



TopFuel
2026 TOKYO

Programme

12th October - 15th October 2026, Tokyo, Japan
Venue : Shinagawa Intercity Hall & Conference

TopFuel
2026 TOKYO

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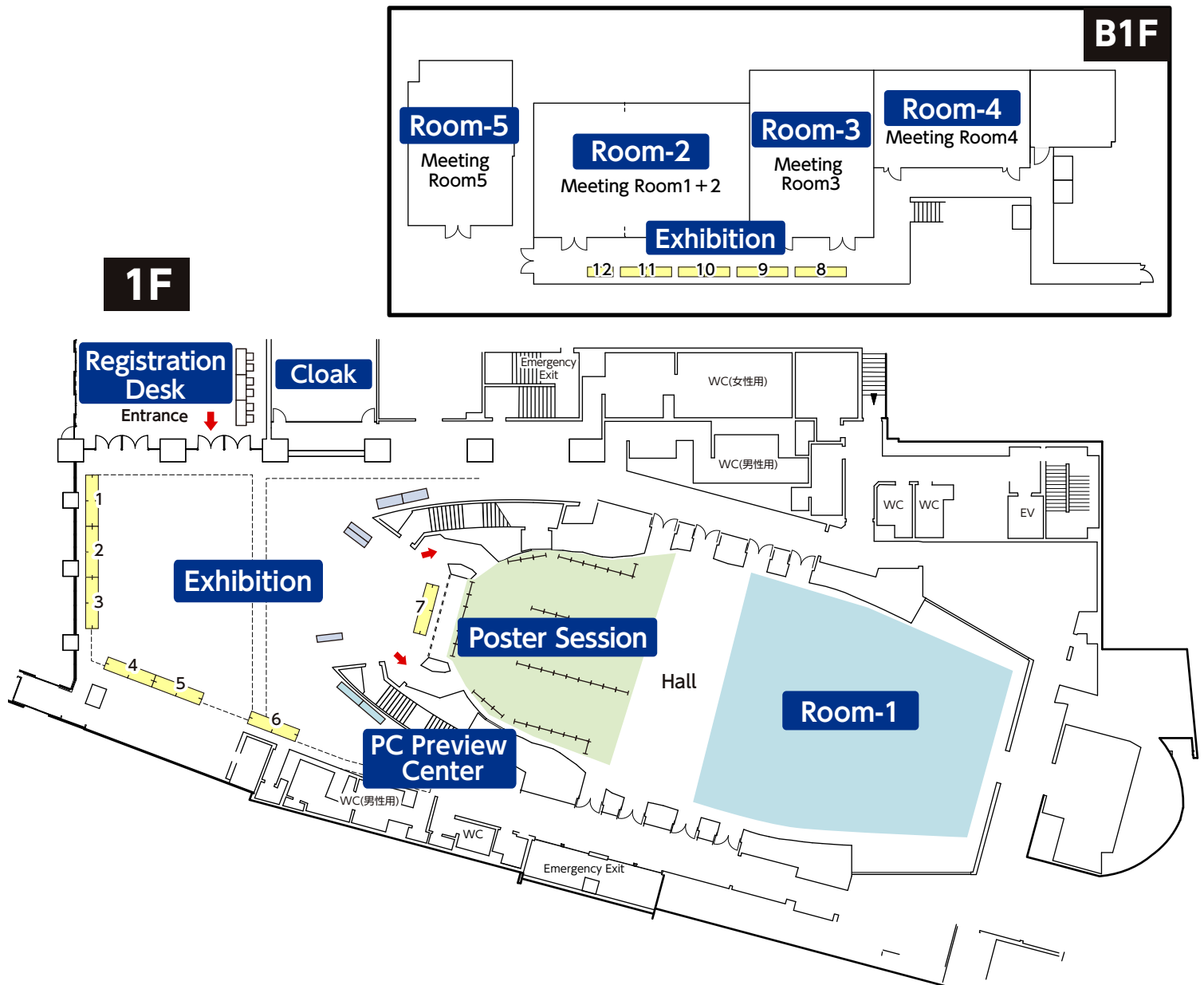


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Monday, 12th October, 2026
Welcome Reception, 17:00-19:00

Tuesday, 13th October, 2026
Moderator: Takanari OGATA, (Chair of the Exective Committee)

Opening Address, 8:30-8:40
Venue Room-1 (Hall)
Hiroyuki OIGAWA, (Chair of the Organizing Committee)

Plenary Session 1 - Nuclear Fuels in Japan: Current Status and Future Outlook - 8:40-10:00
Venue Room-1 (Hall) *Chair Masahiko OSAKA*

Time		Paper	Speaker	Affiliation
8:40	9:15	Accident Tolerant Fuel Must Become Advanced Technology Fuel	Toyoshi FUKETA	Nuclear Damage Compensation and Decommissioning Facilitation Corporation
9:15	9:35	The Future of Nuclear Energy and Fuel Cycle in Japan	Seiichi MIYASHITA	Ministry of Economy, Trade and Industry
9:35	10:00	Japan's Efforts toward Practical Deployment of Accident Tolerant Fuel: Roles and Future Contributions of JAEA	Shinichiro YAMASHITA	Japan Atomic Energy Agency

Biography

– **Toyoshi FUKETA** (*Nuclear Damage Compensation and Decommissioning Facilitation Corporation*)

Dr. Toyoshi Fuketa is Head of Decommissioning at the Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF), leading the technical strategy for the decommissioning of the Fukushima Daiichi Nuclear Power Plant. He served as Commissioner and later Chairman of Japan's Nuclear Regulation Authority (2012~2022), helping establish the country's post-Fukushima regulatory framework. Previously, he spent 25 years in nuclear safety research at JAERI and JAEA, specializing in reactor fuel behavior under accident conditions, and was honored by ASTM International with the William J. Kroll Zirconium Medal. In addition to his role at NDF, he concurrently serves as a Senior Researcher at the University of Tokyo, a member of the IAEA INSAG, and Chair of the OECD/NEA FACE Project Management Board. He received BS, MS, and PhD degrees in Mechanical Engineering Science from the Institute of Science Tokyo.

– **Seiichi MIYASHITA** (*Ministry of Economy, Trade and Industry, Japan*)

Mr. Seiichi Miyashita is Director for Nuclear Safety Improvement, Nuclear Technology, and Fusion Energy at Japan's Agency for Natural Resources and Energy (ANRE). Since joining the Ministry of Economy, Trade and Industry (METI) in 2005, he has held a wide range of policy and management positions in nuclear energy, industrial policy, trade, finance, and human resources. He holds a Master's degree in Nuclear Engineering from the Tokyo Institute of Technology.

– **Shinichiro YAMASHITA** (*Japan Atomic Energy Agency*)

Dr. Shinichiro Yamashita is General Manager of the Light Water Reactor Research Management Office in the Research and Development Promotion Department of the Japan Atomic Energy Agency (JAEA). He began his career at JAEA conducting research on advanced fuel cladding materials for fast reactors. Since 2015, he has been involved in Japan's Accident Tolerant Fuel (ATF) Program supported by the Ministry of Economy, Trade and Industry (METI), serving as Project Coordinator and, since 2022, Project Manager. He also oversees JAEA's fundamental research program on ATF cladding materials.

In addition to his responsibilities at JAEA, he has served as a Guest Professor at Hokkaido University since 2023, contributing to the education and development of future nuclear professionals. He has also served since 2023 as a Member of the Nuclear Fuel Subcommittee of the Nuclear Standards Committee of the Japan Electric Association (JEA), contributing to nuclear human resource development and standards activities in Japan.

Plenary Session 2 - Nuclear Fuels Worldwide: Current Status and Future Outlook – 10:10-12:40*Venue Room-1 (Hall)**Chair Masahiko OSAKA*

Time		Paper	Speaker	Affiliation
10:10	10:40	Present Status and Future Prospects of Nuclear Fuel Research and Development in Japan	Kan SAKAMOTO	Nuclear Fuel Division of Atomic Energy Society of Japan and Nippon Nuclear Fuel Development
10:40	11:10	Progress and Prospects in Chinese Nuclear Fuel and Materials Research	Wenjing WANG	Branch of Nuclear Power Operation and Application Technology of Chinese Nuclear Society and China Nuclear Energy Industry Corporation
11:10	11:40	Present Status and Prospects of the Korea Nuclear Fuel	Jae-Don CHOI	Korean Nuclear Society / KEPCO Nuclear Fuel
11:40	12:10	European Perspectives on Nuclear Fuel Development: From today's LWR fleet to tomorrow's Advanced Reactors	Thomas Heinz WIESE	European Nuclear Society / Framatome
12:10	12:40	The DOE Advanced Fuels Campaign: Enabling Nuclear Energy Expansion	Daniel M WACHS	American Nuclear Society and Idaho National Laboratory

Biography**– Kan SAKAMOTO** (*Nuclear Fuel Division, Atomic Energy Society of Japan and Nippon Nuclear Fuel Development*)

Dr. Sakamoto is a Senior Researcher of Research Department of the Nippon Nuclear Fuel Development (NFD) and also serves as Vice President of Nuclear Fuel Division of AESJ since 2026. He holds a Doctor of Engineering from Kyushu University.

Dr. Sakamoto started his career as a research associate at Kyushu University. In 2002, he joined Global Nuclear Fuel – Japan (GNF-J) and was seconded to NFD in 2004 to conduct R&D of nuclear fuels. He is responsible for R&D of LWR fuel claddings, the decommissioning of Fukushima-Daiichi NPP, and the mechanical testing and analysis of irradiated nuclear fuel materials.

– Wenjing WANG (*Branch of Nuclear Power Operation and Application Technology, Chinese Nuclear Society and China Nuclear Energy Industry Corporation*)

Dr. Wenjing Wang is a Senior Engineer and currently serves as Director of the Science, Quality, and Informatization Department at China Nuclear Energy Industry Corporation (CNEIC). She holds a Doctor of Philosophy (Ph.D.) in Nuclear Science and Technology from Tsinghua University.

Dr. Wang boasts a comprehensive career spanning academic research and industrial management. After obtaining her Ph.D. in Nuclear Science and Technology, she joined CNEIC. Over the years, she has demonstrated outstanding management capabilities and operational expertise and held a series of core management positions. She previously served as Deputy Director of the Strategic Planning and Business Operation Department. In 2025, she was appointed as Director of the Science, Quality, and Informatization Department.

In recognition of her profound expertise in the nuclear industry, Dr. Wang also acts as an Executive Director of the 2nd Council of the Branch of Nuclear Power Operation and Application Technology under the Chinese Nuclear Society (CNS). She actively advances technological innovation and academic exchanges within the field of nuclear power operation technology.

– Jae-Don CHOI (*Korean Nuclear Society and KEPCO Nuclear Fuel*)

Mr. Jae-Don Choi is a Senior Executive Vice President & Chief Technology Officer of the KEPCO Nuclear Fuel (KNF), having responsibilities for the nuclear fuel and reactor core design, advanced technology development of nuclear fuel and core design in KNF. He has been working in the KNF since 1990 and has great experience in performing safety analysis, improving the safety of nuclear power plants. He has also participated in national R&D projects for developing safety analysis methodology and enhancing nuclear safety. Additionally, he plays an active role in several government committees responsible for planning and reviewing national nuclear R&D programs. He earned Master's Degree in Nuclear Engineering from Korea Advanced Institute of Science and Technology in 1990.

– **Thomas Heinz WIESE** (*European Nuclear Society and Framatome*)

Thomas Wiese is ENS VP and Framatome engineer with 20 years in fuel services. Based in Sweden, he advises projects supporting the nuclear ecosystem.

– **Daniel M WACHS** (*Idaho National Laboratory*)

Dr. Wachs is a directorate fellow in the Idaho National Laboratory's Nuclear Fuels and Materials Division. He has led a wide variety of advanced nuclear fuel research activities, including irradiation testing, post-irradiation examination, fuel performance modeling, fuel fabrication, and nuclear fuel technology licensing over his 25 year career at INL.

Dr. Wachs has been the National Technical Director for the U.S. DOE Advanced Fuels Campaign since 2021. In this role he is responsible for the full DOE-NE nuclear fuel R&D portfolio including the Accident Tolerant Fuels (LWR), metallic alloy fuel (SFR), TRISO (AGR), salt fuel (MSR), and long-term innovative fuels programs.

From 2011-2020 he was the scientific lead for the U.S. 'Resumption of Transient Testing' program that ultimately led to restart of the TREAT reactor in 2017 and established its R&D program. Today, a broad range of nuclear technology R&D programs use the facility to support a diverse community of scientists and engineers.

From 2004-2014, he led the US R&D program tasked with development of high density LEU fuel systems to enable conversion of research and test reactors worldwide from HEU to LEU.

Track VII - ① - Metallic Fuel Fabrication & FCCI , 14:00-15:30*Venue Room-1 (Hall)**Chairs Caleb Patrick MASSEY , Adrien TERRICABRAS*

Time	Paper	Speaker	Affiliation	Country/Region
14:00 14:20	Experimental Evaluation of Eutectic Reaction Rates of U-Zr-Fe and U-Pu-Zr Alloys with Stainless Steel for Accidents Analysis of Metal-Fueled Sodium-Cooled Fast-Reactor	Takumi Sato	Japan Atomic Energy Agency	Japan
14:20 14:40	Laser additive manufacturing of uranium-zirconium metallic fuel: Rapid solidification and layer-by-layer fusion of uranium-8 wt% zirconium	Abhi Ghosh	Canadian Nuclear Laboratories	Canada
14:40 15:00	Radiation-Resilient Y ₂ O ₃ /CrY Multilayer Diffusion Barriers for FCCI Mitigation: Long-Term Compatibility Studies	Abdellatif Yacout	Argonne National Laboratory	United States
15:00 15:20	Co-extrusion U-10Mo Alloy Fuel with FCCI Diffusion Barrier for Sodium Fast Reactor Application	Yachun Wang	Idaho National Laboratory	United States

Track III - ① - ATF Development Programs , 14:00-15:30*Venue Room-2 (Meeting Room 1&2)**Chairs Yuji OKADA , David KERMERMAN*

Time	Paper	Speaker	Affiliation	Country/Region
14:00 14:20	WESTINGHOUSE EnCore®* ACCIDENT TOLERANT FUEL AND HIGH ENERGY PROGRAM – FROM TESTING TO PRODUCT	Edward Lahoda	Westinghouse Electric Company LLC	United States
14:20 14:40	PROtect: The E-ATF solution by Framatome – overview of recent achievements and next steps	Nicolas Vioujard	Framatome	France
14:40 15:00	Overview of research and development on innovative fuels for LWRs at CEA : historical developments and recent advancements	Jean-Mathieu Vanson	CEA	France
15:00 15:20	Experimental, Modelling, and Advances in Safety Case Assessment for Accident Tolerant Fuels: Outcomes of IAEA Projects and Technical Meetings	Martin Sevecek	International Atomic Energy Agency	Austria

Track IV - ① - Verification with PIE Database I , 14:00-15:30*Venue Room-3 (Meeting Room 3)**Chairs Yutaka UDAGAWA , HyoChan KIM*

Time	Paper	Speaker	Affiliation	Country/Region
14:00 14:20	Modeling of Full-Length Fuel Rods for the LEDA Experiment	Christoph Jagfeld	BGZ Gesellschaft für Zwischenlagerung mbH	Germany
14:20 14:40	EXTENSION OF GALILEE FUEL PERFORMANCE CODE TO ACCIDENT SCENARIOS – APPLICATION TO FUEL FRAGMENTS DISPERSAL IN LOCA	Xavier Haller	Framatome SAS	France

14:40	15:00	Preliminary analyses of impact of microstructural heterogeneity in MOX fuel on fuel temperature evaluation	Yudai Tasaki	Japan Atomic Energy Agency	Japan
15:00	15:20	Progress and Perspectives on TESP-ROD: Capabilities, Latest Enhancements, and Verification Status	Jonathan Sappl	Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) gGmbH	Germany

Track I - ① - New fuel assembly design , 14:00-15:30

Venue Room-4 (Meeting Room 4)

Chairs Masao OWAKI , Aaron William COLLDEWEIH

Time		Paper	Speaker	Affiliation	Country/Region
14:00	14:20	From Type C to Type HC-2025: Evolution of Westinghouse Fuel Assembly Design for Japanese PWR	Yuriy Aleshin	Westinghouse Electric Co.	United States
14:20	14:40	Solutions in New Fuel Design Deployment: TRITON11® Lead Use Assemblies for Peach Bottom Unit 3	Brian Kleinfeldt	Westinghouse Electric Company	United States
14:40	15:00	Framatome's ATRIUM 11 BWR Fuel Assembly: Update on Operating Experience and Advanced Fuel Management	Steven Cole	Framatome Inc.	United States
15:00	15:20	GNF-A Annual Fuel Performance Review 2026 and Assessment for ATF Deployments	Ian E Porter	Global Nuclear Fuel - Americas	United States

Track VII - ② - Advanced Reactor Core & Fuel Design , 15:35-16:45

Venue Room-1 (Hall)

Chairs Shun HIROOKA , Yasunari SHINOHARA

Time		Paper	Speaker	Affiliation	Country/Region
15:35	15:55	Burnable Poison Selection and Analysis of PWR Assemblies Containing Lightbridge Fuel™	Christopher Kirby	Lightbridge Corporation	United States
15:55	16:15	A Preliminary Core Design for the NQ150 LFR using Serpent 2 Monte Carlo Code	Geunyoung Choi	Hanyang University	Republic of Korea
16:15	16:35	Framatome's Innovative Reactor Fuel Hub : advancing Fuel solutions for Advanced Modular Reactors	Olivier Tougait	Framatome	France

Track III - ② - Coated Cladding Development for BWR , 15:35-16:45*Venue Room-2 (Meeting Room 1&2)**Chairs Afiqa MOHAMAD , Dong-Joo KIM*

Time		Paper	Speaker	Affiliation	Country/Region
15:35	15:55	Westinghouse BWR Coated Cladding Development	Johan Nyman	Westinghouse Electric Sweden AB	Sweden
15:55	16:15	PROtect BWR: The evolutionary E-ATF solution by Framatome for Boiling Water Reactors	Karl Buchanan	Framatome SAS	France
16:15	16:35	Development of CrAlOx vs YAlOx Multilayer Coatings for Enhanced Corrosion of Zircaloy Claddings under BWR and LOCA Conditions	Sumit Bhattacharya	Argonne National Laboratory	United States

Track VI - ① - Fuel Cycle Strategies , 15:35-16:45*Venue Room-3 (Meeting Room 3)**Chairs Hatice AKKURT , Ryo ISHIBASHI*

Time		Paper	Speaker	Affiliation	Country/Region
15:35	15:55	Orano's recycling Solutions for current and new reactors (including SMRs and AMRs)	Cécile Evans	Orano	France
15:55	16:15	Developing a Light-Water-Reactor Multi-Recycling System with MOX-MR fuel product	Guillaume VAAST	EDF Nuclear Fuel Division	France
16:15	16:35	Harnessing Actinide-Ligand Interactions and Lanthanide Contraction for Advanced Nuclear Fuel Cycle Separations	Ilja Popovs	University of Tennessee	United States

Track I - ② - Corrosion and hydrogen pickup , 15:35-16:45*Venue Room-4 (Meeting Room 4)**Chairs Kan SAKAMOTO , Aaron William COLLDEWEIH*

Time		Paper	Speaker	Affiliation	Country/Region
15:35	15:55	Development and Irradiation Experience of Global Fuel Cladding HiFi®	Masao Owaki	Toshiba Corporation	Japan
15:55	16:15	Cladding hydrogen pickup in Nordic BWRs	David Schrire	Studsvik Nuclear AB	Sweden
16:15	16:35	Transition in Long-Term Corrosion Kinetics: Multi-Method Characterization of Pre-Transition and Transition Stages	Jakub Krejci	UJP PRAHA a.s./ Czech Technical University	Czechia

Track II - ① - Fuel Product Development & Deployment , 17:00-18:50

Venue Room-1 (Hall)

Chairs Daiki SATO , Zeses KAROUTAS

Time	Paper	Speaker	Affiliation	Country/Region
17:00 17:20	Overview of AluminoSilicate Dopant Pellet Development in Japan	Junji Matsunaga	Global Nuclear Fuel-Japan Co., Ltd.	Japan
17:20 17:40	GNF4 Fuel Development: Design Evaluation, Testing, and Lead Use Assemblies	Weston Cundiff	Global Nuclear Fuel	United States
17:40 18:00	Introduction of Advanced Fuel Features at NFI	Yuka Fukumoto	Fuel Engineering and Development Department, Engineering Division, Nuclear Fuel Industries, Ltd	Japan
18:00 18:20	M-ReX™ Fuel Assembly: Enhancements in Seismic Resistance, Thermal-Hydraulics performance, and Reliability	Yuki Shimizu	Mitsubishi Heavy Industries, Ltd	Japan
18:20 18:40	Update on Licensing and Manufacturing Readiness for Framatome's Advanced Fuel Management Solution for Increased Enrichment and Burnup	Chad King	Framatome Inc	United States

Track IV - ② - Fuel Performance Code I , 17:00-18:50

Venue Room-2 (Meeting Room 1&2)

Chairs Nathan CAPPs , Isamu SATO

Time	Paper	Speaker	Affiliation	Country/Region
17:00 17:20	Hierarchical MH-within-Gibbs Calibration of Fuel Performance Models Using Halden Time-Series Data with Explicit Treatment of Model Prediction Uncertainty	Gustav Robertson	Westinghouse Electric Sweden AB/ Uppsala University	Sweden
17:20 17:40	Development of PCMI Contact and Friction Models in the FEM-Based Fuel Performance Code MERCURY	Dong-Hwa Lee	Korea Atomic Energy Research Institute	Republic of Korea
17:40 18:00	Analysis of High Burnup PWR Spent Fuel Behavior with Plant Data by FRAPCON-4	Wan-Yun Li	National Atomic Research Institute	Taiwan
18:00 18:20	Simulation of High Burnup Fuel Rod Performance and Reactor Operation Using Multiphysics Code Systems	Liping Cao	Westinghouse Electric Company LLC	United States
18:20 18:40	A modern approach for the integral assessment of the TRANSURANUS code	Pau Aragón	European Commission - Joint Research Centre	Germany

Track VI - ② - Criticality Safety , 17:00-18:50*Venue Room-3 (Meeting Room 3)**Chairs Joseph FALDOWSKI , Masumi WATARU*

Time		Paper	Speaker	Affiliation	Country/Region
17:00	17:20	Thermal neutron scattering analysis of organic solvents for future criticality safety evaluations in fuel reprocessing	Shoichiro Okita	University of Fukui	Japan
17:20	17:40	Criticality safety assessment for the CHALMEX process using Monte Carlo neutron transport calculations	Letizia Di Matteo	Chalmers University of Technology	Sweden
17:40	18:00	Development of a SNF database for the Swiss Deep Geological Repository	Dimitri Rochman	Nagra	Switzerland
18:00	18:20	Evaluation of Similarity Analysis Tools for Critical Experiment Selection for Spent Fuel Pool Analysis	Michael Wenner	Westinghouse Electric Company LLC	United States
18:20	18:40	Spent Fuel Pool Free-Standing and In-Rack Assembly Storage Considerations for PWR LEU+ Fuel	Christopher Briggs	Westinghouse	United States

Track V - ① - Fuel Safety Research Supporting Accident Management and Regulation ,17:00-18:50*Venue Room-4 (Meeting Room 4)**Chairs Mahmut N. CINBIZ , Jinya KATSUYAMA*

Time		Paper	Speaker	Affiliation	Country/Region
17:00	17:20	A numerical sensitivity analysis of the criticality prediction method using activities of noble gas isotopes for the criticality monitoring of the Fukushima Daiichi Nuclear Power Plant Unit-3.	Eka Sapta Riyana	Japan Atomic Energy Agency (JAEA)	Japan
17:20	17:40	Fuel Fragmentation, Relocation, and Dispersal in Thirteen Integral LOCA Tests on High-Burnup Fuel: Results from the SCIP III Project	Per Magnusson	Studsvik Nuclear AB	Sweden
17:40	18:00	Behavior of Cr-coated Zr-based alloy sheathed UO ₂ fuel under a reactivity-initiated accident-simulated condition	Yoshinori TANIGUCHI	Japan Atomic Energy Agency	Japan
18:00	18:20	Development of an Elevated Temperature Hydraulic Cladding Burst Testing System	Philip Petersen	Idaho National Laboratory	United States
18:20	18:40	Qualification of instrumented fuel pin testing in BR2 for the Power to Melt and Maneuverability (P2M) project	Rik-Wouter Bosch	SCK CEN	Belgium

Wednesday, 14th October, 2026

Track IV - ③ - AI Application for Nuclear Fuel , 8:30-10:20

Venue Room-1 (Hall)

Chairs HyoChan KIM , Junji MATSUNAGA

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	MACHINE LEARNING TECHNIQUES FOR THE OPTIMIZATION OF LIGHT WATER REACTOR FUEL MANAGEMENT	Johan Hammarström	Westinghouse Electric Company	Sweden
8:50	9:10	Implementation of AI based solutions in Framatome FUEL activities	Johann Plancher	Framatome SAS	France
9:10	9:30	Westinghouse Fuel Vision – Next Generation AI Application for Visual Inspections	Björn Andersson	Westinghouse Electric Sweden AB	Sweden
9:30	9:50	Development of a Surrogate Model for the study of Pellet-Cladding Mechanical Interaction in Light Water Reactors	Alessia Foschini	Università di Bologna	Italy
9:50	10:10	Molecular Dynamics Study of Cs Diffusion in UO ₂ Using a Machine Learning Interatomic Potential	Jiwoo Kim	KAIST	Republic of Korea

Track II - ② - Fuel Material Design & Future Fuel Concepts , 8:30-10:20

Venue Room-2 (Meeting Room 1&2)

Chairs Ryosuke OZEKI , Zeses KAROUTAS

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Development of Hydration-Resistant Gadolinium-Based Burnable Absorbers by CeO ₂ Addition	Hyeongjin Kim	Korea Atomic Energy Research Institute	Republic of Korea
8:50	9:10	Interdiffusion behavior between UO ₂ and Gd ₂ O ₃ during the Sintering Process	Jae Ho Yang	Korea Atomic Energy Research Institute	Republic of Korea
9:10	9:30	Hydration Analysis of Zr-doped Gd ₂ O ₃ Burnable Absorber	Hyeongju Bae	KAIST	Republic of Korea
9:30	9:50	Development and Pre-Irradiation Evaluation of LEU+ and ATF Fuel Pellets	Dong Seok Kim	Korea Atomic Energy Research Institute	Republic of Korea
9:50	10:10	Accident Tolerant Fuel UN doped with SiC: A Microstructural Analysis	Jhonathan Rosales	NASA	United States

Track VII - ③ - TRISO Fuel Performance , 8:30-10:20*Venue Room-3 (Meeting Room 3)**Chairs Odtsetseg MYAGMARJAV , Christopher REISER*

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	BISON Predictions of UN TRISO Performance and Comparison with UCO UnderSteady-State Irradiation Conditions	Carlotta Giuliana Ghezzi	Idaho National Laboratory	United States
8:50	9:10	Development and Validation of an In-House TRISO Fuel Performance Code	Zhi Zheng Goh	Singapore Nuclear Research and Safety Institute	Singapore
9:10	9:30	TRISO Fuel Performance in OFFBEAT: CRP-6 Benchmark Validation and a Prototype Multi-Scale Compact Coupling	Alessandro Scolaro	Paul Scherrer Institute	Switzerland
9:30	9:50	PEGASUS-TRISO Modeling Enhancements and Benchmark Validation	Wenfeng Liu	Structural Integrity Associates, Inc.	United States

Track I - ③ - Operational and irradiation experiences (1) , 8:30-10:20*Venue Room-4 (Meeting Room 4)**Chairs William GASSMANN , Petra Britt HOFFMANN*

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	A BWR dryout event in Forsmark 2 and proposed fuel reuse criteria	Barbara Somfai	Vattenfall Nuclear Fuel AB	Sweden
8:50	9:10	PCI with a Missing Pellet Surface - a Case Study	David Schrire	Studsvik Nuclear AB	Sweden
9:10	9:30	Advanced designs and multiphysics methodologies for fuel assembly bow mitigation strategies	Anaik Poulat	Framatome	France
9:30	9:50	Advancing the Preservation and Integration of Experimental Fuel Performance Data: The Work of the IFPE Task Force	Kenta Inagaki	OECD-NEA	France

Track V - ② - High-burnup Fuels , 8:30-10:20*Venue Room-5 (Meeting Room 5)**Chairs Kazuo KAKIUCHI , Tatsuya SASAKAWA*

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Microstructural Evolution of High-Burnup UO ₂ Fuel Using EBSD	Aaron Colldeweih	Idaho National Laboratory	United States
8:50	9:10	Evaluation of Heating Rate and Internal Pressure on the Cladding Behaviors of High-Burnup Zirconium Fuel Rods during Postulated Loss-of-Coolant Accidents	Yong Yan	Oak Ridge National Laboratory	United States
9:10	9:30	Approach to the Impact Evaluation of FFRD during LOCA in High Burnup Fuel on Japanese PWRs	Masaaki Yamato	Mitsubishi Heavy Industries Ltd.	Japan
9:30	9:50	Oxidation behavior of Cr-coated Zry in High Temperature Steam Studied by Thermogravimetry	Hai Pham	Japan Atomic energy Agency	Japan

9:50	10:10	Alternative Licensing Strategy for Addressing Fuel Fragmentation, Relocation, and Dispersal Issues in Pressurized Water Reactor Loss-of-Coolant Accidents	Kurshad Muftuoglu	Electric Power Research Institute	United States
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Track IV - ④ - Verification with PIE Database II , 10:35-12:05

Venue Room-1 (Hall)

Chairs Isamu SATO , Shigeru KUREMATSU

Time	Paper	Speaker	Affiliation	Country/Region
10:35 10:55	Simulation of the Opt. ZIRLO rod in the Halden IFA-741 cladding creep experiment by TRANSURANUS	Katalin Kulacsy	Czech National Radiation Protection Institute	Czechia
10:55 11:15	Improvement and V&V of the FINE4 Code for Mitsubishi PWR Fuel Design	Kenichiro Furumoto	Mitsubishi Heavy Industries	Japan
11:15 11:35	Empirical Formulations for Evaluating Hydrogen Content in Zirconium Alloy Fuel Cladding based on a compiled PIE database	Akihiro Yamauchi	Nuclear Regulation Authority/The University of Osaka	Japan
11:35 11:55	Experimental Characterisation and Numerical Modelling of CRUD formed under PWR conditions	Dora Capone	Paul Scherrer Institut	Switzerland

Track III - ③ - LTA and PIEs of ATF , 10:35-12:05

Venue Room-2 (Meeting Room 1&2)

Chairs Afiqa MOHAMAD , Robert S. HANSEN

Time	Paper	Speaker	Affiliation	Country/Region
10:35 10:55	Progress and Achievements of the Accident Tolerant Fuels Lead Test Assembly Program at Constellation Nuclear	William Gassmann	Constellation Nuclear	United States
10:55 11:15	Poolside Inspection and First-of-a-Kind Considerations for Operation of High Burnup EnCore® Cr-Coated Fuel Rods in Byron Unit 2	Jorie Walters	Westinghouse Electric Company	United States
11:15 11:35	Non-destructive post-irradiation examination of Cr-coated Accident Tolerant Fuel (ATF) Lead Test Rods (LTRs) irradiated in the Byron Nuclear Generating Station	William Alexander Hanson	Idaho National Laboratory	United States
11:35 11:55	Post Irradiation Examination and Safety Testing of Westinghouse EnCore® Accident Tolerant Cr-Coated and High Energy Fuels	Kyle Johnson	Westinghouse Electric Sweden AB	Sweden

Track VII - ④ - TRISO Irradiation & FP Behavior , 10:35-12:05*Venue Room-3 (Meeting Room 3)**Chairs Christopher REISER , Odtsetseg MYAGMARJAV*

Time	Paper	Speaker	Affiliation	Country/Region
10:35 10:55	Proposal for Optimising the Evaluation of Amoeba Effect in High-Temperature Gas-cooled Reactor Fuel	Masaki Yoshino	Japan Atomic Energy Agency	Japan
10:55 11:15	Matrix-Integrated Aluminosilicate Cs Getter for HTGR Fuel Forms without TRISO Particle Redesign	Koei Sasaki	Japan Atomic Energy Agency	Japan
11:15 11:35	Kernel Porosity of Irradiated AGR-2 TRISO Fuel	Harvey Ling	Idaho National Laboratory	Australia
11:35 11:55	Molecular Dynamics Simulation of Ag Diffusion in the SiC Coating of TRISO Fuel Particles Based on Machine Learning Potentials	Jiaxuan Liu	Harbin Engineering University	China

Track I - ④ - Operational and irradiation experiences (2) , 10:35-12:05*Venue Room-4 (Meeting Room 4)**Chairs Petra Britt HOFFMANN , Kan SAKAMOTO*

Time	Paper	Speaker	Affiliation	Country/Region
10:35 10:55	Operational and Design Experience with Localized Zinc-Rich Crud Mitigation at KKL	Jean-Marie Le Corre	Westinghouse Electric Sweden AB	Sweden
10:55 11:15	Studies of the fission-recoil hardened inner layer of LWR fuel cladding	Hanna Englund	Studsvik Nuclear AB	Sweden
11:15 11:35	Observation of Plutonium Rich Agglomerates in MOX Fuel Samples Irradiated over a Wide Range of Burnup	Yoshihiro Kubo	Nuclear Regulation Authority	Japan
11:35 11:55	ARGUS System for Comprehensive Analysis of Fuel Failures in WWER Power Units	Igor Evdokimov	SRC RF TRINITI	Russian Federation

Track V - ③ - Loss-Of-Coolant-Accidents , 10:35-12:05*Venue Room-5 (Meeting Room 5)**Chairs Joosuk LEE , Takafumi NARUKAWA*

Time	Paper	Speaker	Affiliation	Country/Region
10:35 10:55	High Burnup Loss-of-Coolant Accident Test Following an Unpressurized Heating Test	Nathan Capps	Oak Ridge National Laboratory	United States
10:55 11:15	Predicting the embrittlement of Cr-coated ATF cladding under prolonged external surface steam oxidation through mechanistic modeling of coating degradation	Dongju Kim	Seoul National University	Republic of Korea
11:15 11:35	Preliminary Assessment of Safety Margin Recovery of Chromium-Coated ATF Fuel during LOCA Conditions	Joosuk Lee	Korea Institute of Nuclear Safety	Republic of Korea
11:35 11:55	Fracture behavior of Cr-coated Zr-based alloy claddings under high-temperature LOCA conditions	Vu-Nhut Luu	Japan Atomic Energy Agency	Japan

Track IV - ⑤ - Fuel Performance Code II , 13:35-15:05*Venue Room-1 (Hall)**Chairs Yutaka UDAGAWA , Jérôme SERCOMBE*

Time		Paper	Speaker	Affiliation	Country/Region
13:35	13:55	Development of a Cumulative Damage Index (CDI) Model for PCI Failure Prediction in Smeared-Pellet Fuel Performance Codes and Its Application to the Safety Evaluation of a Load-Following PWR Core	Dongki Lee	Seoul National University, Gwanak-to 1, Gwanak-gu, Seoul 08826, Republic of Korea	Republic of Korea
13:55	14:15	CLADDING STRESS CALCULATION ON PWR FLEXIBLE POWER OPERATION	Carmen Muñoz	ENUSA INDUSTRIAS AVANZADAS S.M.E	Spain
14:15	14:35	A Novel Phase-Field Model for Simulating Fission Gas Bubble Behavior in UO ₂ Nuclear Fuel	Changhyun Jo	Seoul National University	Republic of Korea
14:35	14:55	Modeling dopant segregation at UO ₂ grain boundaries and its impact on fuel performance	Conor Galvin	Los Alamos National Laboratory	United States

Track III - ④ - Irradiation Effects on Cr Coated Cladding , 13:35-15:05*Venue Room-2 (Meeting Room 1&2)**Chairs Yuta SHIMOYAMA , Tian ZHANG*

Time		Paper	Speaker	Affiliation	Country/Region
13:35	13:55	Overview of Framatome and ORNL Collaborative Research on PROtect Cr-Coated Cladding	Mahmut Nedim Cinbiz	Oak Ridge National Laboratory	United States
13:55	14:15	POST-IRRADIATION EXAMINATIONS OF PROtect Cr CLADDING IRRADIATED UP TO 45 GWD AT THE INL ADVANCED TEST REACTOR	Jake Stockwell	Idaho National Laboratory	United States
14:15	14:35	Initial Examinations of ATF Cr-Coated MDA Claddings Irradiated in the INL Advanced Test Reactor	Robert Hansen	Idaho National Laboratory	United States
14:35	14:55	INVESTIGATION OF IRRADIATION EFFECTS ON CHROMIUM COATED CLADDING PERFORMANCE: INITIAL EVALUATION OF FUEL BEHAVIOR	Yuji Okada	Mitsubishi Heavy Industries, Ltd.	Japan

Track VII - ⑤ - MOX & TRU Fuel Evaluation , 13:35-15:05*Venue Room-3 (Meeting Room 3)**Chairs Adrien TERRICABRAS , Shuhei MIWA*

Time		Paper	Speaker	Affiliation	Country/Region
13:35	13:55	1.5D BISON Modeling and Bayesian Calibration of Metallic U-TRU Fuel Performance for Accelerated Fuel Qualification	Nicholas Fassino	Oklo Inc.	United States
13:55	14:15	Development of fabrication methods for MOX pellets with low O/M ratio	Shun Hirooka	Japan Atomic Energy Agency	Japan
14:15	14:35	Preliminary Validation of OFFBEAT Beginning-of-Life Irradiation Analysis Capabilities for Minor Actinide-bearing Fast Reactor MOX Fuels with the Am-1 Experiment	Karl Josef Xaver Sturm	École Polytechnique Fédérale de Lausanne	Switzerland
14:35	14:55	Integrated AI Approach for TRU Fuel Data Management and Gap Identification	Tiankai Yao	Idaho National Laboratory	United States

Track V - ④ - Fuel and Cladding Performance under RIA and LOCA Conditions , 13:35-15:05*Venue Room-4 (Meeting Room 4)**Chairs Tong LIU , Masaaki YAMATO*

Time		Paper	Speaker	Affiliation	Country/Region
13:35	13:55	Performance of M5Framatome cladding in RIA and LOCA	Romain Borrossi	Framatome SAS	France
13:55	14:15	Chrome-coated Cladding Performance during Reactivity-Initiated Accidents	Jason Lee Schulthess	Idaho National Laboratory	United States
14:15	14:35	Effect of chromium coating damage on the thermomechanical response of chromium-coated zirconium cladding tubes: experimental and numerical analyses	Ali Charbal	Université Paris-Saclay	France
14:35	14:55	Microstructural characterization of fuel prone to fragmentation in LOCA tests	Joakim Karl-Henrik Karlsson	Studsvik Nuclear AB	Sweden

Track II - ③ - Cladding Materials & Behavior , 13:35-15:05*Venue Room-5 (Meeting Room 5)**Chairs Jun ADACHI , Cristina Munoz-Reja RUIZ*

Time		Paper	Speaker	Affiliation	Country/Region
13:35	13:55	Oxidation behavior of Nb nanoclusters of the α -Zr(O) phase in reactor-irradiated Nb-doped PWR cladding	Fumihiro Nakamori	Central Research Institute of Electric Power Industry	Japan
13:55	14:15	Impact of Irradiation-Induced Damage on Corrosion and Alloy Element Behavior in Zircaloy 2	Katsuhito Takahashi	Hitachi, Ltd.	Japan
14:15	14:35	Different Hydrogen Effects on the Alpha to Beta Transition Temperature between PRXA and CWSR Zirconium Alloys	TIAN CHEN	Seoul National University	Republic of Korea
14:35	14:55	Operating Experience of Westinghouse's PWR Structural Material—Low Tin ZIRLO™ Alloy	Allison E DeAbreu	Westinghouse Electric Company	United States

Track IV - ⑥ - Integrated Code System , 15:20-16:50*Venue Room-1 (Hall)**Chairs Akiyuki TSUCHIYA , Nathan CAPPS*

Time		Paper	Speaker	Affiliation	Country/Region
15:20	15:40	Advances and Innovations in Framatome Fuel Codes and Methods	Olga Dutkiewicz	Framatome GmbH	Germany
15:40	16:00	Westinghouse's Next-Generation Computer Codes for Boiling Water Reactor Applications	Antonios Mylonakis	Westinghouse Electric Sweden AB	Sweden
16:00	16:20	Recent Development of Westinghouse Simplified RAVE Code System for Extended PWR Design Applications	Akinori Giho	Westinghouse Electric Company	United States
16:20	16:40	AI-Enabled Data-Driven Digital Twin Framework for Advanced Reactor Fuel Qualification and Lifecycle Management	Pavel Tsvetkov	Texas A&M University	United States

Track III - ⑤ - Mechanical behavior of Cr-Coated Cladding , 15:20-16:50*Venue Room-2 (Meeting Room 1&2)**Chairs Yuji OKADA , Robert S. HANSEN*

Time		Paper	Speaker	Affiliation	Country/Region
15:20	15:40	Micro-mechanical investigation on ion-irradiated Cr-coated MDA cladding	Afiqa Mohamad	Japan Atomic Energy Agency	Japan
15:40	16:00	Influence of Chrome Coating on Mechanical Properties of Zircaloy Cladding at PWR Operating Temperatures	David Kamerman	Idaho National Laboratory	United States
16:00	16:20	Microstructural Evolution and Cracking of PVD Chromium Coatings on Zirconium Alloys at High Temperature	Léa Duffaut	ASNR	France
16:20	16:40	Effects of coating process on LOCA burst and high-temperature oxidation behaviors of Cr-coated cladding	Takahiro Ayukai	MHI Nuclear Development Corporation	Japan

Track VII - ⑥ - Fast Reactor Structures & Materials , 15:20-16:50*Venue Room-3 (Meeting Room 3)**Chairs Shuhei MIWA , Yasunari SHINOHARA*

Time		Paper	Speaker	Affiliation	Country/Region
15:20	15:40	Development Status of an In-House Core Assembly Bowing Analysis Code for the Korean Small Modular Sodium-Cooled Fast Reactor	Heungsoo Lee	Korea Atomic Energy Research Institute	Republic of Korea
15:40	16:00	Quantification of Spectrum Effects in HT-9 Steel using Microstructures from Multiple Fast Reactor and Thermal Reactor Test Facilities	Stephen Taller	Oak Ridge National Laboratory	United States
16:00	16:20	Characterization of Advanced Cladding Candidate Materials for Irradiation in the High Flux Isotope Reactor	Caleb Patrick Massey	Oak Ridge National Laboratory	United States
16:20	16:40	Efficient calculations of sensitivity coefficients to fuel swelling in Monte Carlo k-eigenvalue simulations	Theophile Bonnet	University of Cambridge	United Kingdom

Track VI - ③ - Fuel Pellet Behavior , 15:20-16:50*Venue Room-4 (Meeting Room 4)**Chairs Ricardo TORRES , Joakim KARLSSON*

Time		Paper	Speaker	Affiliation	Country/Region
15:20	15:40	Oxidation behavior of irradiated ATFs under representative dry interim storage conditions and comparison with irradiated UO ₂	Abel Milena-Pérez	Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas	Spain
15:40	16:00	Effect of time and temperature on spent nuclear fuel oxidation	LUSTOLDE MARTINEZ LAORDEN	ENUSA Industrias Avanzadas S.M.E.	Spain

Track II - ④ - Fuel Behavior, Performance & PIE , 15:20-16:50*Venue Room-5 (Meeting Room 5)**Chairs Daiki SATO , Guirong PAN*

Time		Paper	Speaker	Affiliation	Country/Region
15:20	15:40	High-Temperature In Situ XRD-XAFS Revealing the Breakdown of Structural Coherence in UO ₂ -ZrO ₂ near 2000 K	Ayumi Itoh	Institute of Science Tokyo	Japan
15:40	16:00	Progress on an Instrumented Irradiation Rig for In-Situ Thermal Conductivity and Fission Gas Release Measurements on Miniature Fuel Specimens	Jacob Gorton	Oak Ridge National Laboratory	United States
16:00	16:20	Advancing the PCI Resistance of BWR Fuel	Jesper Kierkegaard	Westinghouse Electric Sweden AB	Sweden
16:20	16:40	Initial Postirradiation Examination of Boiling Water Reactor Fuel Rods with Standard and Gadolinia Fuel	Jason M Harp	Oak Ridge National Laboratory	United States

Poster Session, 16:50-18:30**Venue Room-1 (Hall)****Track I - Poster**

Poster	Presenter	Affiliation	Country/Region
SCEF Prototype for Optimizing the End-of-Life Cycle of PWR	Seungbeom Son	KEPCO Nuclear Fuel	Republic of Korea
Multi-objective Simulated Annealing based Optimization of Control Rod Design for Soluble-Boron-Free Operation	Woojin Lee	Hanyang University	Republic of Korea
Frequency-Domain Oscillation Analysis of Levitated Molten Droplets for Thermophysical Property Evaluation of Metallic Fuel Systems	Yuji Ohishi	The University of Osaka	Japan

Track II - Poster

Poster	Presenter	Affiliation	Country/Region
Phase Diagram for Nano-Grained Oxide and Mixed Oxide Fuels	Taishi Kobayashi	Kyoto University	Japan
Mechanical Integrity and Microstructural Evolution of High Density Research Reactor Fuel Plate after High-Burnup irradiation.	Dong Jun Park	Korea Atomic Energy Research Institute	Republic of Korea
Feasibility Study on Reducing Copper Shell Thickness of KBS-3V Canisters under KJ Bentonite Swelling Pressure	Gil-Eon Jeong	Hanbat National University	Republic of Korea

Track III - Poster

Poster	Presenter	Affiliation	Country/Region
Innovative Inherent Safety Fuel Assemblies Composed of SiC Block "KAMADO-BWR & -PWR"	Tetsuo MATSUMURA	PowerM	Japan
A Review of Hydriding Mitigation of Cr coatings for Zirconium-alloy Cladding	Ganghyeon Bae	Pohang University of Science and Technology	Republic of Korea
Comprehensive Performance Testing and Study of Cr-coated Zr-Sn-Nb Alloy ATF Fuel Cladding	Anzhou Qi	China nuclear power engineering Co.,Ltd.	China
High-Temperature Tensile Behavior and Elongation Characteristics of Chromium-Coated Zirconium Cladding	JAE-HAN KIM	Korea Atomic Energy Research Institute	Republic of Korea

Track IV - Poster

Poster	Presenter	Affiliation	Country/Region
Development and Verification of an Explicit OpenMC-CINDER90 Tight-Coupling Methodology for PWR Fuel Depletion: Multigroup Approximation Accuracy Budget Validated on Takahama-3	Mary Hosseini	Technical University of Munich	Germany
Comparative Study of a Creep-Based Deformation Model and BALON2 in FRAPTRAN for FFRD Analysis	Changhwan Shin	Korea Atomic Energy Research Institute	Republic of Korea

Viscosity-based approach for 1F corium debris flow modelling using OpenFOAM	Anton Pshenichnikov	Japan Atomic Energy Agency	Japan
Computational Methodology for Helios-Serpent Code-to-Code Comparison of Cruciform Fuel Pin Geometry	Matilda Aberg Lindell	Lightbridge Corporation	United States
Fuel Performance R&D for regulatory support in Korea	Yongsik Yang	Korea Atomic Energy Research Institute	Republic of Korea
POLCA8 Control Blade Depletion Benchmark against Hot Cell data	Brandon Drusbasky	Westinghouse Electric Company	United States
Evaluation of Stress Effects on Cladding Due to Missing Pellet Surface (MPS) in Pellet-Cladding Interaction (PCI) Using 3D Finite Element Analysis	Hun Jang	KEPCO Nuclear Fuel	Republic of Korea
Advances in Westinghouse PWR Reactor Physics Modeling Technology	Gary Mangham	Westinghouse Electric Company	United States
Evaluation of physical properties of actinide dioxide using machine-learning molecular dynamics	Hiroki Nakamura	Japan Atomic Energy Agency	Japan
Advanced Calculation Tools to Simulate Fuel Fragment Relocation and Dispersal in Loss Of Coolant Accident Scenarios	Bruno Collard	CEA	France
Control Element Assembly Behavior Under Normal and Flexible Power Operation Conditions	Leo Alves Carrilho	Westinghouse Electric Company	United States
VALIDATION OF SRSS RESPONSE COMBINATION FOR NONLINEAR BWR FUEL ACCIDENT ANALYSIS USING MONTE CARLO TIME-PHASING	Benoit DULAROY	Framatome	United States

Track V - Poster

Poster	Presenter	Affiliation	Country/Region
Effects of secondary hydriding on embrittlement and fracture characteristics of Cr-coated Zr-based alloy cladding under LOCA conditions	Thi Huong Nguyen	Japan Atomic Energy Agency	Japan
Analysis of Fuel Cladding Behavior during Power Ramps via EDC Tests	Jung Ju Lee	Korea Atomic Energy Research Institute / Chungnam National University	Republic of Korea
Research capabilities of the PALLAS reactor	Steven Knol	NRG PALLAS	Netherlands

Track VI - Poster

Poster	Presenter	Affiliation	Country/Region
Mitigation of CISC and Automated Preservice Inspection for Dry Storage Canisters: Implementation and Compliance with ASME Code Case N-860	HSIAO-MING TUNG	National Atomic Research Institute	Taiwan
A Regulatory Perspective on Geopolymer Waste Forms for Managing 99Tc Uncertainties in Spent Fuel Disposal	Jinmo Ahn	Korea Institute of Nuclear Safety	Republic of Korea
Investigation of Measures for the Stable Storage of Fuel Debris -Investigations on Degradation of Hydrogen-Oxygen Recombination Catalysts Due to Wetting, and Study on Effective Anti-Wetting Measures-	Kyoma Tsuden	Tokyo City University	Japan

Dry Cask Spent Fuel Storage at JAPC Tokai No.2 Power Station	Takumi Ogawa	Japan Atomic Power Company	Japan
Accelerated Oxidation Study on Zircaloy-4 Cladding for CANDU Spent Fuel Dry Storage Stability	Joonho Moon	Korea Atomic Energy Research Institute	Republic of Korea
Fracture Parameters Estimation of Spent Nuclear Fuel Cladding with Reoriented Hydrides using Multi-Objective Approach	Sanghoon Lee	Keimyung University	Republic of Korea
Recent Progress of R&D on Nitride Fuels for Transmutation of Minor Actinides in JAEA	Toma Iwasa	Japan Atomic Energy Agency	Japan

Track VII - Poster

Poster	Presenter	Affiliation	Country/Region
Design of a forced convection molten chloride salt loop for testing instrumentation reliability under dynamic flow conditions of advanced reactor.	Yundong Lee	Hyundai Engineering & Construction	Republic of Korea
Irradiation Performance and Qualification of High-Density Atomized U3Si2 Dispersion Fuel at KAERI	Tae Won Cho	Korea Atomic Energy Research Institute	Republic of Korea
Introduction on the Progress of R&D Projects in Decommissioning of Nuclear Facility in Korea	Jungjoon Lee	Korea Institute of Nuclear Safety	Republic of Korea
Implementation of the GRSIS fission gas release model in a metal fuel performance analysis code	Cheol Min Lee	Korea Atomic Energy Research Institute	Republic of Korea
Evaluation of Nuclear Characteristics and Non-proliferation of Th-Pu Fuel in HTGRs for Plutonium Reduction	Nanami Nakao	University of Fukui	Japan
Development of NuCoT for the Prismatic-type Reactor	Tzung-Yi Lin	Radiation Protection Association	Taiwan
A Monte Carlo-Based Methodology for Molten Salt Reactor Fuel Cost Evaluation and Its Implications for Marine Reactor Economics	Jongwoo Lee	Hyundai Engineering & Construction	Republic of Korea
Development of the Low-Enriched Fuel Fabrication Facility (LEFFF) at Los Alamos National Laboratory	Adrien Terricabras	Los Alamos National Laboratory	United States

Banquet sponsored by Westinghouse, 19:00-21:00
(Pacific Garden Shinagawa)

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Thursday, 15th October, 2026

Track III - ⑥ - Performance under High Temperature Conditions , 8:30-10:20

Venue Room-1 (Hall)

Chairs Yuji OKADA , Tian ZHANG

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Air oxidation of Cr-coated Zircaloy-4	Diana Bachurina	Karlsruhe Institute of Technology	Germany
8:50	9:10	Integral Investigation of Air Ingress Effects on Chromium-Coated Fuel Rods in the CODEX-ATF-AIT Experiment	Róbert Farkas	HUN-REN Centre for Energy Research	Hungary
9:10	9:30	Practical Safety Benefits of Cr-coated ATF Cladding: Constraints from Post-quench Ductility and Post-burst Degradation	SungHoon Joung	Seoul National University	Republic of Korea
9:30	9:50	Recent Development of Steady State and Ramp Testing Capabilities for ATF at INL	Chuting Tsai	Idaho National Laboratory	United States

Track IV - ⑦ - Modeling for Advanced Technology Fuels (ATF) I , 8:30-10:20

Venue Room-2 (Meeting Room 1&2)

Chairs Shigeru KUREMATSU , Yuji OHISHI

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Preliminary Study on Thermal Homogenization and Local Temperature Reconstruction of Fully Ceramic Microencapsulated Fuel	Linyi Yang	École Polytechnique Fédérale de Lausanne (EPFL)	Switzerland
8:50	9:10	Development and Application of Hydrogen-Based Limits for Advanced Fuel Products to Support High Energy Fuel Operation	Timothy Crede	Westinghouse Electric Company	United States
9:10	9:30	Lightbridge Irradiation Testing and Fuel Performance Modeling Plan for Fuel Qualification	Kyle Paaren	Lightbridge Corporation	United States
9:30	9:50	Applicability of U-Zr Metallic Fuel for Light Water SMRs: Thermo-Mechanical Behavior Analysis using FEMAXI-7	Keizo Matsuura	Fukui University of Technology	Japan

Track VII - ⑦ - Molten Salt Reactor Fuels , 8:30-10:20

Venue Room-3 (Meeting Room 3)

Chairs Shun HIROOKA , Yasunari SHINOHARA

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Development of the Molten Salt Irradiation Research Testbed (MSIRT) for In-Pile Evaluation of Fuel-Salt Performance and Structural Material Compatibility	Kenneth Cooper	Oak Ridge National Laboratory	United States
8:50	9:10	Expedited synthesis of UCl ₃ using uranium hydride and ammonium chloride	Hogyu Yi	Ulsan National Institute of Science and Technology	Republic of Korea
9:10	9:30	Fuel Performance and Hydrogen Redistribution Modelling for U-ZrHx in a Graphite-Free AGR-like FHR	Alejandra de Lara	University of Cambridge	United Kingdom

9:30	9:50	Assessing transient performance of uranium-zirconium hydride fuel in fluoride salt-cooled reactors	Viktoriia Hozhyk	University of Cambridge	United Kingdom
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Track V - ⑤ - Several Fuels and Failure Modes , 8:30-10:20

Venue Room-4 (Meeting Room 4)

Chairs Ian PORTER , Yoshihisa IKUSAWA

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Fuel Rod Cladding Impact on Time at Temperature at Post-CHF Conditions Based on Single Rod Thermal Hydraulic Testing for Uncoated and Cr-coated Zr Cladding	Zeses Karoutas	Westinghouse Electric Company	United States
8:50	9:10	Evaluation of Uniform Elongation for Hydrogen-Based Transient Cladding Strain Limit	Guirong Pan	Nuclear Fuel, Westinghouse Electric Company, 5801 Bluff Road, 29061 Hopkins, SC - United States of America	United States
9:10	9:30	A fracture prediction methodology for cladding tube in bending conditions from metallography analysis	S��verine Guilbert	ASNR	France
9:30	9:50	Iodine-Induced Stress Corrosion Cracking of Zr-1%Nb Fuel Cladding	MI WANG	Studsvik Nuclear AB	Sweden
9:50	10:10	Investigating Cladding Performance beyond the Critical Heat Flux through Rapid Thermal Transients	Mackenzie Ridley	Oak Ridge National Laboratory	United States

Track II - ⑤ - Additive Manufacturing & Fabrication , 8:30-10:20

Venue Room-5 (Meeting Room 5)

Chairs Cristina Munoz-Reja RUIZ , Ryosuke OZEKI

Time		Paper	Speaker	Affiliation	Country/Region
8:30	8:50	Advances in Additive Manufacturing of Uranium Dioxide for Innovative Fuel Designs	Anil Prasad	Canadian Nuclear Laboratories	Canada
8:50	9:10	Additive manufacturing of nuclear fuel components	Stanislav Linhart	ALVEL, a.s.	Czechia
9:10	9:30	Westinghouse Experience with Additively Manufactured Fuel Components	Uffe Bergmann	Westinghouse Electric Company	United States
9:30	9:50	Advancing Nuclear Energy Through Additive Manufacturing: First Commercial Deployment	William Thomas Cleary	Westinghouse Electric LLC	United States
9:50	10:10	Additive Manufacturing of nuclear fuel components: from incremental implementation to disruptive component developments	Didier Bardel	Framatome SAS	France

Track III - ⑦ - Mechanical and Thermal Characterization for ATF Cladding , 10:35-12:25*Venue Room-1 (Hall)**Chairs Yuta SHIMOYAMA , David KERMERMAN*

Time		Paper	Speaker	Affiliation	Country/Region
10:35	10:55	Mandrel Ductility Tests with ATF Claddings	Márton Király	HUN-REN Centre for Energy Research	Hungary
10:55	11:15	Temperature-Dependent Cracking Mechanisms of the Chromium Coating Layer on Zircaloy Cladding under Multiaxial Stress	Hyuntaek Rho	Seoul National University	Republic of Korea
11:15	11:35	In-situ Observation System for Tensile Fracture Behavior of Cr Coating on Zircaloy-4 under High Temperature using Three-Point Bending Test	Koichi Ogata	MHI Nuclear Development Corporation	Japan

Track IV - ⑧ - Modeling for Advanced Technology Fuels (ATF) II , 10:35-12:25*Venue Room-2 (Meeting Room 1&2)**Chairs Yuji OHISHI , Junji MATSUNAGA*

Time		Paper	Speaker	Affiliation	Country/Region
10:35	10:55	Evaluation of the Performance of LEU+ Fuel Rods in a SMR	Sunguk Lee	Korea Atomic Energy Research Institute	Republic of Korea
10:55	11:15	An Advanced Group Constant Functionalization Methodology for LEU+ Nuclear Fuel	Sunghyun Cho	Hanyang University	Republic of Korea
11:15	11:35	Thermomechanical simulation of microcell CERMET fuel under irradiation	Veronica D'Ambrosi	CEA	France
11:35	11:55	Evaluation of nuclear-grade FeCrAl alloys claddings for Small Modular Reactor applications	Zaira I. Jiménez Balbuena	Karlsruhe Institute of Technology	Germany

Track VI - ④ - Cladding Integrity in Dry Storage , 10:35-12:25*Venue Room-3 (Meeting Room 3)**Chairs Yongdeog KIM , Mi WANG*

Time		Paper	Speaker	Affiliation	Country/Region
10:35	10:55	Overview over the first Long-Term Experimental Dry Storage Analysis (LEDA) campaign	Peter Kaufholz	BGZ Gesellschaft für Zwischenlagerung mbH	Germany
10:55	11:15	Quantitative Characterization of Zirconium Hydride Morphology Using Machine Learning-Based Image Analysis	Okan Yetik	BGZ Gesellschaft für Zwischenlagerung mbH	Germany
11:15	11:35	Hydrogen and Hydrides Distribution in Claddings – Investigations with High-Resolution Neutron Imaging	Johannes Bertsch	Paul Scherrer Institut	Switzerland
11:35	11:55	Thermal Analysis of Hydride Solubility in Zircaloy-2 Cladding with Inner Liner.	Liliana Duarte	Paul Scherrer Institut	Switzerland

Track V - ⑥ - Modeling on LOCA , 10:35-12:25*Venue Room-4 (Meeting Room 4)**Chairs Takafumi NARUKAWA , Tatsuya SASAKAWA*

Time		Paper	Speaker	Affiliation	Country/Region
10:35	10:55	Thermomechanical Modeling of Uncoated and Chromium-Coated Zircaloy Fuel Cladding under Loss of Coolant Accident Conditions using the BISON Fuel Performance Code	Jennifer Espersen	University of Tennessee-Knoxville/Idaho National Laboratory	United States
10:55	11:15	Semi-integral LOCA test modeling with DRACCAR: comparison of JAEA and SCIP cases	Cédric Leclerc	Autorité de Sûreté Nucléaire et de Radioprotection	France
11:15	11:35	Multi-scale Modelling of LWR High-Burnup Fuel Fragmentation and Relocation under LOCA Condition	Tian Zhang	Harbin Engineering University	China
11:35	11:55	Modeling of Semi-Integral LOCA Tests and Reactor Case Using a Simplified 1D Simulation Approach	Julian Soulacroix	Electricite de France	France

Track II - ⑥ - Fuel Assembly Mechanical Design , 10:35-12:25*Venue Room-5 (Meeting Room 5)**Chairs Stanislav LINHART , Jun ADACHI*

Time		Paper	Speaker	Affiliation	Country/Region
10:35	10:55	Preliminary Thermal-Hydraulic Study of a Wire Inserted in a PWR Fuel Cell	Antonino Romano	ENUSA	Spain
10:55	11:15	Identification and Characterization of Swirl-Induced Vortices in a Helical Cruciform Fuel Assembly Using MRV and CFD	Hyeonggi Moon	Hanyang University	Republic of Korea
11:15	11:35	Development Status of High-Performance Spacer Grid for Future PWR Fuel Assemblies at NFI	Junya Inoue	Nuclear Fuel Industries, Ltd.	Japan
11:35	11:55	Development and Seismic Performance Evaluation of an Improved Spacer Grid Design for M-ReX™	Taichi Fukuoka	Mitsubishi Heavy Industries, Ltd.	Japan
11:55	12:15	Recent Developments in Fuel Spacer Grid Characterization for Seismic Strength at Framatome	Victor Hatman	Framatome SAS	United States

Track IV - ⑨ - Fuel Performance Code III (OFFBEAT) , 13:55-15:25*Venue Room-1 (Hall)**Chairs Jérôme SERCOMBE , Shigeru KUREMATSU*

Time	Paper	Speaker	Affiliation	Country/Region
13:55 14:15	Development of a high-fidelity PCMI database using multidimensional OFFBEAT simulations for surrogate modeling in nuclear fuel performance codes	Marco Barbieri	University of Bologna	Italy
14:15 14:35	Reduced order modelling of PCMI with machine learning	Janne Heikinheimo	VTT Technical Research Centre of Finland Ltd	Finland
14:35 14:55	Uncertainty Quantification and Sensitivity Analysis in Multidimensional PCMI Modeling: OFFBEAT Coupled with DAKOTA for Risø-III Cases AN3 and AN8	Carlos Aguado	Centro de Investigaciones Energéticas, MedioAmbientales y Tecnológicas	Spain
14:55 15:15	A mechanistic framework for deriving fuel relocation models for 1D fuel performance codes from 3D fragment simulations	Milica Krstovic	Laboratory for Reactor Physics and Systems Behaviour / École Polytechnique Fédérale de Lausanne	Switzerland

Track VII - ⑧ - Fuel Supply & Fabrication , 13:55-15:25*Venue Room-2 (Meeting Room 1&2)**Chairs Shuhei MIWA , Caleb Patrick MASSEY*

Time	Paper	Speaker	Affiliation	Country/Region
13:55 14:15	Fuel supply strategies for SMR-powered data centers: an AHP framework to prioritize LEU, LEU+, and HALEU routes	Cristian Garrido Tamm	IDOM	Spain
14:15 14:35	Deriving Enabling Technologies for TRU Fuel Deployment in SMRs: An LLM-Based AHP Approach	SunWoo Park	Korea Advanced Institute of Science and Technology	Republic of Korea

Track III - ⑧ - Analysis and Evaluation of ATF Behavior and Performance , 13:55-15:25*Venue Room-3 (Meeting Room 3)**Chairs Yuji OKADA , Dong-Joo KIM*

Time	Paper	Speaker	Affiliation	Country/Region
13:55 14:15	Experimental Analysis with FEMAXI-8.1 on Fuel Performance of Cr-coated Zircaloy Cladding with UO ₂	Ria Mishima	Japan Atomic Energy Agency	Japan
14:15 14:35	Comparative Study on a Design Basis Accident Analysis for a Zircaloy-based Fuel and Accident Tolerant Fuel Using MARS-KS Code	Ju Yeop Park	Korea Institute of Nuclear Safety	Republic of Korea
14:35 14:55	FEMAXI-ATF Fuel Performance Analysis on Dual-layered SiC Cladded Fuel Involving PCMI During Normal Operation	Yamato Oikawa	Waseda University	Japan

Track II - ⑦ - Advanced Cladding Materials , 13:55-15:25*Venue Room-4 (Meeting Room 4)**Chairs Zeses KAROUTAS , Daiki SATO*

Time	Paper	Speaker	Affiliation	Country/Region
13:55 14:15	NEA Second Framework for Irradiation Experiments FIDES-II: progress of the Framework and future prospects	Ville Tulkki	Nuclear Energy Agency	France
14:15 14:35	Neutron irradiation and post-irradiation examinations of SiC-based composite materials for the development of accident-tolerant LWR fuel cladding	Takaaki Koyanagi	Oak Ridge National Laboratory	United States
14:35 14:55	In situ micromechanical investigation of mechanically loaded SiC/SiC cladding	Spencer Doran	Oregon State University	United States
14:55 15:15	Nitride Dispersion Strengthened FeCrAl alloy during Laser Powder Bed Fusion for the Accident Tolerant Fuel Cladding Materials	Jung-Wook Cho	Pohang University of Science and Technology	Republic of Korea

Track V - ⑦ - Modeling and Analysis Methods I , 13:55-15:25*Venue Room-5 (Meeting Room 5)**Chairs Jean Jérôme VERMOYAL , Masaaki YAMATO*

Time	Paper	Speaker	Affiliation	Country/Region
13:55 14:15	Steady-state Assessment of Post-CHF Models for Time-at-temperature Applications	Jean-Marie Le Corre	Westinghouse Electric Sweden AB	Sweden
14:15 14:35	Development of Integrated Code based on Segmented Fuel Performance and Subchannel-Scale Thermal Hydraulics Codes for LOCA analysis	Jae Ryong Lee	Korea Atomic Energy Research Institute	Republic of Korea
14:35 14:55	Multiphysics simulation of LOC-C-4 scenario using MERCURY V1.0 and MARS-KS 2.0	Hyochan Kim	Korea Atomic Energy Research Institute	Republic of Korea
14:55 15:15	MELCOR v2.2 Analysis of the QUENCH-19 Bundle Test: Best Estimate and Uncertainty Quantification Results	Mauricio Exequiel Cazado	Karlsruhe Institute of Technology	Germany

Track IV - ⑩ - Thermal-Hydraulic Modeling , 15:30-16:40*Venue Room-1 (Hall)**Chairs Junji MATSUNAGA , Yutaka UDAGAWA*

Time	Paper	Speaker	Affiliation	Country/Region
15:30 15:50	COBA Insert for Cobalt-60 Production in PWR, Part 2: CFD Analyses of the Separate Effect Tests	Tatiana Sieraferas	Westinghouse Electric Company	United States
15:50 16:10	Development of a Flow Regime Identification Method for Gas-Liquid Two-Phase Flow in a Vertical Pipe toward Rod Bundle Applications	Daisuke Moriguchi	MHI Nuclear Development Corporation	Japan
16:10 16:30	New Capabilities for Testing Full-Length assembly Components	William Byers	Westinghouse Electric Company LLC	United States

Track III - ⑨ - Advanced UO₂ Fuel Pellet Research , 15:30-16:40*Venue Room-3 (Meeting Room 3)**Chairs Afiqa MOHAMAD , Tian ZHANG*

Time	Paper	Speaker	Affiliation	Country/Region
15:30 15:50	Separate-Effects Investigation of Fission Gas Behavior in UO ₂ with Controlled Cr ₂ O ₃ Doping and Grain Size	Tianyi Chen	Oregon State University	United States
15:50 16:10	Fabrication and Optimization of Microcell UO ₂ Fuel for Industrial Application	Yunsong Jung	Korea Atomic Energy Research Institute	Republic of Korea
16:10 16:30	Atomic-level structural characterization of irradiated UO ₂ crystallites in high burnup spent fuel by advanced synchrotron-based techniques	Goutam Kuri	PSI Center for Nuclear Engineering and Sciences	Switzerland

Track VI - ⑤ - Validation Studies for Spent Fuel Safety , 15:30-16:40*Venue Room-4 (Meeting Room 4)**Chairs Masumi WATARU , Ryo ISHIBASHI*

Time	Paper	Speaker	Affiliation	Country/Region
15:30 15:50	The BWR Fuel Storage Demonstration Project in Taiwan: Methodology and Preliminary Results	Yi-Fan Tseng	National Atomic Research Institute	Taiwan
15:50 16:10	Comparison of Computational Results Using Different Approaches to Clad Decay Heat Measurements	Hatice Akkurt	EPRI	United States

Track V - ⑧ - Modeling and Analysis Methods II , 15:30-16:40*Venue Room-5 (Meeting Room 5)**Chairs Jinya KATSUYAMA , Yoshihisa IKUSAWA*

Time	Paper	Speaker	Affiliation	Country/Region
15:30 15:50	Validation and Uncertainty Analysis of FFRD Model Implemented in RELAP5 Code	Ikuo Kinoshita	Institute of Nuclear Safety System, Inc.	Japan
15:50 16:10	MODELING THE DISPERSAL OF FUEL FRAGMENTS USING DISCRETE ELEMENT METHODE (DEM)	Thibault BESSIERE	EDF R&D Les Renardières 77250 MORET SUR LOING	France
16:10 16:30	2D simulation of fuel fragmentation and dispersal during RIA tests with ALCYONE	Jerome Sercombe	CEA	France

Track IV - ⑪ - Modeling for Fuel Behavior , 16:55-18:45*Venue Room-1 (Hall)**Chairs Nathan CAPPS , HyoChan KIM*

Time		Paper	Speaker	Affiliation	Country/Region
16:55	17:15	Bayesian Machine Learning for Identifying High-Impact Fuel Material Parameters in LWRs	Donguk Kim	Seoul National University	Republic of Korea
17:15	17:35	A two-stage nucleation model with incubation effect for hydride precipitation in zirconium alloys	Mikhail Kolesnik	Karlsruhe Institute of Technology	Germany
17:35	17:55	Strength of zirconium alloy / zirconia system interface measured by laser shock adhesion test.	Victor Asensio	CEA	France

Track III - ⑩ - New Materials and Advanced Fuel Types for LWR , 16:55-18:45*Venue Room-3 (Meeting Room 3)**Chairs Yuta SHIMOYAMA , Yuji OKADA*

Time		Paper	Speaker	Affiliation	Country/Region
16:55	17:15	Practical Development of Accident Tolerant FeCrAl-ODS Fuel Claddings for BWRs in Japan	Kan Sakamoto	Nippon Nuclear Fuel Development, Co., Ltd.	Japan
17:15	17:35	Effect of Neutron Irradiation on Hydrothermal Corrosion Behavior of Silicon Carbide and Titanium Coating Applied Thereon in Simulated BWR-NWC Environment	Ryo Ishibashi	Hitachi GE Vernova Nuclear Energy, Ltd.	Japan
17:35	17:55	Advancing Accident-Tolerant Fuel: SiC Ceramic Matrix Composites for Enhanced Nuclear Safety	Peng Xu	Idaho National Laboratory	United States
17:55	18:15	"Development of Non-Destructive x-ray computed tomography techniques for Inspection and Evaluation of SiC-SiC composite tubes"	David Arregui-Mena	Oak Ridge National Laboratory	United States
18:15	18:35	Evaluation of Post-CHF Performance in Lightbridge Fuel™ Under Locked Rotor Conditions	Birol Aktas	Lightbridge Corporation	United States

Track VI - ⑥ - Safety Analysis for Dry Storage and Transportation , 16:55-18:45*Venue Room-4 (Meeting Room 4)**Chairs Kiyong KIM , Per MAGNUSSON*

Time		Paper	Speaker	Affiliation	Country/Region
16:55	17:15	Development of a Fast Optimization Tool for Spent Nuclear Fuel Loading Configuration in Canisters Using Linear Assignment and View Factor Matrix	Jeseok Song	KEPCO International Nuclear Graduate School	Republic of Korea
17:15	17:35	Development of Radionuclide Source Terms for Material At Risk Evaluation Based on CISCC Failure Modes in Dry Storage Canisters	HYEONYEONG LEE	KEPCO International Nuclear Graduate School	Republic of Korea
17:35	17:55	Impact of Plastic Deformation on Hydride Reorientation in Zirconium Alloy Cladding	JUNHEE LIM	Seoul National University	Republic of Korea
17:55	18:15	Redefining Cladding Gross Ruptures for Used Fuel Management	Ricardo Torres	Electric Power Research Institute	United States

Track II - ⑧ - Neutron Absorber Technologies and Applications , 16:55-18:45*Venue Room-5 (Meeting Room 5)**Chairs Ryosuke OZEKI , Cristina Munoz-Reja RUIZ*

Time		Paper	Speaker	Affiliation	Country/Region
16:55	17:15	A Comparative Core Design on LEU+ PWR with Modified Lattice Geometry using IGD and HIGA Burnable Absorbers	Minki Kim	Hanyang University	Republic of Korea
17:15	17:35	COBA INSERT FOR COBALT-60 PRODUCTION IN PWR, PART 1: AN INTEGRAL THERMAL HYDRAULIC TEST AND CFD ANALYSIS	Liping Cao	Westinghouse Electric Company LLC	United States
17:35	17:55	High-temperature compatibility of novel neutron absorbers with core structural materials and (U,Zr) O ₂ mixed oxides for development of accident-tolerant control rods in light water reactors	Kinya Nakamura	CRIEPI	Japan
17:55	18:15	IRRADIATION ASSISTED STRESS CORROSION CRACKING PREVENTION IN BOILING WATER REACTOR CONTROL ROD BLADES – WESTINGHOUSE EXPERIENCE	Pyy Savolainen	Westinghouse Electric Sweden AB	Sweden
18:15	18:35	Innovative Methodologies for Neutron Absorber in LEU+ Spent Fuel Storage to Ensure Subcriticality	YUJIN YANG	POSTECH	Republic of Korea

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