University

Track Co-Chair: Suizheng Qiu, Xi'an Jiaotong University

ICONE19-43420

INVESTIGATION OF FLOW STRUCTURE TRANSITION IN LOWER PLENUM OF ABWR

Shun Watanabe, University of Tsukuba

ICONE19-43507

THERMAL ASPECTS OF USING ThO2 IN A 54- AND 64-ELEMENT FUEL BUNDLE DESIGNED FOR SCWR APPLICATION

Krysten King, University of Waterloo (Canada)

ICONE19-43858

An improved critical heat flux prediction model for subcooled and low quality flow boiling under motion condition based on microscopic mechanism

Wenxing LIU, Xi'an Jiaotong University (China)

ICONE19-44082

EFFECT OF HEAT TRANSFER COEFFICIENT ON SHEATH AND FUEL CENTRELINE TEMPERATURES IN SCWRS

Lisa Grande, University of Ontario Institute of Technology (Canada)

ICONE19-43109

STUDY ON BOILING HEAT TRANSFER OF MINI-HEAT TRANSFER SURFACE IN NARROW CHANNELS

Yoshiki Morita, Shinshu University

ICONE19-43215

NUMERICAL RESEARCH ON THE THERMAL HYDRAULICS OF THE COOLANT IN A PEBBLE BED REACTOR CORE BY CFD

Hua Li, , Xi'an Jiaotong University (China)

ICONE19-43248

Experimental study on method for heat transfer enhancement using a porous material

Takuya Shimura, University of Yamanashi

ICONE19-43503

DEVELOPING A HEAT-TRANSFER CORRELATION FOR SUPERCRITICALWATER FLOWING IN VERTICAL TUBES AND ITS APPLICATION IN SCWRS

Sahil Gupta, University of Ontario Institute of Technology (Canada)

ICONE19-43617

THE STUDY OF VELOCIMETRY IN HIGH TEMPERATURE FLOW

Tomonori Ihara, Tokyo Institute of Technology

ICONE19-43509

A RELATIONSHIP BETWEEN THE MOTION OF A ZIGZAGGING BUBBLE AND ITS WAKE

Rintarou Tachibana, Shizuoka university

ICONE19-44083

WHOLE-FIELD VELOCITY MEASUREMENTS OF ISOTHERMAL BUBBLE PLUME USING PTV

Abdul Khan, Texas A&M University (USA)

ICONE19-43240

EFFECTS OF HOMOGENEOUS GEOMETRY MODELS IN SIMULATING THE FUEL BALLS IN HTR-10

Jinn-Jer Peir, National Tsing Hua University (Taiwan)

ICONE19-44066

THE TRIGONAL NODAL SP3 METHOD OF THE REACTOR CODE DYN3D

Susan Duerigen, Helmholtz-Zentrum Dresden-Rossendorf (Germany)

ICONE19-43235

DEVELOPMENT OF A MONTE CARLO MULTI-GROUP CONSTANTS GENERATION CODE

Mancang Li, Tsinghua University (China)

ICONE19-43237

EVALUATION OF PHYSICAL PROPERTIES OF SIMULATED PLUTONIUM INERT MATRIX FUEL OF VARYING DENSITIES WITH THERMAL SHOCK EXPERIMENTS

Nadia Rohbeck , Lehrstuhl Wasserstoff-und Kernenergietechnik, Technische Universität Dresden (Germany)

ICONE19-43803

HEAT-TRANSFER CALCULATIONS OF A RE-ENTRANT CHANNEL FOR PRESSURE-TUBE SCWRS

Eugene Saltanov, University of Ontario Institute of Technology (Canada)

ICONE19-43288

TUDY ABOUT SUSTAINABLE SCENARIO OF NUCLEAR FUEL CYCLE IN CHINA

Yilin KONG, Tohoku University

Session 24 D-2 (14:00 - 16:00)

Session Chair, Co-chair

Tomio Okawa, Osaka University

Mamoru Ishii, Purdue University

ICONE19-43372

Numerical Simulation of Opposing Mixed Convection Heat Transfer of Lithium-Lead in a Vertical Square Channel with Heat Source

Weifeng Ni, Xi'an Jiaotong University (China)

ICONE19-43691

Thermalhydraulic Analysis of Uranium Carbide (UC) Fuel in 54 and 64-Element Fuel Bundles for SCWRs

Arif Qureshi, University of Ontario Institute of Technology (Canada)

ICONE19-43492

STUDY OF SELECTED TURBULENT MODELS FOR SUPERCRITICAL WATER HEAT TRANSFER IN VERTICAL BARE TUBES USING CFD CODE FLUENT-12

Amjad Farah, University of Ontario Institute of Technology (Canada)

ICONE19-43654

SIMULATION OF HYDROGEN DEFLAGRATION EXPERIMENTS IN THE ENACCEF FACILITY USING ASTEC CODE

Mantas Povilaitis, Lithuanian Energy Institute

ICONE19-43773

EFFECT OF GAP CONDUCTANCE ON HIGH THERMAL-CONDUCTIVITY FUELS IN SUPERCRITICAL WATER-COOLED REACTORS (SCWRS)

Wargha Peiman、University of Ontario Institute of Technology （Canada）

ICONE19-43981

Numerical Simulation of Effective Viscosity in Solid-Fluid Mixture Flows Using Finite Volume Particle Method

Takahito Suzuki, Kyushu University

ICONE19-43281

MEASUREMENT OF MASS TRANSFER COEFFICIENT IN DIRECT CONTACT SULFURIC ACID CONCENTRATION FOR IS PROCESS
Katsuteru Sugiyama, University of Tsukuba

ICONE19-43635
MODERATOR HEAT-LOSS ANALYSIS OF A CERAMIC-INSULATED RE-ENTRANT SCWR FUEL-CHANNEL
Jeffrey Samuel, University of Ontario Institute of Technology (Canada)

ICONE19-43021
PARAMETER DESIGN AND OPTIMIZATION OF TIGHT-LATTICE ROD BUNDLES
Chunhui DAI , Xi'an Jiaotong University (China)

ICONE19-43238
EXPERIMENTAL AND THEORETICAL STUDIES OF THE WALL BOUNDARY REGION "HEAVY LIQUID-METAL
Kirill Makhov, Nizhny Novgorod State Technical University by R.E. Alekseev

ICONE19-43644
TEMPERATURE PROFILES OF A VERTICAL BARE 7-ELEMENT BUNDLE COOLED WITH SUPERCRITICAL FREON-12
Graham Richards, University of Ontario Institute of Technology

ICONE19-43210
EXPERIMENTAL STUDY OF LIQUID-METAL TARGET DESIGNS OF ACCELERATING-CONTROLLED SYSTEMS
Mikhail Iarmonov, Nizhny Novgorod State Technical University by R.E. Alekseev

ICONE19-43640
INTERMEDIATE DOUBLE-PIPE HEAT EXCHANGER FOR THERMOCHEMICAL HYDROGEN CO-GENERATION WITH SCW NPP
Andrew Lukomski, University of Ontario Institute of Technology (Canada)

ICONE19-43522
A Partial Factor-Based Approach for the Assessment of Nuclear Piping Vulnerable to Corrosion

Xufang Zhang, University of Waterloo (Canada)

ICONE19-43734

Development of Cesium Trapper and Single-Gas-Bubble Injector into Sodium Pool

Kazuki Mizutani, Hokkaido university

ICONE19-44184

RADIOLOGICAL CONSEQUENCES ANALYSIS FOR POSTULATED LBLOCA ON PWR 1300 AT MURIA PENINSULA

Irwan Ferdiansyah, Gadjah Mada University (India)

ICONE19-43162

EFFECT OF GRAVITY ON DISTRIBUTION PARAMETER AND DRIFT VELOCITY IN VERTICAL UPWARD BUBBLY TWO-PHASE FLOW

Yusuke Shimomura, Tokyo University of Marine Science and Technology

ICONE19-43876

UPDATED HEAT TRANSFER CORRELATIONS FOR SUPERCRITICAL WATERCOOLED REACTOR APPLICATIONS

Sarah Mokry, University of Ontario Institute of Technology

Session 24 D-3 (16:00 - 18:00)

Session Chair, Co-chair

Igor Pioro, University of Ontario Institute of Technology

Fumio Kasahara, Japan Nuclear Energy Safety Organization (JNES)

ICONE19-43127

Thermal Hydraulic Analysis of Thermal Stratification in Pressurizer Surge Line

Yang Mengjia, China Guangdong Nuclear Power Engineering CO.,LTD.

ICONE19-43525

EVALUATION OF HEAT LOSS AND WATER TEMPERATURE IN A SPENT FUEL PIT

Michio Murase, Institute of Nuclear Safety System, Inc

ICONE19-43830

Numerical Simulation of Two-phase Critical Flow with the Phase Change in the Nozzle Tube

Masahiro Ishigaki, Japan Atomic Energy Agency

ICONE19-43627

Best Estimate Probabilistic Safety Assessment Results for the Westinghouse Advanced Loop Tester (WALT)

Guoqiang Wang, Westinghouse Electric Company LLC

ICONE19-43273

INVESTIGATION OF CRITICAL HEAT FLUX IN THE ROD BUNDLE USING MECHANISTIC APPROACH IN CONJUNCTION WITH THE SUBCHANNEL CODE

Dinesh Chandraker, Bhabha Atomic Research Centre, India

ICONE19-43123

Reduced Height Effect on the PWR's Integral Test Facility during Long Term Cooling

Yuquan Li, State Nuclear Power Technology R&D Center, China

ICONE19-43809

Analysis of thermal-hydraulic performance on Starting Methods of IPWR

Liang Zhao, Xi'an Jiaotong University

ICONE19-43167

BUBBLE-TYPE GAS ENTRAINMENT INTO LIQUID FROM FREE SURFACE BY VORTEX

Yasuo Koizumi, Shinshu University

ICONE19-43786

THERMAL HYDRAULIC TEST OF ADVANCED FUEL BUNDLE WITH SPECTRAL SHIFT ROD (SSR) FOR BWR - EFFECT OF THERMAL HYDRAULIC PARAMETERS ON STEADY STATE CHARACTERISTICS -

Takao Kondo, Hitachi-GE Nuclear Energy, Ltd.

ICONE19-43586

Effectiveness of natural circulation on molecular diffusion of two component gases in a stratified fluid layer

Tetsuaki Takeda, University of Yamanashi

ICONE19-43772

DROPLET DEPOSITION RATE IN VERTICAL ANNULAR TWO-PHASE FLOW

Pravin Sawant, Energy Research, Inc., Rockville, MD-20852, USA
Michitsugu Mori, Tokyo Electric Power Co., Inc.

Oct.25th

Session 25 A-1 **(9:00- 11:00)**

Session Chair, Co-chair

Atsushi Ishikawa, IHI

Robin J. McCollum, Bechtel Marine Propulsion Inc.

TRK 11 Instrumentation & Controls

Track Chair: Kenji Urase, Hitachi-GE Nuclear Energy, Ltd.

Track Co-Chair: Bob Stakenborgh, ILD, Inc.

Track Co-Chair: Zhijian Zhang

Track Co-Chair: Hirohisa Satomi, Hitachi,Ltd.

ICONE19-43115

ASSESSMENT OF ADVANCED REACTOR CORE PROTECTION SYSTEM FOR PRESSURIZED WATER REACTOR

Wang-Kee In, KAERI

ICONE19-43169

VERIFICATION OF FPGA-BASED NPP I&C SYSTEMS: GENERAL APPROACH AND TECHNIQUES

Anton Andrashov, Centre for Safety Infrastructure-Oriented Research and Analysis

ICONE19-43216

ASSESSMENT OF MULTI-VERSION NPP I&C SYSTEMS SAFETY: METRIC-BASED APPROACH, TECHNIQUE AND TOOL

Viacheslav I. Duzhyi , Centre for Safety Infrastructure-Oriented Research and Analysis

ICONE19-43159

Conceptual Design of an FPGA-Based AMSAC System for Taiwan's Maanshan NPP

Jun-Jen Lu, National Tsing Hua University

ICONE19-43011

ROBUSTNESS OF NUCLEAR CORE ACTIVITY RECONSTRUCTION BY DATA ASSIMILATION

Bertrand BOURIQUET, CERFACS

ICONE19-43013

OPTIMAL DESIGN OF MEASUREMENT NETWORK FOR NEUTRONIC ACTIVITY FIELD RECONSTRUCTION BY DATA ASSIMILATION

Bertrand BOURIQUET, CERFACS

ICONE19-43461

RESEARCH ON THE OPTIMIZATION OF SAFETY INFORMATION AND CONTROL SYSTEM OF CPR1000 NPP

Ke Tan, CNPEC, Shenzhen, PRC

ICONE19-43003

REACTOR COOLANT FLOW CALCULATOR

Peter Hung, Westinghouse Electric Company LLC

ICONE19-43623

THE BACKUP OF MAIN CONTROL MEANS ANALYSIS AND APPLICATION IN HYH NPP

Huang Weijun, China Nuclear Power Design Co., LTD

ICONE19-43895

OPTIMUM INJECTION PRESSURE OF A CAVITATING JET ON INTRODUCTION OF COMPRESSIVE RESIDUAL STRESS INTO STAINLESS STEEL

Hitoshi Soyama, Tohoku University

Session 25 B-1 (9:00- 11:00)

Session Chair, Co-chair

Tetsuaki Takeda, University of YamanashiJoe Miller, EDA, Inc.

David L. Aumiller, Bechtel Marine Propulsion Inc.

TRK 12 Next Generation Systems

Track Chair: Ryodai Nakai, Japan Atomic Energy Agency

Track Co-Chair: Tetsuaki Takeda, University of Yamanashi

Track Co-Chair: Ryutaro Hino, Japan Atomic Energy Agency

Track Co-Chair: Huiping Cheng

Track Co-Chair: Glenn Harvel, University of Ontario Institute of Technology

Track Co-Chair: Toru Nakatsuka, Japan Atomic Energy Agency

ICONE19-43804

SAFETY CONSIDERATION IN CORE DESIGN OF KALIMER-600, METALLIC FUELED SFR

Moo-Hoon Bae, Korea Institute of Nuclear Safety (KINS)

ICONE19-43935

Development of a Helical-Coil Double Wall Tube Steam Generator for 4S Reactor

Yuko Kitajima, TOSHIBA Corporation

ICONE19-43807

SAFETY ASPECTS OF VERY HIGH TEMPERATURE REACTOR CORE DESIGN

Chang-Yong Jin, Korea Institute of Nuclear Safety (KINS)

ICONE19-43264

TIGHTLY COUPLED MULTIPHYSICS SIMULATIONS FOR PRISMATIC REACTORS

Hiroyuki Sato, Japan Atomic Energy Agency (JAEA)

ICONE19-43738

Research on Physical Characteristics of the First Core in the Pebble Bed High Temperature Gas-Cooled Reactor

Jingyu ZHANG, Tsinghua University (China)

ICONE19-43227

THE DYNAMIC MATHEMATIC SIMULATION MODEL OF STEAM GENERATOR FOR HTR-PM

Sui Zhe , INET, Tsinghua University (China)

ICONE19-43742

FLOWSHEET STUDY OF HI SEPARATION PROCESS FROM HI-H2O-I2 SOLUTION IN THE THERMOCHEMICAL HYDROGEN PRODUCTION IODINE-SULFUR (IS) PROCESS

Seiji Kasahara, Japan Atomic Energy Agency (JAEA)

ICONE19-43220

DEVELOPMENT OF HYDRAULIC ANALYSIS CODE FOR OPTIMIZING CERAMICS REACTORS

Atsuhiko Terada, Japan Atomic Energy Agency (JAEA)

ICONE19-43177

Experimental Study of Airflow-Mixture by Using PIV

Yu Kamiji , Japan Atomic Energy Agency (JAEA)

ICONE19-43459

ADS CORE DESIGN AND BURNUP ANALYSIS

Yongwei YANG, INET, Tsinghua University, China

ICONE19-43038

Response matrix method and its application to SCWR single channel stability analysis

Jiyun Zhao, Nanyang Technological University, China

ICONE19-43147

NUMERICAL ANALYSIS OF TURBULENT FLOW WITH HEAT TRANSFER IN A SQUARE DUCT WITH 45 DEGREE RIBS

Yuria Okagaki, Utsunomiya University

ICONE19-43563

Corrosion test of metallic materials in high temperature acidic environments of IS process

Nobuyuki Tanaka, Japan Atomic Energy Agency

Session 25 C-1 (9:00- 11:00)

Session Chair, Co-chair

Kazuhiko Yamamoto, Japan Atomic Power Company

Robert A. Wall, Bechtel Marine Propulsion Inc.

TRK 13 Fusion Engineering

Track Chair: Hiroshi Horiike, Osaka University

Track Co-Chair: Yican Wu, Institute of Plasma Physics, Chinese Academy of Sciences

Track Co-Chair: Igor Jovanovic, The Pennsylvania State University

Track Co-Chair: Kunugi Tomoaki, Kyoto University

Track Co-Chair: Akihiko Shimizu, Kyushu University

ICONE19-43944

FIRST NEUTRONICS ANALYSIS FOR ITER BIO-SHIELD EQUATORIAL PORT PLUG

Tong Qiang Dang, University of Science and Technology of China, China

ICONE19-43608

DIAGNOSTICS OF HIGH-SPEED LIQUID LITHIUM JET FOR IFMIF/EVEDA LITHIUM TEST LOOP

Takuji Kanemura , Japan Atomic Energy Agency (JAEA)

ICONE19-44185

Study on Surface Wave Characteristics of Free Surface Flow of Liquid Metal Lithium for IFMIF

Eiji Hoashi, Osaka University

ICONE19-43107

UPWINDING MESHFREE POINT COLLOCATION METHOD FOR UNSTEADY MAGNETOHYDRODYNAMIC FLOW AT HIGH HARTMANN NUMBERS

Zhao Liang, Xi'an Jiaotong University

TRK 15 Nuclear Education, Human Resources and Public Acceptance

Track Chair: Junko Ogawa, Tokyo City University

Track Co-Chair: Koji Okamoto, University of Tokyo

Track Co-Chair: Jay Kunze, Idaho State University

Track Co-Chair: Stephen Kidd, WNA

Track Co-Chair: Changxin Liu, Chinese Nuclear Society
Track Co-Chair: Kazuhiko Yamamoto, The Japan Atomic Power Company

ICONE19-43045

The Current State and Issues Regarding Communication from the Nuclear Energy Industry to the Mass Media in Japan

Tatsuro Tsuchida, The University of Tokyo

ICONE19-43270

PROGRESSION OF TECHNOLOGY EDUCATION FOR ATOMIC ENERGY ENGINEERING IN TSUYAMA NATIONAL COLLEGE OF TECHNOLOGY

T. Kobayashi, Tsuyama National College of Technology

ICONE19-43294

ANALYSIS AND EVALUATION FOR SOCIAL ACCEPTABILITY FOR UTILIZING NUCLEAR POWER IN CHINA

Ting XU, Tohoku University

ICONE19-43265

PUBLIC OFFERING SYSTEM OF RESEARCH AND DEVELOPMENT IDEAS IN JAPC

Yoshiyuki Nakayama, The Japan Atomic Power Company

Session 25 D-1 (9:00- 11:00)

Session Chair, Co-chair

Hideaki Monji, Tsukuba University

Wang Yongliang, Hefei Institutes of Physical Science, Chinese Academy of Sciences

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TRK 14 Reactor Physics, Neutronics and Transport Theory

Track Chair: Akio Yamamoto, Nagoya University

Track Co-Chair: Hideki Matsumoto, Mitsubishi Heavy Industries, Ltd./Reactor Core Engineering

Track Co-Chair: Hongchun Wu, Xi'an Jiaotong University

Track Co-Chair: Zafar Koreshi, Air University

ICONE19-43095

Development of BWR Transient Analysis Code TRACT

Norio Sakai , Toshiba Corporation

ICONE19-43911

THE SIMULATION ON THE RUNNING-IN PHASE OF THE HTR-10

Bing XIA , Institute of Nuclear and New Energy Technology (China)

ICONE19-43917

CHARACTERISTIC STATISTIC ALGORITHM (CSA) AND ITS APPLICATION ON LARGE PWR RELOADING DESIGN

Zhihong Liu, INET, Tsinghua University, China

ICONE19-43959

VERIFICATION OF JUPITER STANDARD ANALYSIS METHOD FOR UPGRADING JOYO MK-III CORE DESIGN AND MANAGEMENT

Shigetaka Maeda, Japan Atomic Energy Agency (JAEA)

ICONE19-43353

DEVELOPMENT AND VALIDATION OF BURNUP FUNCTION IN REACTOR MONTE CARLO RMC

Ding SHE, Tsinghua University (China)

ICONE19-43067

Application of data mining in three-dimensional space time reactor model

Botao Jiang, Xi'an Jiaotong University (China)

ICONE19-43209

SPATIALLY DEPENDENT GRAY RESONANCE SHIELDING METHOD FOR GENERATING RADIAL POWER PROFILES WITHIN PELLET

Hiroki Koike, Mitsubishi Heavy Industries, Ltd.

ICONE19-43188

Development of a New Lattice Physics Code GALAXY-H for Hexagonal Geometries

Yohei Kamiyama, Mitsubishi Heavy Industries, Ltd.